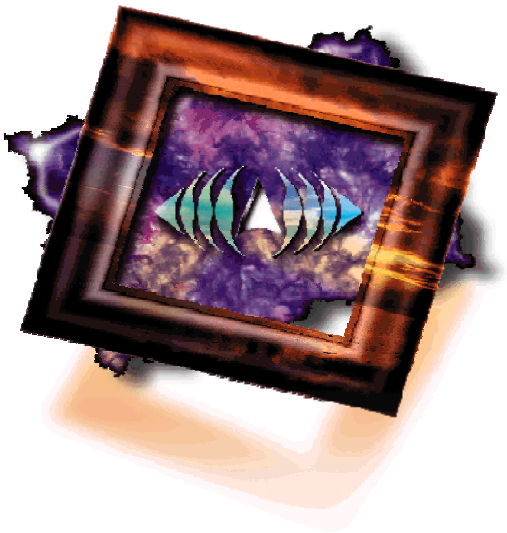
Kyoto energypark

Appendix K

Socio-economic Impact Assessment
Key Insights Pty Ltd
(5 Sept 2008)

Attachment A- Community Information Day Report
Key Insights Pty Ltd
(25 Feb 2008)

pamada



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Kyoto Energy Park Scone

Socio-Economic Impact Assessment

Pamada Pty Ltd

Prepared By

Key Insights Pty Ltd

5th September, 2008

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1 Executive Summary

This Socio-Economic Assessment (SEIA) evaluates the likely social and economic impacts associated with the proposed Kyoto Energy Park Development. This assessment will be used to inform part of the environmental assessment being submitted to the Director General NSW Department of Planning, as a project of state significance under Part 3A of the Environment Planning and Assessment Act 1979.

The proposed project site is located on the property of a single landholder, approximately 12km West of Scone, within the Upper Hunter Shire Council area. It is proposed that the Kyoto Energy Park will be situated on two land holdings; Middlebrook Station and Mountain Station with both properties accessed via Bunnan Road in separate locations. The completed development will comprise of wind-turbine generators (approximately 42), a solar photovoltaic plant, mini closed loop hydro-electric facility, ancillary equipment (tanks, facilities, roads, gates, sheds, and transformers), upgrade of local electricity network, a manager's residence, maintenance shed and a Visitor Education Centre. It is proposed that on completion, the Kyoto Energy Park will provide green renewable energy to the national electricity grid.

The scope of this Socio-Economic Study covers the wider Scone and Upper Hunter Region, due to the impacts affecting both residents within the direct vicinity of the development site and those residing in the wider region. This study has been informed by a Planning and policy analysis, Demographic profile, Economic assessment, Impact analysis, and Community consultations; consisting of an overview of media coverage, revision of preliminary consultations undertaken by Pamada Pty Ltd, interviews with key community organisations and resident feedback and responses received during a community information day.

Scone Profile

Scone is situated on the traditional lands of the Indigenous Wanaruah people. The area was first settled by Europeans in 1825 who established successful agricultural production. Scone's history of land-based production and activities now form the foundations of its modern economy that is predominantly based on its equine and agricultural industries, and also a resultant retail sector. Scone's extensive history with horses and its presently strong equine industry; including studs, research, festivals and competitions, has led it to become known as the "Horse Capital of Australia"[1].

Scone has a population of 5,080 people and falls within the Upper Hunter Shire Council, which was formed in 2004 when the shires of Scone, Merriwa and Murrurundi were amalgamated.

Economic Impacts

The manufacturing and construction phase represents the largest economic component of the project, with ongoing jobs and expenditure being modest in comparison to these initial stages.

Initial estimates by Pamada reveal a total expected expenditure on the project of between 140 and 190 million dollars.

The Kyoto Energy Park is proposed to include up to 42 wind turbines creating in the range of 89MW to 126MW. The table below outlines the potential direct jobs created in the manufacture and installation of wind turbines as

[1] www.upperhuntertourism.com.au

part of Kyoto Energy Park. Table 1 utilises the figures of 7.5 total job-years per MW and 3.7 Australian job-years per MW for the manufacture and installation stages[2].

Table 1: Wind Turbine Construction and Installation: Direct Job years

	Total direct job-years (7.5 per MW)	Total direct Australian Job-years (3.7 per MW)
89MW	668	329
126MW	945	466

The wind component of the park will provide ongoing employment in the area of operation and maintenance. This is estimated to be in the order of 10.2- 14.4 fulltime equivalent jobs. Pamada report that the solar and hydro components operate at high efficiencies with low maintenance relative to the wind farm component. Accordingly, additional employment for the solar and mini hydro components is not expected as resources would be pooled into the wind farm component.

Multiplier effects will be felt throughout the region and further afield as firms supply inputs for manufacture and construction, and corresponding wages are expended. Quantifying the employment effects resulting from multipliers is difficult due to the complex and emerging nature of the renewable energy sector. Estimates based upon the expected output from wind power at the Kyoto energy park and multiplier estimates from the literature for indirect jobs associated with the project give a range of between 1351 and 1,911 Australian job years.

The economic impact of construction of buildings on site can be assessed using standard ABS multipliers for the construction industry. The expected expenditure of $1.5M on such buildings is expected to create 14 direct jobs and a further 43 indirect jobs.

The addition of a tourism component in the form of the Visitor Education Centre would provide further economic benefit to the local area. It would provide employment on the site and additional income from visitors. As a consequence other businesses in the area may benefit; especially those equipped to supply the tourist trade such as accommodation and food providers. Other tourism drawcards for the Upper Hunter (such as the equine industry) may also benefit from the increased profile that Scone and the Upper Hunter would receive as a supplier of renewable energy.

The presence of the Kyoto Energy Park will also provide an additional source of revenue, in terms of leases, to the land holders where the park will be located. The expenditure of this income by the land owners in the local area will further benefit the economy.

Stakeholder Consultation

A Community Information day was facilitated to engage community residents and record their feedback and opinions towards the proposed development. The positive response to the Community Information Day indicated that whilst opposition may still be strong in a proportion of the community, support does exist for the project, with some people still undecided as to whether they are in support or opposition to the development. Most notably, Key Insights recommends a 'near neighbours' communication strategy be created and implemented for ongoing community consultation during construction and operation phases of the project.

[2] A "job year" represents the creation of one job for the period of 12 months. This measure is commonly used for construction type projects where significant employment is likely to be created, although jobs created are not for an indefinite period, rather, they are for the life of the project. The figures of 3.7 and 7.5 job years per MW are drawn from a table in Dr. Robert Passey's report: "Driving Investment, Generating Jobs: Wind Energy as a Powerhouse for Rural and Regional Development in Australia. (2003)

During community and organisational consultations arguments have emerged in support and opposition to the proposal. Community members who are opposed to the development are predominantly concerned over visual, noise and land value impacts (predominantly from surrounding/adjoining residents). Community members who are in favour of the development see Kyoto Energy Park as an opportunity to support environmental sustainability, renewable energy use, and regional economic benefits (predominantly residents from the wider Scone and Upper Hunter communities).

Impact Analysis

The Kyoto Energy Park proposal creates the opportunity to establish a sustainable energy market and provide renewable energy to regional markets. Furthermore, it creates the opportunity to contribute to state-wide greenhouse reduction and renewable energy targets, whilst promoting long-term environmental benefits. Through our research and consultations, key social and economic impacts have been identified.

Research indicates that the proposed development will have two levels of impacts; an overall minimal impact on the wider community and region, and a more significant impact on residents directly surrounding/adjoining the two development sites.

Potential positive socio-economic impacts associated with the proposed development include:

- Creation of **employment opportunities for local residents** during construction and operational phases.
- The proposed development will **provide significant environmental benefits** through the promotion of renewable resources, its contribution to meeting regional, state and national greenhouse gas and climate change targets, and due to the proposed development generating no new emissions or pollution from its operation.
- The development will **contribute to local and regional economies**, via the potential use of local and regional resources and businesses during construction, and through the generation of increased tourism.
- Potential to **promote local culture and heritage** (Indigenous and non-Indigenous), to visitors, through the Visitor Education Information Centre.
- The Visitor Education Information Centre will **promote education and tourism**, as it will educate visitors, school groups and institutions about renewable energy with a functioning model.

Potential negative socio-economic impacts associated with the proposed development include:

- Assessments have concluded that the **visual and acoustic amenity** of selective near and adjoining neighbours may be adversely impacted. However, they also concluded that these impacts could be mitigated through planning and design. The extent of aesthetic impacts upon residents will also be dependent upon the attitudes of the individuals, towards the proposed development.
- The Land Value Impact Assessment concluded, "The wind farm development will initially have an effect on the amenity, lifestyle and non-agricultural development component of land values in the area. The worst case scenario is that properties in view of the wind farm will suffer a reduction in value. However, our experience and enquiries has shown that this reduction is more a consequence of the perception of negative effect than actual outcomes and once developments of this nature are in place, after a period of time (generally 1 to 2 years) the effect generally reduces to zero". **Potential short-term land devaluation** is seen to be a potential short-term negative impact, which has a high probability of being influenced by community perceptions. However, as stated in the Land valuation assessment, this impact may moderate itself over due course and become a neutral or positive impact.

On balance, the analysis informing this report concludes that the Kyoto Energy Park proposal has the potential to deliver net social and economic benefits to the wider community of Scone and Upper Hunter LGA. Overall, net social and economic benefits will be experienced by the wider communities of Scone and the Upper Hunter, whilst negative impacts will predominantly impact directly surrounding and adjoining properties and neighbours. However, the identified negative amenity impacts are subject to personal perceptions, with many being able to be mitigated and minimised through design and planning tools. Furthermore, it is anticipated that any adverse impacts on land values will be short lived, with the proposed development having no substantial long-term effects on land values.

Potential for negative social and community impacts are identified, however it needs to be viewed in context of wider regional benefits, shifts in common thinking towards climate change and greenhouse emissions, and policy and planning contexts.

1.1.1 Recommendations

Following is a statement of recommendations which has been developed to enhance positive impacts and mitigate negative impacts.

1. Adopt recommendations identified in the other expert consultant's reports, particularly those within the visual, aviation, electromagnetic interference, traffic and transportation, Aboriginal heritage, noise, shadow flicker and blade glint, bird impact and bushfire protection assessments.
2. Commit to establishing the Moobi Foundation, providing ongoing support and assistance to ensure prolonged success and positive community contributions.
3. Promote Scone and the Upper Hunter region through the proposed energy park and its associated activities, including tourism and education.
4. Utilise local and regional industries, businesses, resources and materials during both construction and operation, wherever possible, to enhance the local and regional economy.
5. Promote local heritage, history and communities (Indigenous and non-Indigenous) through the on-site visitor information centre.
6. Monitor environmental and amenity conditions (flora and fauna species, visual, acoustic) on an ongoing basis to ensure the development does not adversely impact any of these features, and mitigate any identified impacts when and where possible.
7. Minimise the impact of visiting groups, tourists and schools on local residents by restricting open hours of the Visitor Education Centre.
8. Develop a 'Near Neighbour Consultation Strategy' for ongoing proactive engagement and communication with surrounding and adjoining residents. Within this strategy, develop and implement policies which aim to increase project knowledge, increase information and Pamada staff accessibility, develop community-staff relations, create proactive engagement with residents, and establish strong relations with residents, especially those surrounding residents who may further require impacts to be directly mitigated or may further be affected by electricity connective infrastructure (I.e. Line easements, power lines and connection upgrades).
9. Improve community knowledge and strategically relay project information to Scone residents. Develop a regular newsletter to be distributed to surrounding residents, key community organisations and stakeholders, and that can be accessed via the Kyoto Energy Park website and be displayed on community

noticeboards and at local Council offices.

10. Address issues of 'missing' landholders. Include them on the map and consult with such residents where and when applicable to the research process.
11. Ensure questions raised by residents (recorded in qualitative feedback notes and feedback forms), at the Community Information Day are addressed as part of the Assessment process and also during further consultations and communications with community stakeholders.
12. Inform near neighbours and residents, particularly those living on access roads of the site, of schedule plans, particularly when increased levels of traffic or noise are expected during construction periods.
13. Establish and maintain an experienced 'Community Liaison/Relations Officer' position throughout the application, construction and operational phases of the development. This ensures the community has an ongoing and reliable 'point of contact' with Pamada, allowing concerns and questions to be relayed from the community directly to Pamada Pty Ltd.

2 Introduction

Pamada Pty Ltd is seeking to construct an Energy Park consisting of wind-turbine generators (approximately 42), solar photovoltaic plant, a mini closed loop hydro-electric facility, ancillary equipment (tanks, facilities, roads, gates, sheds, transformers), upgrade of local electricity network, a manager's residence, maintenance shed and a Visitor Education Centre. The proposed development will be a project of state significance and be assessed under Part 3A of the Environment Planning and Assessment Act 1979.

It is proposed that Kyoto Energy Park will be located on the property of single landholder, approximately 12km West of Scone, within the Upper Hunter Shire Council area. It is proposed that Kyoto Energy Park will be situated on two land holdings; Middlebrook Station, and Mountain Station, both accessible via Bunnan Road.

This Socio-Economic assessment evaluates the likely social and economic impacts associated with this development. The research includes a planning and policy review, demographic and community profile, economic analysis, community consultation, impact analysis of social and economic opportunities afforded by the development, and recommendations in response to the identified impacts.

Methodology

Key Insights Pty Ltd investigated the likely social and economic costs and benefits of the proposed Kyoto Energy Park development in line with the requirements of the Director General NSW Department of Planning, as a project of state significance under Part 3A of the Environment Planning and Assessment Act 1979. Key research areas included:

- Review of Council, agency and state planning and strategy documents to identify issues of relevance to the development.
- Demographic comparative profiles of the Scone, Upper Hunter LGA and NSW regions. Focuses' on growth trends, age distribution, local education and employment, transport needs and levels of education.
- Use of demographic material to identify trend data and population changes.
- Economic analysis of economic impacts and contribution to local and regional economies. Included are considerations of market dynamics, local and regional planning policy, tourism potential, and employment and income considerations.
- Consideration of economic impacts arising from both the construction and operational phases, based on standard economic multipliers.
- International research based on a comparative analysis which focuses on the economic impacts of wind farms on land value evaluations.
- Community and stakeholder consultation via telephone interviews, mail correspondence and a public Community Information Day. Consideration of identified community concerns and impacts, and assessment of such impacts, including mitigating negative impacts, improving community relations and making recommendations for future consultation strategies.
- Assessment of development against a social impact matrix and identification of groups that may be affected by such impacts.
- From this research, making recommendations about the development which will enhance positive impacts, mitigate any potential negative impacts, including the consideration of ongoing community consultative processes and mechanisms.

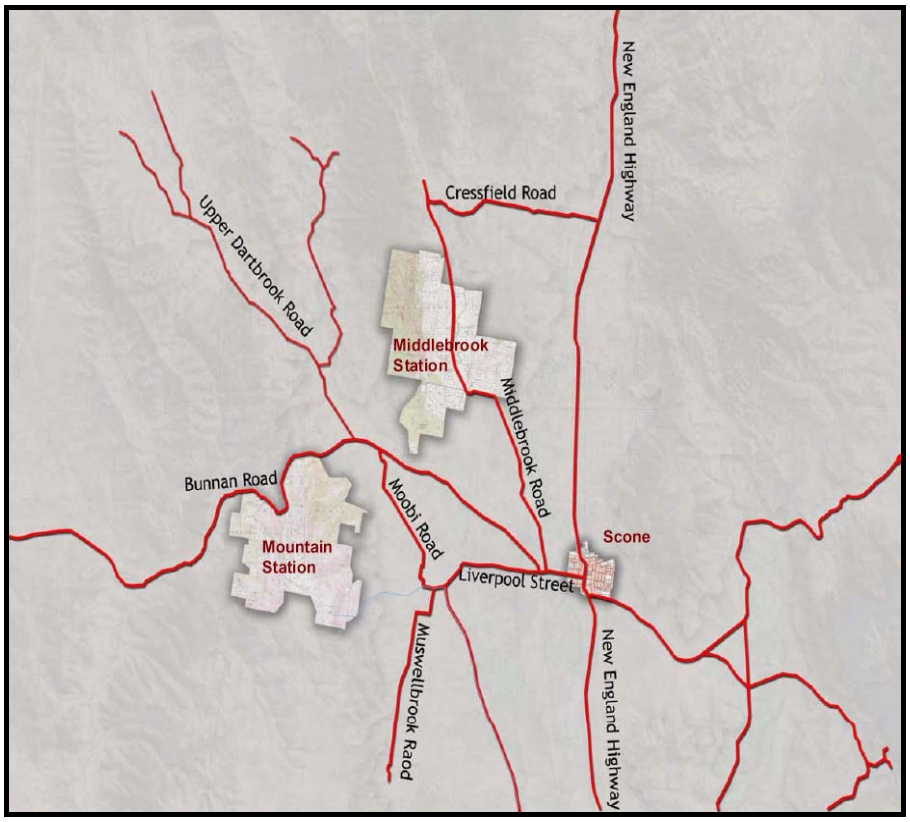
3 The Development

3.1 SITE DESCRIPTION AND LOCATION

The subject sites, identified in Figure 1, are located on two separate land holdings; Middlebrook Station and Mountain Station, approximately 12km west of the suburb of Scone.

Middlebrook Station is bounded by mountain ranges to the north, and a combination of vegetated and agricultural land to the east, south and west, whilst Mountain Station is bounded by agricultural land to the east and south, mountain ranges to the west, and Bunnan Road to the North.

Figure 1: Location of Proposed Kyoto Energy Park; Middlebrook Station and Mountain Station



The proposed sites, located within the Upper Hunter Council Shire are owned by a single landholder and currently consist of vegetated ranges.

3.2 PROPOSED USE

The two parcels of land, which are currently privately-owned vegetated ranges, will be developed into a renewable energy park. On completion, the development will consist of wind-turbine generators (approximately 42), solar photovoltaic Plant, mini closed loop hydro-electric facility, ancillary equipment (water tanks, facilities, roads, gates, sheds, transformers), upgrade of local electricity network, manager's residence, maintenance and a Visitor Education Centre.

3.2.1 Plans for the Development

Figure 2: General Kyoto Energy Park Site Locations

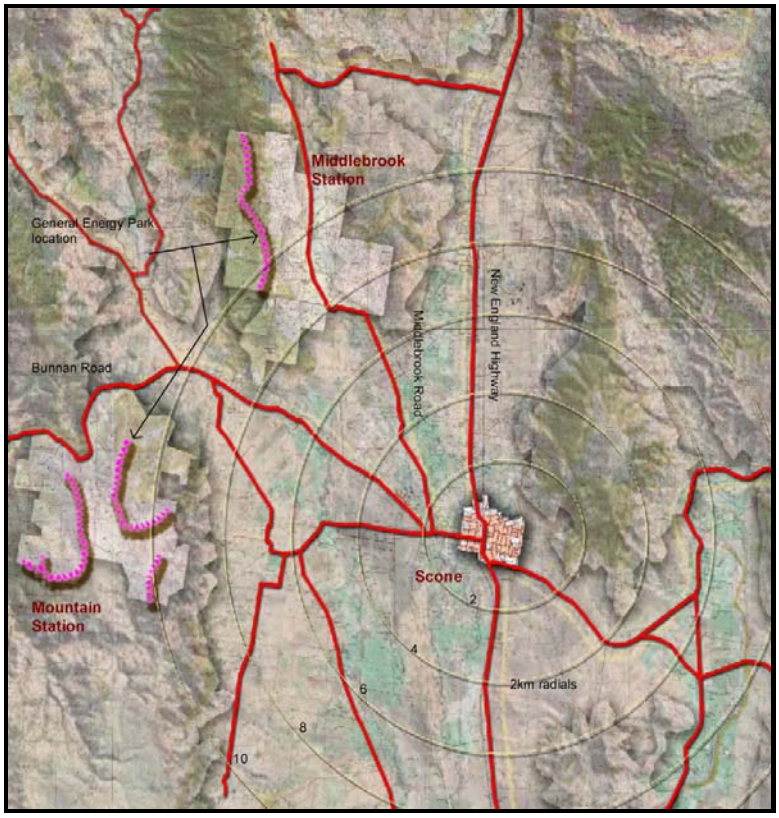


Figure 3: Mountain Station Site Arrangement Concept

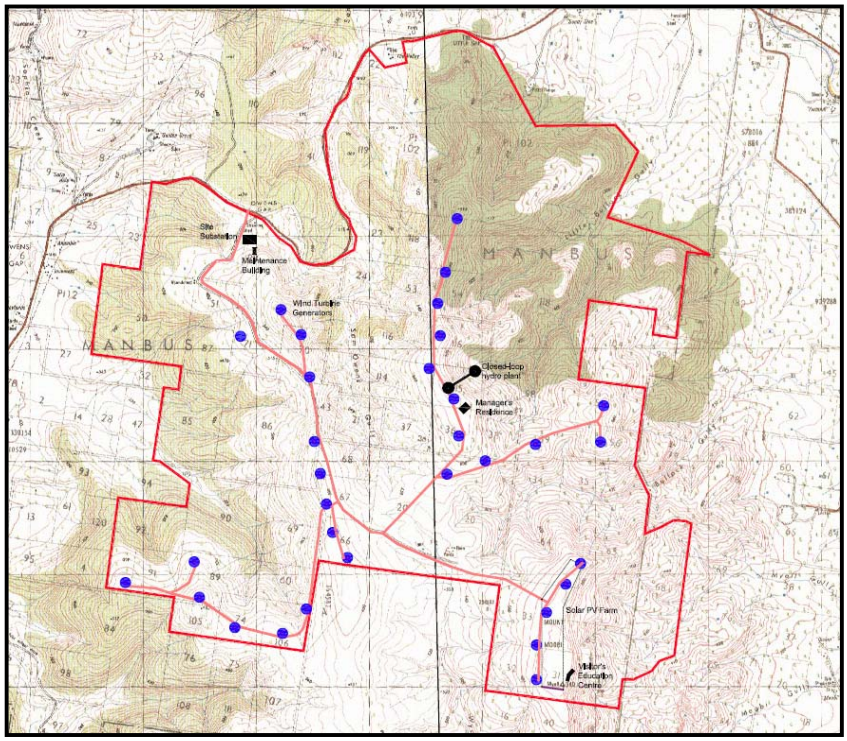
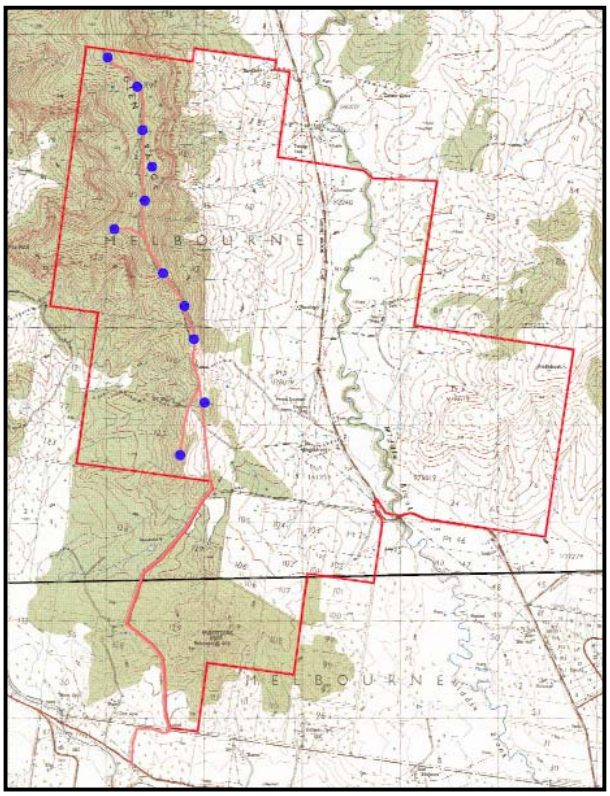


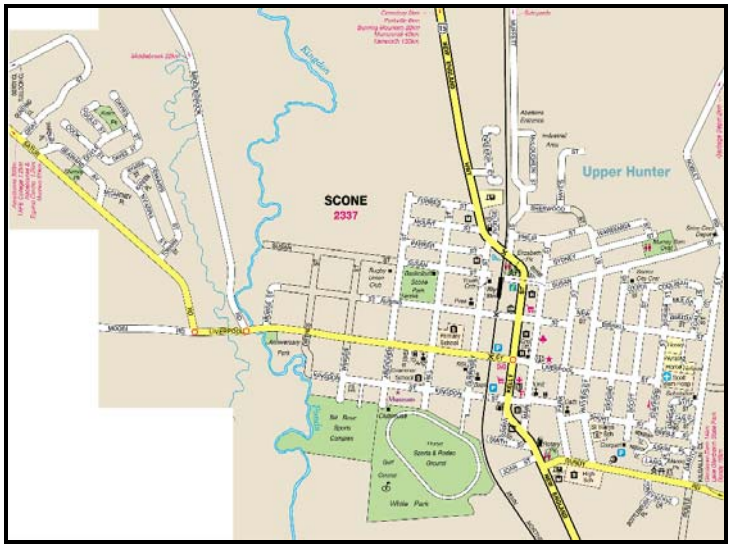
Figure 4: Middlebrook Station Site Arrangement Concept



3.3 ACCESS

The development site has ready access to Buchanans Valley and Merriwa along Merriwa Scone Road, Towarri National Park along Middlebrook Road, Aberdeen and Muswellbrook along the New England Highway, and Scone along Liverpool Street.

Figure 5: Suburb of Scone[3]



[3] Source: UBD Mapping Software

4 Planning and Policy Context

4.1 LOCAL/REGIONAL CONTEXT

This section identifies the local and regional policy frameworks that are applicable to the Kyoto Energy Park Proposal. It provides an overview of future plans and land use policies for the area and an insight into short, medium and long term goals and strategic priorities such as sustainable land management, economic growth and job creation, appropriate residential development, promoting tourism and supporting agricultural industries. Established policy frameworks outline strong support for sustainable practices and pursuing appropriate land development in order to improve the environment.

4.1.1 Draft Upper Hunter Land Use Strategy 2007

The Draft Upper Hunter Land Use Strategy identifies the future of the shire over the next 25 years, outlining key land use policies and principles for the Upper Hunter LGA and provides the planning context for the preparation of local environmental plan provisions. Issues raised in this strategy include future growth areas, planning objectives and infrastructure needs. The themes and issues applicable to a socio-economic investigation of the subject site are presented in the table below.

Table 2: Themes and Issues emerging from the Draft Upper Hunter Land Use Strategy

THEME	ISSUES DISCUSSED IN STRATEGY THAT ARE RELEVANT TO PROPOSAL
POPULATION	Population growth and development within the LGA is primarily concentrated around Scone and Aberdeen.
	Scone Population in 2001 was 4,962 and 5,085 in 2006. Scone town accounts for the majority of new residential development in the LGA. Current service provision is reasonably adequate, although there is a Council proposal for water supply upgrading. Additional residential and rural residential land is required if demand is to be met. Other long term issues are the provision of a heavy vehicle alternative route for the town and additional commercial and industrial land requirements.
EMPLOYMENT AND INDUSTRY	Key employment sectors are Agriculture (production and grazing, including beef, viticulture and dairying), Equine industry, Mining (coal and other minerals), and Tourism.
	In the LGA, mining (primarily coal) directly employed about 298 persons in 2001 and these employees comprised 4.9% of the workforce. Coal mining is expected to increase as a land use and economic activity affecting the future of the LGA. Mining has a range of environmental and social impacts which have potential to lead to conflict between other uses, and these impacts need to be taken into account in future land use planning. There is widespread community sensitivity about mining in the Upper Hunter LGA, particularly open cut coal mining and impacts of mining on prime agricultural land.
PROJECTED CHANGES, TRENDS AND PRESSURES OVER THE NEXT 25 YEARS TO BE NOTED	Increasing demand for maintaining environment and amenity and the 'tree change' lifestyle.
	Legislative requirements to protect biodiversity and maintain native vegetation.
	Opportunities for the development of alternative energy production and marketing of the clean green image of the LGA.
	Climate change leading to more variability in climate and reduced water security.
	Continued development and expansion of the equine industry with strong employment and service industry opportunities.

THEME	ISSUES DISCUSSED IN STRATEGY THAT ARE RELEVANT TO PROPOSAL
AIMS AND OBJECTIVES	Maintain the ecological values of conservation reserves, and recognise their other economic benefits, including their role in supporting tourism.
	To encourage appropriate and efficient use, development and management of land and natural resources by protecting, enhancing or conserving: i. prime crop and pasture land, and important agricultural resources ii. timber, minerals, soil, water and other natural resources, and iii. the environmental, scenic and cultural heritage of the LGA.
	To encourage adoption of land management practices which are sustainable over long periods of time without degradation of natural environmental systems.
	To enable public involvement and participation in environmental planning and assessment.
	To progress development in an orderly and economic manner.
	To consider and plan for anticipated climate changes.
CLIMATE CHANGE	Climate change has potentially significant implications for water supply, agriculture and rural land use, generally in the medium term. It also has significant implications for urban land use, There is a long term likelihood of greater frequency of extreme events (affecting natural hazards such as bushfires and flooding), increasing temperatures evaporation, and potential changes to seasonal patterns.
	Take into account the best available information on climate change scenarios for the Upper Hunter LGA in making strategic land use decision, especially for uses that are sensitive to climate change.
	The 3 major implications of climate change for agriculture will be change to the growing season (and number of frosts), the impacts on the availability of water (including total rainfall and higher evaporation), and lower predictability of climate.

4.1.2 2007/08 Upper Hunter Strategic Plan and Future Works Program

The Upper Hunter Strategic Plan and Future Works Program is a strategy which was created between Councillors, staff and community stakeholders to identify Council's short-term, medium-term and long-term goals. Within this document, Council's areas of influence, budget and best use of resources are outlined to determine how it will best achieve its goals and strategic milestones. Themes and issues applicable to a socio-economic investigation of the subject site are presented in the table below.

Table 3: Themes and Issues emerging from the 2007/08 Upper Hunter Strategic Plan and Future Works Program

THEME	ISSUES DISCUSSED IN PLAN THAT ARE RELEVANT TO PROPOSAL
MISSION, CHARTER AND CORPORATE VALUES	To build a prosperous environmentally sustainable future.
	To properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible.
	A Quality Rural Lifestyle - in a caring and thriving community.
ECONOMIC AFFAIRS	Provide support and assistance for projects within the Shire that provide economic growth or tourism potential within the Upper Hunter.
	Encourage sustainable development in the Upper Hunter Shire.
	Encourage young people to return to rural areas for employment.
TOURISM AND	Promote the Upper Hunter Shire and tourism within and outside the Shire.

THEME	ISSUES DISCUSSED IN PLAN THAT ARE RELEVANT TO PROPOSAL
SUSTAINABLE DEVELOPMENT	Promote unique "environmentally conscious" Scone businesses (tourist related) through the Hunter print media.
	Promote one-day tourist drives within the Shire and quantify the tourist traffic (vehicles, people).
	Enhance collaboration between those working in Tourism and Economic Development.

4.1.3 Upper Hunter Shire Council State of the Environment Report 2006

The Upper Hunter Shire Council State of the Environment Report 2006 is a compulsory annual report required under the NSW Local Government Act 1993, which 'contains information about the condition of the environment, pressures and the measures taken to alleviate those pressures during the reporting period'. It aims to educate the community about their local environment and how it is affected by human activities, and provides the community with an account of Government, Industry and Community activities aimed at restoring the environment. Themes and issues applicable to a socio-economic investigation of the subject site are presented in the table below.

Table 4: Themes and Issues emerging from the Upper Hunter Shire Council SOE Report 2006

THEME	ISSUES DISCUSSED IN REPORT THAT ARE RELEVANT TO PROPOSAL
POPULATION	The major challenge for human settlement is to maintain and enhance the prosperity and habitability of communities, but at the same time reduce their environmental impacts.
	With the exception of transportation, the major form of energy use within the community has been electricity. In 2004-2005 residential electricity use accounted for the use of 6,500,000 Kilowatt hours of energy. This equates to 1230 Kilowatt hours average energy use (in terms of electricity) for each household in the Upper Hunter LGA.
	Of all noise complaints made to Council between 2002-2006, barking dogs accounted for over 50% of complaints, with music being the next greatest complaint. Broader strategic land use planning aims to ensure that development is compatible to avoid noise related conflict. This may also include the incorporation of buffer zones between different land uses. The challenge in small townships is that most land uses are in close proximity to each other and current settlement patterns have made very little allowance for the incompatibility of land uses.
	Upper Hunter Shire Council considers the issue of tranquillity significant to the lifestyle choice of the population of the Shire. It takes careful consideration when considering the likelihood of noise generation by a development at the Development Application stage. Where noise is considered to be a potential issue the conditions of consent include requirements for noise mitigation measures such as noise attenuation barriers and hours of operation.
EMPLOYMENT AND INDUSTRY	The most important industries in terms of income and employment for the Upper Hunter are agriculture including intensive agriculture, grazing and animal husbandry. While the significance of agricultural production to the LGA is high there has been a general decline in the income viability of rural holdings as a result of drought, high input costs and relatively low commodity prices. The decline in the viability of the traditional agricultural sector places a number of pressures on the environment. These include many farmers are now seeking secondary employment in other industries such as mining or the horse industry.

THEME	ISSUES DISCUSSED IN REPORT THAT ARE RELEVANT TO PROPOSAL
	Because of the short fall in commercial and industrial land it is difficult to attract investment to the Upper Hunter LGA. This investment would create employment and enhance the economic sustainability of the region.
ENVIRONMENT AND SUSTAINABILITY	The strategic goals of the Upper Hunter Shire Council include: to actively support measures which enhance the local government area's natural resources and promote the principles of ecological sustainable development.
	Energy consumption is one of the major impacts of human settlements both in terms of the consumption of resources to produce this energy and the outputs (in terms of greenhouse gas emissions). Council sees the promotion of sustainable energy use as key role of the organisation in achieving the outcomes for the environment.
	The creation of electricity is a significant source of air contaminants within the Hunter Valley. Although there are no electricity generating facilities within the Upper Hunter Shire, the impact on air emissions from such sources on the region and the state should not be overlooked.
	Air quality in the Upper Hunter Shire is generally considered to be very high, the lack of heavy industry in the area means that the major impact on air quality are from vehicle emissions and agricultural related activities.
	The Upper Hunter Shire Council's Management Plan 2005 includes the objective of promoting economic development within the local government area. Land use change is often part of this economic development as businesses seek additional and appropriate land to carry out activities.
	Whilst no Council can afford to restrict all development, a balance must be obtained between development and environmental protection. In addition, approved developments should take all necessary precautions to protect the environment and to 'fit in' with the amenity of the area.
	The Upper Hunter Shire Council is currently preparing a Shire-Wide Strategy that will facilitate the implementation of ecologically sustainable development through identifying appropriate land uses and land use practices.

4.1.4 Upper Hunter Situation Analysis 2006

The purpose of the Upper Hunter Situation Analysis was to inform and support the preparation of the Upper Hunter Land use strategy and development of a new Local Environmental Plan (LEP). The Upper Hunter Situation Analysis provides a profile of the LGA, key land use planning issues, and establishes strategic priorities and actions for consideration during the development of the land use strategy and LEP. The themes and issues that were raised in the situation analysis that are relevant to this socio-economic study are discussed further.

The Situation Analysis identified four key issues which needed to be addressed in the Upper Hunter Land Use Strategy. Within each issue were a series of sub-issues. Those that are relevant to this investigation are cited below, including:

1. Promoting economic development, protecting employment opportunities and the natural resource base
    - Protection of agricultural land and viability
    - Climate change implications
    - Facilitating tourism development

2. Identifying future settlement needs
    - Providing and maintaining urban infrastructure
    - Urban sustainability
3. Providing rural residential subdivision and development
    - Service provision
4. Recognising environmental values, constraints and protection requirements
    - Environmental impacts from coal mining
    - Heritage issues
    - Scenic and cultural landscapes
    - Natural hazards
    - Land capability
    - Biodiversity and natural ecosystems

4.1.5 Hunter Regional Environment Plan 1989

The plan aims to promote the balanced development of the Hunter region through orderly economic development and the optimum use of the land and resources. It aims at delivering social and economic benefits to the community consistent with the conservation of natural and manmade features and so as to meet the needs and aspirations of the community.

To do this the legislation sets objectives for the future planning and development of the region, specifies regional policies to guide the preparation local environmental plans and development control plans and outlines principles relating to the future needs of the region. Relevant aspects of this legislative framework are summarised below;

Table 5: Themes and Issues emerging from the Hunter Regional Environment Plan 1989

THEME	ISSUES DISCUSSED IN REPORT THAT ARE RELEVANT TO PROPOSAL
ECONOMIC DEVELOPMENT: INDUSTRIAL DEVELOPMENT	The plan aims to ensure that sufficient zoned and serviced industrial land is provided in locations appropriate to the needs of industry, while ensuring protection of the environment, and to promote the distribution of employment in secondary industry in a manner compatible with the availability of services and distribution of population.
	Councils should ensure that an adequate supply of zoned and serviced industrial land is available in appropriate locations to meet needs, taking into account the extensive nature of modern industrial and quasi-industrial development.

	The legislation outlines what should be considered in a draft local environmental plan in relation to industrial development. Land for industrial development should only apply to land which is environmentally suitable. Where adequate water, sewerage and power services are available, or can be economically provided, to meet the demands of any industrial development which may be permissible under the provisions of that plan and should apply to land which can be adequately serviced by transport and is accessible from urban areas. In addition, a draft local environmental plan to allow the development of large scale, heavy or offensive industry should be prepared only after the Council has made an assessment of workforce accessibility, the visual impact of the development when viewed from a public place, the adequacy of buffer zones between the proposed industrial land and residential or commercial areas, pollution potential, and the need to avoid the intrusion of major new or upgraded traffic routes into residential areas.
LAND USE AND SETTLEMENT: RURAL LAND	Before granting consent to a development application for development on land identified as prime crop or pasture land Councils should take account of the views of officers of the Department of Agriculture and Fisheries on the effect of the development on the productive potential of the land and on the productive use and potential of adjoining lands.
	Councils, in consultation with officers of the Department of Agriculture, should undertake rural land studies in accordance with the Department of Urban Affairs and Planning's publication "Rural Lands Evaluation Manual 1988", aimed at protecting prime crop and pasture land, and identifying appropriate land uses and planning controls.
	Whilst no Council can afford to restrict all development, a balance must be obtained between development and environmental protection. In addition, approved developments should take all necessary precautions to protect the environment and to 'fit in' with the amenity of the area.
	The Upper Hunter Shire Council is currently preparing a Shire-Wide Strategy that will facilitate the implementation of ecologically sustainable development through identifying appropriate land uses and land use practices.

4.1.6 Scone Local Environment Plan (LEP)

This plan aims to encourage the proper management, development and conservation of natural and manmade resources within the local government area of Scone. The LEP works to protect, enhance and conserve important local agricultural resources (such as timber, minerals, soils, water and other natural resources), the scenic and rural landscape, and the environmental and cultural heritage of the local government area.

Under the Scone LEP the designated sites for the Kyoto Energy Park, Mountain Station and Middlebrook Station are subject to zoning restrictions. The Mountain Station site is defined by 1 (c) Rural Small Holdings, 1(d) Rural Holdings Zone and 1 (s) Small Farm zoning. The Middlebrook Station site is defined by 1(d) Rural Holdings Zone, 1(i) Intensive Agricultural Zone, 1(s) Small Farm Zoning and 7(a) Environmental Protection "A" - Scenic Zone. The following table outlines the objectives and development restrictions imposed under Councils zoning.

Table 6: Zoning Identified in the Scone Local Environment Plan

ZONING	IMPLICATIONS ON LAND USE
1 (c) RURAL SMALL HOLDINGS ZONE	1. Objectives of the zone
	(a) To make provision for small holdings in appropriate locations in response to genuine demand and having regard to accessibility, proximity to existing settlements and availability of services, the future expansion of existing settlements and the impact on agricultural activities;
	(b) To ensure that any land proposed to be utilised for small holding has been the subject of an independent environmental assessment and satisfies all relevant criteria (including water supply, effluent disposal, solid waste disposal and soil type) as determined by the Council for the location of such holding; and
	(c) To encourage only development which is sustainable and carried out in a manner that will not have any adverse impact on the environmental qualities of the locality, particularly, any adverse cumulative impacts.
	2. Without development consent
	Agriculture; bushfire hazard reduction; environmental conservation; home activities.
	3. Only with development consent
	Any purpose other than a purpose included in item 2 or 4.
	4. Prohibited
	Advertising structures (other than permitted by clause 33 of the Environmental Planning and Assessment Model Provisions 1980); automotive uses; boarding houses; brothels; bulk stores; clubs; commercial premises; funeral parlours; gas holders; generating works; hotels; industries (other than rural industries and home industries); institutions; intensive livestock keeping establishments; junk yards; liquid fuel depots; motels; motor showrooms; nuclear facilities; professional consulting rooms; residential buildings; sawmills; service stations; shops (other than general stores); transport terminals; warehouses, waste disposal facilities.
1(d) RURAL HOLDINGS ZONE	1. Objectives of the zone
	(a) To promote the conservation of agricultural holdings that are of sufficient area to be utilised for commercial farming practice;
	(b) To provide for a range of compatible land uses which maintain the rural environment, character and landscape of the locality;
	(c) To encourage only development which is ecologically sustainable and carried out in a manner that will not have any adverse impacts on the environmental qualities of the locality, particularly any adverse cumulative impacts; and
	2. Without development consent
	Agriculture; bushfire hazard reduction; environmental conservation; forestry - including plantation forestry; home activities.
	3. Only with development consent
	Any purpose other than a purpose included in item 2 or 4.
	4. Prohibited

ZONING	IMPLICATIONS ON LAND USE
	Advertising structures (other than permitted by clause 33 of the Environmental Planning and Assessment Model Provisions, 1980); automotive uses; boarding houses; brothels; bulk stores; clubs; commercial premises; funeral parlours; gas holders; generating works (other than eco-generating works); hotels; industries (other than extractive industries; rural industries and home industries);institutions; junk yards; motels; motor showrooms; nuclear facilities; professional consulting rooms; residential buildings; service stations; shops; warehouses; waste disposal facilities.
1(i) INTENSIVE AGRICULTURAL ZONE	1. Objectives of the zone
	(a) To conserve prime crop and pasture land which is suitable for intensive agricultural pursuits;
	(b) To encourage the development of intensive commercial agricultural enterprises which meet sustainable natural resource management principles and will not have any adverse impact on the environmental qualities of the locality, particularly any adverse cumulative impact;
	(c) To protect intensive agricultural enterprises from operational constraints caused by land use conflicts, especially those arising from a pressure to maintain a level of amenity more appropriate to a residential or hobby farming area;
	(d) To prevent the inappropriate use of land with a high potential for agricultural productivity (including to prevent its use for rural residential and hobby farm purposes);
	(e) To ensure that holdings used for the purpose of intensive agriculture are of a suitable size for that use;
	(f) To protect land within the zone from inefficiencies posed by excessive and non productive improvements, fragmentation of holdings and conflict between land uses;
	(g) To permit supporting, small scale and compatible value adding industries to intensive agriculture where they are ancillary to agriculture; and
	(h) To prevent adverse impact on the environmental qualities of the locality, particularly any adverse cumulative impact;
	2. Without development consent
	Agriculture; bushfire hazard reduction; environmental conservation; forestry - including plantation forestry; home activities; intensive agriculture.
	3. Only with development consent
	Any purpose other than a purpose included in item 2 or 4.
	4. Prohibited
	Advertising structures (other than permitted by clause 33 of the Environmental Planning and Assessment Model Provisions, 1980); automotive uses; boarding houses; brothels; bulk stores; clubs; commercial premises; funeral parlours; gas holders; generating hotels; industries (other than extractive industries; rural industries and home industries); institutions; junk yards; motor showrooms; nuclear facilities; professional consulting rooms; residential buildings; shops; waste disposal facilities; warehouses.
1(s) SMALL FARM ZONE	1. Objectives of the zone
	(a) To provide for a range of compatible land uses which maintain the rural environment, character and landscape of the locality;

ZONING	IMPLICATIONS ON LAND USE
	(b) To encourage only development which is sustainable and carried out in a manner that will not have any adverse impact on the environmental qualities of the locality, particularly any adverse cumulative impact;
	(c) To permit underground mining;
	(d) To provide for small scale farming in defined areas where the potential for conflict with sustainable natural resource management and with agricultural and other productive uses can be minimised; and
	(e) To permit non-agricultural land uses such as rural industries, tourist facilities and the like which are in keeping with the preceding zone objectives and which will not adversely affect agricultural productivity.
	2. Without development consent
	Agriculture; bushfire hazard reduction; environmental conservation; forestry - including plantation forestry; home activities; intensive agriculture.
	3. Only with development consent
	Any purpose other than a purpose included in item 2 or 4.
	4. Prohibited
	Advertising structures (other than permitted by clause 33 of the Environmental Planning and Assessment Model Provisions, 1980); automotive uses; boarding houses; brothels; bulk stores; clubs; commercial premises; funeral parlours; gas holders; generating works (other than eco-generating works); industries (other than extractive industries; rural industries and home industries); institutions; intensive livestock keeping establishments; junk yards; motor showrooms; nuclear facilities; professional consulting rooms; residential buildings; shops; service stations; waste disposal facilities; warehouses.
7(a) ENVIRONMENT PROTECTION "A" - SCENIC ZONE	1. Objectives of zone
	To protect hill land, escarpments and river valleys of scenic significance and permit a variety of uses subject to more particular control as, for example, in the choice of building materials, position of a building site, access roads and landscaping.
	2. Without development consent
	Home occupations.
	3. Only with development consent
	Agriculture; dams; animal boarding, breeding or training establishments; drainage; dwelling-houses; eco-generating works; forestry; home industries; hospitals; underground mines; open space; picnic grounds; places of public worship; recreation establishments; retail plant nurseries; roads; roadside stalls; tourist facilities; utility installations.
	4. Prohibited
	Any purpose other than those included in item 2 or 3.

Note: In December 2006 Scone Council passed Amendment 64 to alter restrictions on the use of land in Scone LEP. The amendment incorporates eco-generating works into parts 1(d), 1(s) and 7(a) as permissible with development consent. This change was made to allow the development of renewable energy in the region.

4.1.7 Upper Hunter Social/Community Plan 2006-2009

The Social/Community Plan identifies "the needs of the local community, including groups, and formulates access and equity activities that Council and/or other agencies could implement to address identified needs" (NSW Department of Local Government). Community consultation was incorporated when developing the plan and a

community survey identified the main issues as; improving local roads, provision of recycling equipment, promoting local employment, encouraging the establishment of new business in the Shire, environmental protection and weed control, provision of services and facilities for youth and managing appropriate development. These issues are addressed in supplementary Council reports and documents (such as the Scone LEP and Upper Hunter Strategic Plan and Future Works Program) that have been evaluated in other sections of this report.

4.2 STATE/NATIONAL CONTEXT

National and state legislative requirements have increased the demand for a sustainable energy supply. The following policies and plans promote the use of renewable energy by setting targets and requirements aimed at restructuring power generation activities in Australia. This national framework of legislative requirements and standards justifies and supports the future development of renewable infrastructure throughout Australia. The following section of this report will outline key strategies and plans related to the proposed Kyoto Energy Park.

4.2.1 Mandatory Renewable Energy Target Scheme

The *Mandatory Renewable Energy Target* is a national measure administered by the Office of Renewable Energy Regulator (ORER), under the Renewable Energy Act 2000. The MRET scheme, which commenced on 1 April 2001 aims to reduce greenhouse gas emissions and 'encourage the development of a more sustainable renewable energy supply industry'[4].

MRET requires that an additional 9,500 gigawatt hours (GWh) of renewable energy is generated per year by 2010. A 2003 Federal Government review[5] of the MRET recommended this figure be increased to 20,000 GWh annually by 2020; however the recommendation was not adopted.

Following this review, in December 2007 the Council of Australian Governments (COAG) agreed to begin an integration process, amalgamating all existing state-based renewable energy targets (RET) into the National Mandatory Renewable Energy Target[6]. Current MRET's will be extended under the National MRET with the Federal Minister for the Environment recently announcing that the National MRET's target would increase from 9,500 GWh to 45,000 GWh by 2020[7]. It is anticipated that this increase will be legislated in 2009.

The Mandatory Renewable Energy Target (MRET) places a legal liability on wholesale purchasers of electricity to proportionately contribute towards the generation of renewable energy. Purchasers annually buy a predetermined number of renewable energy certificates (RECs) proportionate to their acquisitions of electricity. Purchasers may make their own contracts with renewable energy providers or trade in RECs with prices negotiated on a case by case basis. Each REC is registered, validated and recorded on the publicly accessible REC Registry.

[4] Australian Government ORER, February 2008, *Fact Sheet: Mandatory Renewable Energy Target Overview*
[5] Published by the Australian Greenhouse Office, *Renewable Opportunities: A Review of the Operation of the Renewable Energy (Electricity) Act 2000*, September 2003,
[6] Energy Supply Association of Australia, Factsheet: Australia's Renewable Energy Target, sourced September 2008, http://www.esaa.com.au/renewable_energy_target.html.
[7] "To ensure the government achieves its goal of a 20 per cent share for renewable energy electricity supply by 2020 it will increase the MRET from 9 500 GWh to 45 000 GWh in 2020. The Department of Climate Change states that this measure will be phased out between 2020 and 2030 as emissions trading matures and prices become sufficient to ensure that an MRET is no longer required to stimulate development of renewable generation technologies". *Commonwealth of Australia,* 2008, National Market Driven Energy Efficiency Target Bill 2007 [2008] and Renewable Energy Legislation Amendment (Renewable Power Percentage) Bill 2008.

The proposed Kyoto Energy Park development will generate electricity from renewable resources, creating Renewable Energy Certificates (RECs). Under the MRET scheme, Kyoto Energy Park will create a Renewable Energy Certificate (REC) for each 1 MWh of renewable energy it generates. These RECs can then be sold or traded.

It is noted by Pamada that Kyoto Energy Park will not increase electricity prices for NSW residents or businesses due to the fact that the full costs of the MRET have already been taken into account in electricity prices by electricity retail companies. Pamada states that the proposed Kyoto Energy Park will reduce the costs of production by reducing electricity transmission losses to the region.

4.2.2 Draft Federal Emissions Trading Scheme (ETS)

The *Garnaut Climate Change Policy Report* examined the 'impacts of climate change on the Australian Economy, and recommended medium to long-term policies and policy frameworks to improve the prospects of sustainable prosperity'[8]. Reflecting the Commonwealth Government's commitment to implementing an emissions trading scheme (ETS) in 2010, the Garnaut Report produced an overview of an Emissions Trading Scheme Design, presented in **Table 7** below.

Table 7: Overview of the Garnaut Climate Change Review Proposed Design[9]

DESIGN DECISION	PROPOSAL
SETTING AN EMISSIONS LIMIT	The overall national emissions limit should be expressed as a trajectory of annual emissions targets over time, which define long-term budgets. A number of trajectories should be specified upon establishment of the scheme. The first, up to 2012, should be based on Australia's Kyoto commitments (Australia's existing emissions limit). The others, for the post-2012 period, should reflect increasing levels of ambition. Movement between them should be based on determining the comparability of Australia's response to international effort. In its supplementary draft and final reports, the Review will provide advice to government on budgets, trajectories and targets for an Australian emissions trading scheme.
CHANGES TO THE EMISSIONS LIMIT	Movement from one trajectory to another should only be on the basis of international policy developments and agreements (which should allow for new information and developments of an economic or scientific kind). Government should provide five years' notice of movement to another trajectory. Any gap between the domestic emissions trajectory and international commitments during this period would be reconciled by the purchasing of international permits.
COVERAGE	Gases: Six greenhouse gases as defined by the Kyoto Protocol. Sectors: Stationary energy, industrial processes, fugitives and transport from scheme outset. Waste and forestry to be included as soon as practicable. The inclusion of agriculture to be subject to progress on measurement and administration.

[8] Professor Ross Garnaut, *Garnaut Climate Change Review Draft Report*, June 2008, Commonwealth of Australia, p ix.
[9] Professor Ross Garnaut, *Garnaut Climate Change Review Draft Report*, June 2008, Commonwealth of Australia, pp 360-361.

DOMESTIC OFFSETS	Domestic offsets will have a small role, given broad coverage. Unlimited offset credits should be accepted from forestry before and during coverage in the scheme. The appropriateness of an offset regime for agriculture to be analysed further in the context of coverage of these emissions and advice provided in the supplementary draft and final reports.
POINT OF OBLIGATION	Set at point of emissions where efficient. An upstream or downstream point of obligation preferred where transaction costs are lower, accuracy of emissions measurement higher, or coverage greater.
ISSUING (OR RELEASING) PERMITS	Permits released according to emissions reduction trajectory. All permits auctioned at regular intervals. (Note: Some permits may be used in lieu of cash in providing assistance to eligible firms that are in trade-exposed, emissions-intensive industries.)
INTERNATIONAL LINKS	Opportunities for international linking of the Australian scheme should be sought in a judicious and calibrated manner.
PRICE CONTROLS	Not supported, except during transition period to end 2012.
INTER-TEMPORALITY (FLEXIBILITY IN TIME OF USE OF PERMITS)	Unlimited hoarding allowed. Official lending of permits by the independent carbon bank to the private sector allowed within five-year periods.
TREATMENT OF TRADE-EXPOSED, EMISSIONS-INTENSIVE INDUSTRIES	Global and sectoral agreements to achieve comparable treatment of emissions in important competitors to be pursed as a priority. If they have not been reached post-2012, assistance should be provided to account for material distortions arising from major trading competitors not adopting commensurate emissions constraints.
GOVERNANCE	Emissions limit and policy framework for the scheme set directly by government. Scheme administered by independent authority (independent carbon bank).
COMPLIANCE AND PENALTY	Penalty to be set as a compliance mechanism. Penalty does not replace obligation to acquit permits; a make-good provision would apply.
USE OF PERMIT REVENUE	Auctioning of all permits would provide a substantial amount of government revenue. All revenue to be returned to households or businesses after administrative costs of system. Competing priorities for this revenue include: • payments to trade-exposed, emissions-intensive firms • payments to households • support for investment in research, development and commercialisation of low-emissions technologies • cash reserves to purchase international permits/offsets to reconcile domestic emissions with international commitments.

It is anticipated that the Final Garnaut Report will be released late-September, followed by Treasury Modelling in October 2008 and a release of the Federal Government's Draft Carbon Pollution Reduction Scheme Legislation

in December 2008[10]. These releases will outline detailed information and features of the 2010 Emission Trading Scheme.

4.2.3 A New Direction for New South Wales; State Plan

The NSW State Plan is a strategy released in 2006 by and for the NSW State Government; outlining policies, future directions, targets and areas for action. It identifies goals and priorities for government and decision makers to focus upon and improve the quality of living for its residents; socially, economically and environmentally. The plan focuses on five key areas for action; Rights, Respect and Responsibility, Delivering Better Services, Fairness and Opportunity, Growing Prosperity across NSW, and Environment for Living. The NSW State Plan covered numerous issues and themes relevant to this socio-economic study of the proposed development. These are displayed in the table below.

Table 8: Priorities and Issues emerging from the New South Wales State Plan

PRIORITY	ISSUES DISCUSSED IN PLAN THAT ARE RELEVANT TO PROPOSAL
A RELIABLE ELECTRICITY SUPPLY WITH INCREASED USE OF RENEWABLE ENERGY	Promote more intensively the Greenpower program which allows customers to choose to have their electricity supplied from renewable sources for a small annual cost
	Achieve average electricity reliability for NSW of at least 99.98% by 2016
	By 2010, 10% of electricity consumed in NSW will be from renewable sources, rising to 15% by 2020
	Extend the NSW Greenhouse Gas Abatement Scheme which provides financial incentives for some types of renewable generation to be built
	Establish a NSW Renewable Energy Target
	Continue the Energy Savings Fund, a $200 million fund to support demand management and local renewable projects
CLEANER AIR AND PROGRESS ON GREENHOUSE GAS REDUCTIONS	Clean air target- we will meet national air quality goals as identified in the National Environment Protection Measure for Ambient Air Quality
	Greenhouse gas target- we will achieve 60% cut in greenhouse emissions by 2050 and a return to greenhouse gas emission levels by 2025

4.2.4 New South Wales Greenhouse Plan 2005

The NSW Greenhouse Plan sets out action for the NSW Government for the next three years and beyond - to reduce the emissions of its own activities and to work with other stakeholders to reduce the emissions from their activities. The main objectives of this Plan are to increase awareness among those expected to be most affected by the impacts of climate change, begin to develop adaptation strategies to those climate change impacts we cannot avoid and to put NSW on track to meeting its targets of limiting 2025 emissions to 2000 levels and reducing emissions by 60 per cent by 2050.

[10] Markovic, N & Fuller, N, August 2008. *Climate Change Negotiations*, Commonwealth of Australia, Foreign Affairs, Defence and Security Section, http://www.aph.gov.au/library/pubs/bn/2008-09/ClimateChangeNegotiations.htm#intro.

Table 9: Priorities and Issues emerging from the New South Wales Greenhouse Plan

PRIORITY	ISSUES DISCUSSED IN PLAN THAT ARE RELEVANT TO PROPOSAL
A CLEAN GREEN ENERGY FUTURE	The NSW government aims at encouraging low emission energy supply by implement a strategic response to meeting energy demand overall. The state government will encourage new forms of energy generation that have low emissions and support these industries through the use of an Energy Savings Fund that will stimulate investment in innovative savings measures.
	The Government will streamline development approvals for low emissions technology and offer Occupation Permits for wind powered generators on State Forests land.

4.2.5 Wind Farms and Landscape Values, National Assessment Framework

"The *Wind Farms and Landscape Values National Assessment Framework* is intended to provide a rigorous and transparent method for assessing, evaluating and managing the impact of wind farms on landscape values"[11]. This framework was based upon findings developed through a stringent research and consultation process, ensuring best-practice is used[12].

The *National Assessment Framework* highlights the importance of community involvement and consultation throughout the assessment process stating "successful implementation of this framework relies on the use of a range of professional skills including, but not limited to; natural and cultural heritage, community consultation and facilitation, visual assessment, and development modeling and computer graphics"[13]. Table 10 below presents the key steps outlined within the National Assessment Framework process.

Table 10: National Assessment Framework Steps

STEP	FRAMEWORK DETAILS RELEVANT TO PROPOSAL
ONE: ASSESS THE LANDSCAPE VALUES	Establish the landscape values of the wind farm site and surrounding areas.
	Undertake a preliminary landscape assessment that will inform site selection/ pre feasibility through documenting the level of existing knowledge and identification of communities who hold value of the wind farm site. Tasks include: ▪ Desktop Review ▪ Seek information from local authority ▪ Identify potential community and stakeholder interests ▪ Site survey ▪ Preliminary assessment of landscape values
	Document the landscape values associated with the wind farm site and surrounding area, and to evaluate the significance of the values. Tasks include: ▪ Define the study area for assessment, including the zone of visual influence ▪ Landscape character analysis ▪ Natural and cultural values analysis ▪ Involve communities and stakeholders in identifying landscape values

[11] Australian Wind Energy Association and Australian Council of National Trusts, June 2007, *Wind Farms and Landscape Values, National Assessment Framework.*

[12] Preliminary research and findings can be viewed in the Australian Wind Energy Association and Australian Council of National Trusts, March 2005, *Wind Farms and Landscape Values: Stage One Final Report- Identifying Issues, Appendix B: Wind Farms and Landscape Values: Final Issues Paper, p1.*

[13] Australian Wind Energy Association and Australian Council of National Trusts, June 2007, *Wind Farms and Landscape Values, National Assessment Framework, p 4.*

STEP	FRAMEWORK DETAILS RELEVANT TO PROPOSAL
	▪ Document values and analyse significance
TWO: DESCRIBE AND MODEL THE WIND FARM IN THE LANDSCAPE	Provide reliable, objective data (including visual assessment) that can inform assessment of impacts in Step 3 and assist communities to understand the development and its potential impacts on landscape values. Tasks include: ▪ Describe the development ▪ Model the development ▪ Prepare a visual assessment report
THREE: ASSESS THE IMPACTS OF THE WINDFARM ON LANDSCAPE VALUES	Assess, in a rigorous and transparent manner, the likely impacts of the proposed wind farm on the identified landscape values. Tasks include: ▪ Seek community input to potential impacts ▪ Identify and describe impacts ▪ Identify potential cumulative impacts ▪ Identify other relevant factors ▪ Evaluate impacts
FOUR: RESPOND TO IMPACTS	Develop and test measures to respond to the identified negative impacts of the wind farm on landscape values. Tasks include: ▪ Changes to location or sitting of the wind farm or ancillary infrastructure ▪ Layout and design considerations ▪ Minor changes and mitigation measures ▪ Recommend changes to the development

4.2.6 Draft NSW Wind Energy Environmental Impact Assessment Guidelines 2002

The NSW Wind Energy Draft EIA Guidelines outline key factors and issues to be 'considered when undertaking environmental assessments of wind farm projects'[14]. These guidelines were developed to guide and enhance the environmental assessment process of Wind Farm projects. Applicable to the proposed Kyoto Energy Park the following priorities, identified in Table 11 have been assessed against these guidelines and identified as key issues for assessment.

Table 11: Factors for Consideration when Undertaking a Wind Farm project EIA

FACTORS	ISSUES DISCUSSED IN THE GUIDELINES RELEVANT TO PROPOSAL
FACTORS FOR CONSIDERATION	Proposal regards the EP&A Act and incorporates biophysical, economic and social considerations inclusive of ecologically sustainable development (ESD) principles.
	Consideration of the proposal's strategic context. Identification of its need within its broader management context including; strategic plans and policies, environmental goals, land use and economic development.
	Evaluation of project options. Use of ESD principles in the assessment and development of the project and its operational practices, management, monitoring and reporting. Consideration of 'all feasible alternatives that could satisfy the objectives of the proposal'.

[14] Planning NSW, June 2002, *NSW Wind Energy Draft EIA Guidelines, p i.*

FACTORS	ISSUES DISCUSSED IN THE GUIDELINES RELEVANT TO PROPOSAL
	Identification of issues through consultation with the Director General of NSW Department of Planning, approval authorities, local councils and a preliminary assessment. 'Issues should be prioritised according to their importance in the decision-making process'.
	Identification and prediction of the project's potential impacts, including the identification of management and mitigation strategies and their effectiveness.
	Demonstrated commitment to ongoing mitigation and management tools and strategies that promote ecologically sustainability throughout the project's construction and operation and ensure it meets statutory obligations. Development of an environmental management plan which ensures the commitments made in the EIS are implemented.
	Address the Assessment checklist; presentation, quality control, factors to consider, reasonableness and adequacy.
CONSULTATION	Consultation should be appropriate for the level of impacts and include three aspects; provide information, gain input and seek resolution of these issues. It should occur throughout the duration of the project and use methods applicable to the type and scale of the development.
	Consult with relevant Government Authorities and local councils to identify key issues related to design, location, anticipated impacts and operational considerations.
	Consult with the community likely to be affected by the development, including land owners, neighbours, regional organisations and anyone who provides representation to those with a regional, state, national or global interest. Development of a community consultation program that is applied throughout both the pre-approval and post-approval phases.
SITE SELECTION PROCEDURES	Conduction of a rigorous site selection process which includes a preliminary site evaluation and ensures the site is fundamentally suitable for a wind energy proposal.
	Site selection should consider a range of factors including operational requirements, infrastructure, community, noise, landscape, visual, flora and fauna, heritage, geological, soil and cumulative issues.
EIS REQUIREMENTS	The specific requirements of an EIS are prescribed in Schedule 2 of the EP&A Regulation. It should include an Executive Summary, the Proposal, the Location, Identification and Prioritisation of Issues, Environmental Issues, Compilation of Mitigation Measures and Justification for the Proposal.

4.2.7 The National Greenhouse Strategy

The National Greenhouse Strategy identifies actions for implementation by government, organisations and community stakeholders with the aims of limiting greenhouse gas emissions, foster a knowledge and understanding of greenhouse issues, and to lay the foundations for adaption to climate change.

Table 12: Incentives set by the National Greenhouse Strategy

PRIORITY	ISSUES DISCUSSED IN PLAN THAT ARE RELEVANT TO PROPOSAL
DIRECT SUPPORT FOR THE INDUSTRY	*Renewable Energy Equity Fund* (REEF) - to facilitate the commercialisation and application of renewable energy technologies, Government funding will be provided through licenses to a REEF fund manager on a competitive basis and invested along with private sector funding on a 2:1 basis consistent with the existing Innovation Investment Fund arrangements.
	Renewable Energy Commercialisation Program - this will provide support for, and promotion of, strategically important renewable energy initiatives that have strong commercial potential. This program incorporates the former Renewable Energy Industry Program.
	Renewable Energy Showcase - leading edge 'showcase' projects will be selected via competitive tender for seed funding and/or promotion. These could include projects which are becoming close to commercial.
	Renewable Energy Technology Internet Site - a sophisticated and up-to-date Internet site on renewable technologies will be developed to provide information on technologies, examples of their application and available government assistance.

5 Demographic Profile

5.1 BRIEF HISTORY OF SCONE

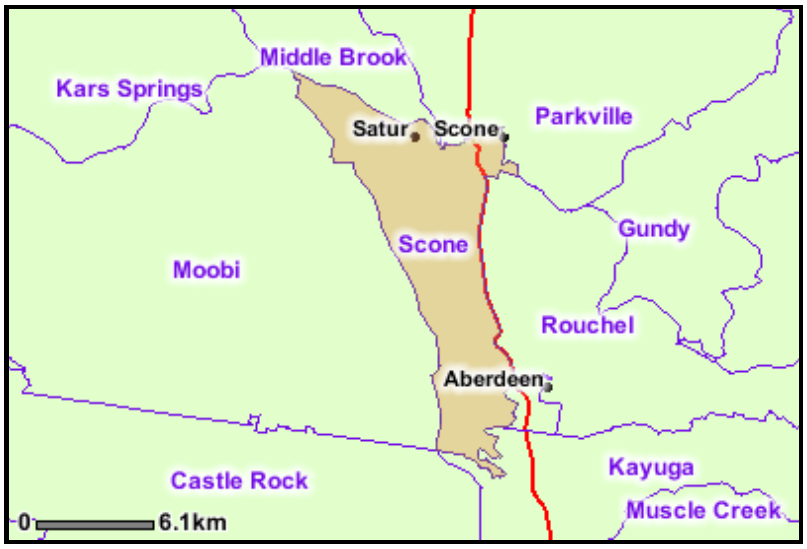
Scone is situated on the traditional lands of the Indigenous Wanaruah people. It was first settled by Europeans in 1825 who established successful agricultural productions. Scone's history of land-based production and activities now form the foundations of its modern economy. Scone's economy is predominantly based on its equine and agricultural industries, and also a resultant retail sector. Scone's extensive history with horses and its presently strong equine industry; including studs, research, festivals and competitions, has led it to become known as the "Horse Capital of Australia"[15].

Scone falls within the Upper Hunter Shire Council, which was formed in 2004 when the shires of Scone, Merriwa and Murrurundi were amalgamated.

5.2 PREAMBLE: SCONE AND THE UPPER HUNTER LGA

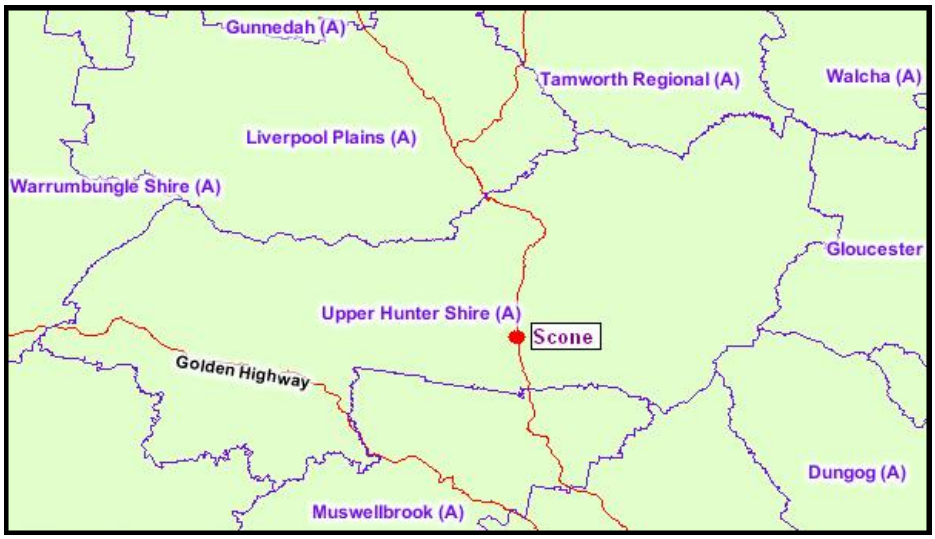
This demographic community profile centres on the Scone (as defined in the State Suburb Hierarchy, coloured brown in Figure 6). Comparisons will be drawn between Scone, Upper Hunter LGA (shown in Figure 7) and the NSW state as a whole. All data, unless otherwise stated is drawn from the 2006 Australian Bureau of Statistics Australian Census, in particular, from data reported in the 2006 Basic Community Profiles which contain 45 tables covering a wide range of measures.

Figure 6: Scone "State Suburb" (Source ABS Census Map)



[15] www.upperhuntertourism.com.au

Figure 7: Upper Hunter Shire and Surrounding LGAs

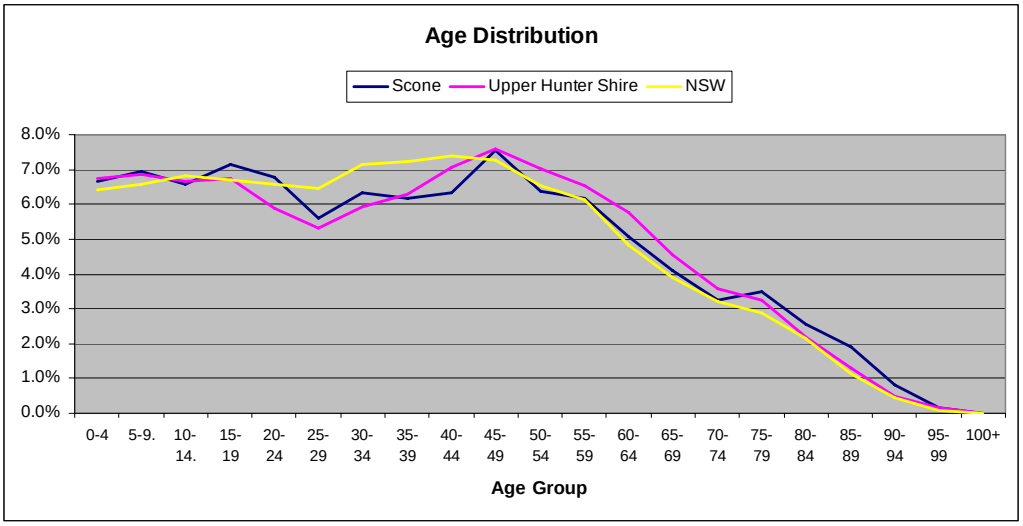


5.3 GENERAL COMMUNITY PROFILE

5.3.1 Age Profile

Figure 8 shows the proportion of each of the subject populations within the various age brackets. The lines representing each population show a roughly similar shape throughout the age spectrum. However, a number of deviations are evident, and reveal interesting characteristics of the Scone and Upper Hunter Shire populations. The most notable departure from the NSW profile occurs in the 20-49year age bracket, where the Scone and Upper Hunter Shire exhibits a smaller proportion. These brackets cover a considerable proportion of the prime working years. Corresponding to this smaller proportion of working age population, Scone and Upper Hunter Shire have a higher proportion of residents in the 55+ age brackets. Scone, in particular, exhibits a strong representation in the 75+ age brackets.

Figure 8: Age profiles



5.3.2 Cultural Diversity and Indigenous Residents

Unsurprisingly, the Scone and Upper Hunter profiles reveal less cultural diversity, in terms of residents born overseas, than the broader NSW population. The most common countries of overseas birth for Scone and Upper Hunter residents were the United Kingdom and New Zealand.

Table 13 shows the counts of individuals identifying as Aboriginal and Torres Strait Islander, or both, in the Census. Both scone and the Upper Hunter Shire had a higher proportion of indigenous residents than the state average, at 2.9% and 3.1%, respectively.

Table 13: Indigenous Residents

Indigenous persons:	Scone	Upper Hunter Shire	NSW
Aboriginal	140	365	130,787
Torres Strait Islander	5	12	4,771
Both Aboriginal and Torres Strait Islander	4	24	2,949
Total	*149*	*401*	*138,507*
Total persons	5,080	12,975	6,549,178
Indigenous %	2.9%	3.1%	2.1%

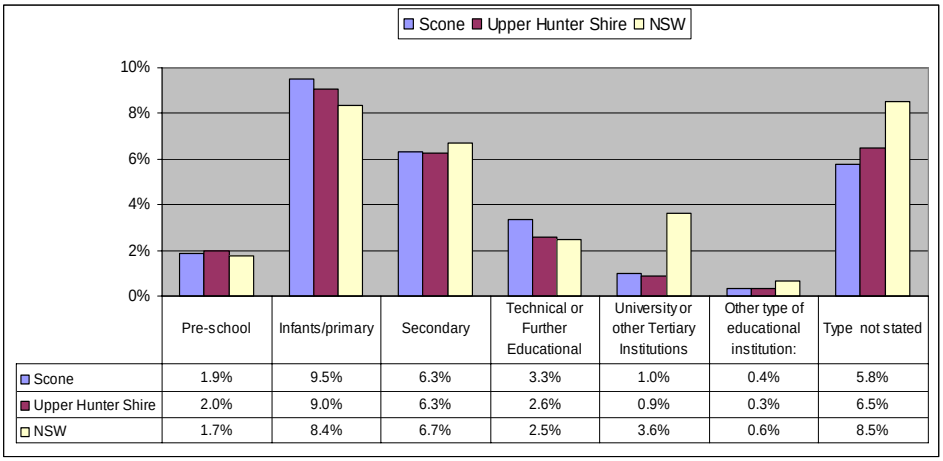
5.3.3 Educational Attendance

Figure 9 shows the proportion of the subject populations attending the different types of educational institution.

A slightly higher proportion of Scone and Upper Hunter residents attending primary school are a product of the age profile, shown in Figure 7, which shows a higher proportion of 5-9 year olds than broader NSW. However, the lower proportion of Scone and Upper Hunter residents attending high school cannot be explained by reference to the age profile. In fact, Scone shows a much stronger representation of 15-19 year old than NSW. This is more likely to be explained by a lower year 11 and 12 retention rate. The strong participation in Technical and Further Education is evidence of this.

Attendance at university or other tertiary institutions is quite low across Scone and the Upper Hunter. This is unsurprising given the geographical remove from physical university facilities and the structure of the labour market (which will be analysed in subsequent sections).

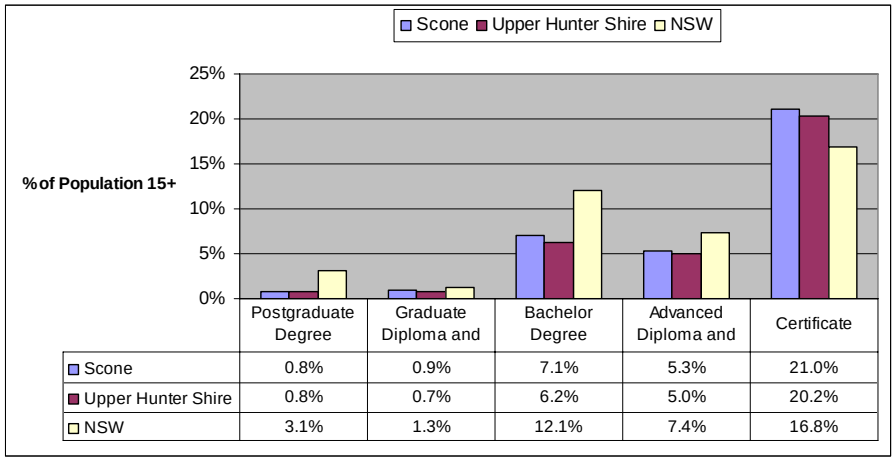
Figure 9: Educational Attendance



	Pre-school	Infants/primary	Secondary	Technical or Further Educational	University or other Tertiary Institutions	Other type of educational institution:	Type not stated
Scone	1.9%	9.5%	6.3%	3.3%	1.0%	0.4%	5.8%
Upper Hunter Shire	2.0%	9.0%	6.3%	2.6%	0.9%	0.3%	6.5%
NSW	1.7%	8.4%	6.7%	2.5%	3.6%	0.6%	8.5%

5.3.4 Educational Attainment

Figure 10: Educational Attainment



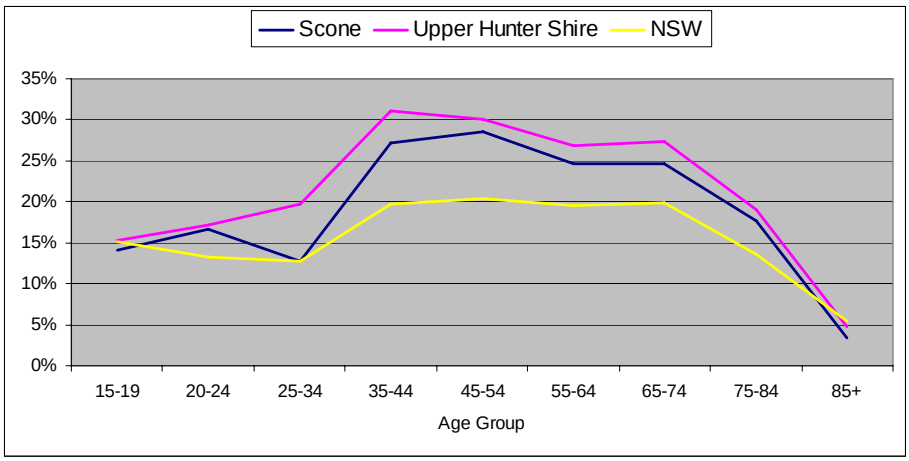
	Postgraduate Degree	Graduate Diploma and	Bachelor Degree	Advanced Diploma and	Certificate
Scone	0.8%	0.9%	7.1%	5.3%	21.0%
Upper Hunter Shire	0.8%	0.7%	6.2%	5.0%	20.2%
NSW	3.1%	1.3%	12.1%	7.4%	16.8%

5.3.5 Voluntary Work for an Organisation or Group

The 2006 Census was the first Australian Census to include a question on unpaid work, including caring for children or those with a disability, unpaid domestic work and voluntary work.

Rates of voluntary work for an organisation or group, by age, are displayed in Figure 11. Clearly, the Upper Hunter and Scone populations have a higher propensity to be involved in voluntary work than the broader NSW population across almost all age groups. All populations showed a peak in the volunteering rate across the 35-74 age brackets, while the rate trailed away for the brackets 75 and onwards. Interestingly, the rate of young people (15-34) volunteering was lower than the middle adult bands.

Figure 11: Volunteering Rates, By Age



5.3.6 Household Structures

Figure 12: Household Structures

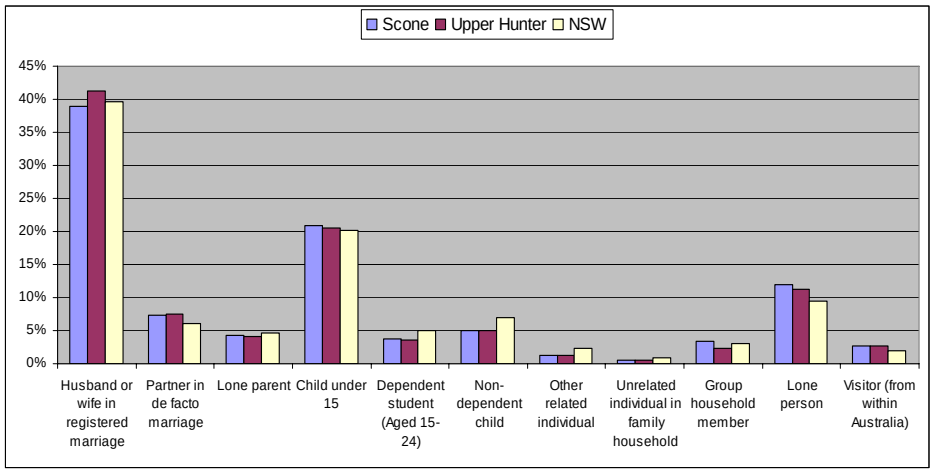
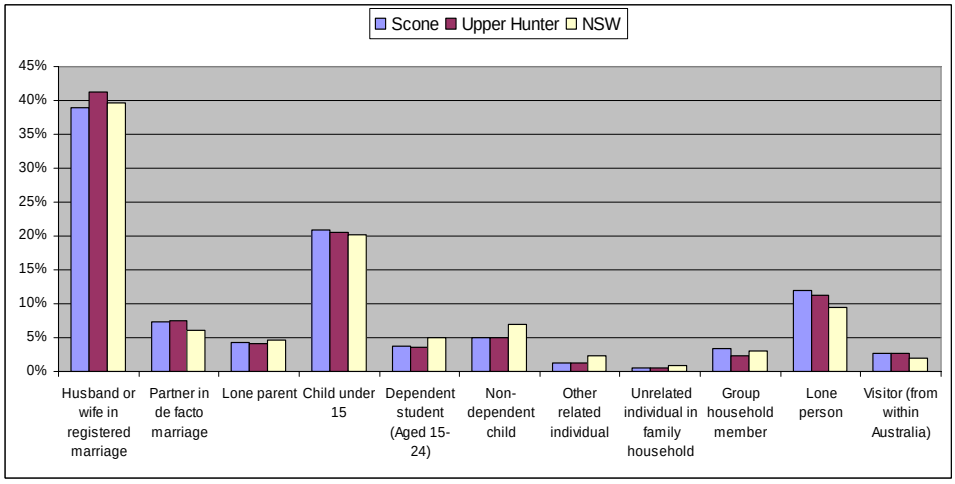


Figure 12 outlines the breakdown of residents by their status within the household. The proportions are quite similar across each of the study populations, showing little variation for most relationship statuses. Of note is the higher proportion of lone person households in Scone and Upper Hunter Shire. This most likely corresponds with the higher proportion of older residents in these areas. Scone and Upper Hunter Shire exhibit a lower proportion of dependant students (15-24). This is most likely the result of the lower than average university attendance by this cohort. Another influencing factor may be the relative affordability of housing in the Upper Hunter, meaning there may be less financial imperative for young people in these age groups to remain with their parents.

Figure 13: Relationship within Household

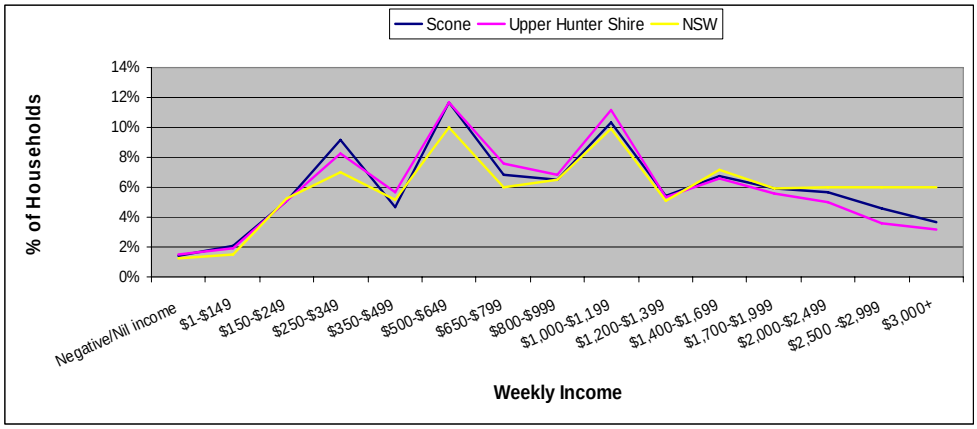


5.3.7 Household Income

Figure 14 shows the proportion of households earning across each of the weekly income bands. The populations show a broadly similar distribution of household incomes across the earnings spectrum. However, a number of slight variations are evident. There was a notably higher proportion of Scone and Upper Hunter households earning in some of the lower brackets, notably $259-$349 and $500-$649 per week. This is offset by a lower

proportion of households in these areas earning in the higher income bands, or $1700+ per week. This is unsurprising given that the Upper Hunter economy, generally, would not have the same proportion of highly paid jobs as metropolitan areas with deeper labour markets. This is not to say, however, that there are no high paying jobs in the Upper Hunter. The mining industry and equine industry would be examples of industries providing a number of high paying jobs.

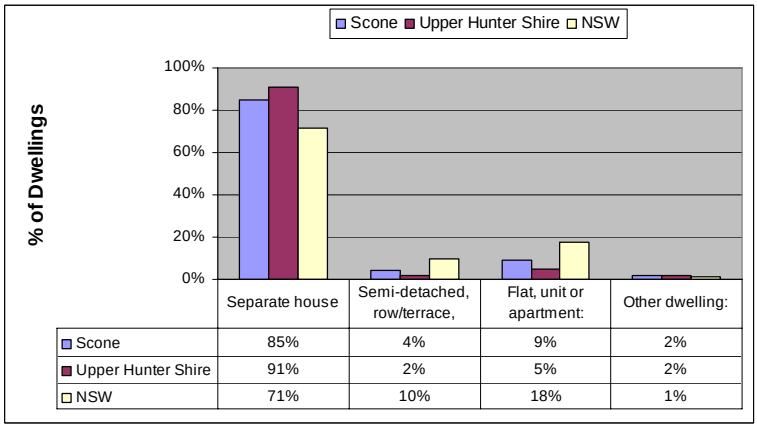
Figure 14: Weekly Household Income



5.3.8 Dwelling Structures

Separate houses remain by far the most popular dwelling structure across NSW. This is even more so the case across Upper Hunter Shire and Scone, where over 80% of dwellings are separate houses. Scone does, however, display more housing variety than across the Upper Hunter Shire, with approximately 13% of dwellings being semi detached/row/terrace house or units. Scone and the Upper Hunter also have a slightly higher proportion of "other dwellings", which include caravans, cabins and (though presumably not in the Upper Hunter) houseboats.

Figure 15: Dwelling Structures



	Separate house	Semi-detached, row/terrace,	Flat, unit or apartment:	Other dwelling:
Scone	85%	4%	9%	2%
Upper Hunter Shire	91%	2%	5%	2%
NSW	71%	10%	18%	1%

5.3.9 Labour Force Summary

The second release 2006 Census data provides extensive data relating to the labour force of study populations including basic labour force performance, industry of employment and occupation of employment.

The 2006 Census data for NSW captures the dramatic improvements which have occurred across many areas of the labour market over the previous 6 years. The basic labour force characteristics are shown in Table 12, below. In 2006, across NSW, the unemployment rate had fallen to 5.9%, which is down from 7.2% as at the 2001 Census.

Direct comparisons from 2001-2006 for the other populations is difficult, due to the fact that community profiles were not compiled for "Scone State Suburb" and "Upper Hunter LGA" for the 2001 Census. However, 2001 unemployment figures for each of the LGAs that now make up the Upper Hunter shire were all higher than the 2006 Upper Hunter unemployment figure of 4.5%. These were: Scone LGA: 6.6%, Murrurundi LGA: 7.5% and Merriwa LGA: 7.5%.

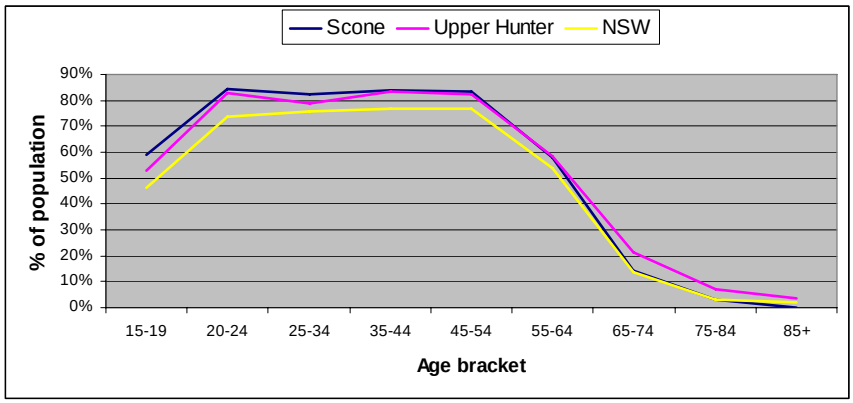
Table 14 also shows the labour force participation rate across the subject populations. Both Scone and Upper Hunter Shire enjoy a higher labour force participation rate than across NSW.

Table 14: Labour Force Characteristics

	Scone	Upper Hunter Shire	NSW
Persons aged 15 years and over	4,049	10,343	5,250,259
Labour force status:			
Employed, worked full-time	1,608	4,129	1,879,628
Employed, worked part-time	662	1,711	842,715
Employed, away from work	145	358	187,104
Unemployed, looking for work	104	290	183,157
Total labour force	*2,519*	*6,488*	*3,092,604*
Not in the labour force	1,354	3,358	1,801,010
% Unemployment	4.1%	4.5%	5.9%
% Labour force participation	62.2	62.7	58.9

Figure 16 shows the rates of workforce participation across age brackets. Interestingly, the Upper Hunter participation rate is higher, consistently, across the entire age spectrum. This is almost the case for the Scone profile, although the declining workforce participation in the older age brackets closely mirrors NSW. The propensity for higher workforce participation by young people in Scone and Upper Hunter Shire is associated with the areas' lower university participation rates and lower senior high school retention rates. The propensity for higher workforce participation rates by older people in the Upper Hunter Shire is most probably related to the prevalence of agriculture as an industry of employment across the Upper Hunter.

Figure 16: Workforce Participation, By Age



5.3.10 Industry of Employment

Figure 17 shows selected industries making up the employment for male Scone residents. The dominant industries represented are Mining, manufacturing and construction. These industries strongly suggest the "blue-collar" makeup of Scone's economy. Agriculture is also strongly represented, particularly in the older age brackets. Retail jobs, presumably casualised, are the predominant feature of the labour market for males aged 15-19 in scone.

Figure 17: Scone: Selected Male Industry of Employment

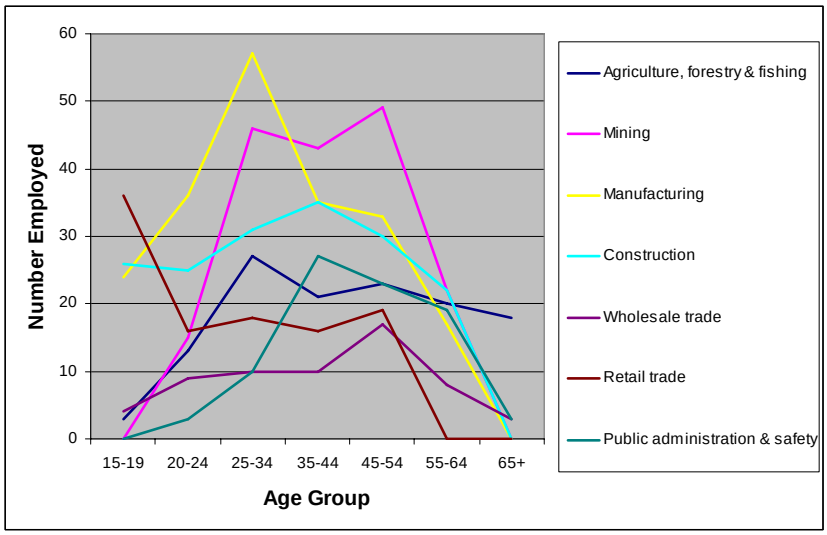
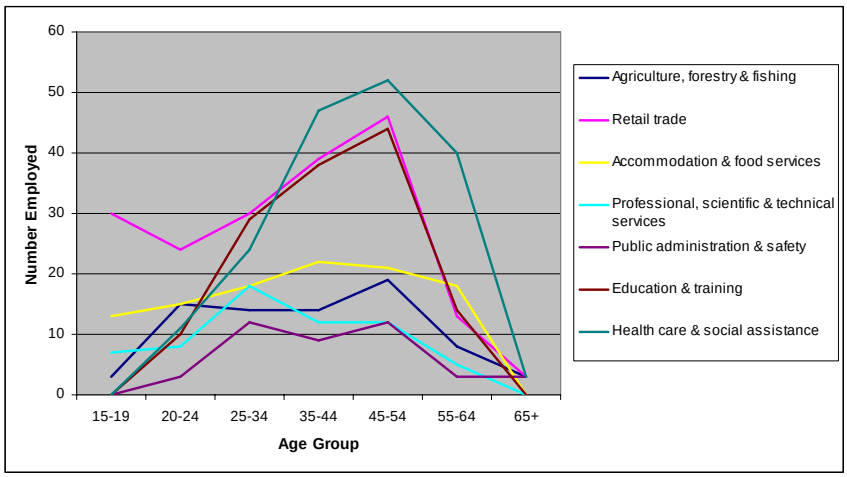


Figure 18 shows selected industries of employment of female Scone workers. A different set of dominant industries are displayed in the female profile. The three clearly dominant industries are "health care & social assistance", retail trade and "education and training". Again, retail industry jobs are particularly prevalent for women in the younger age brackets.

Figure 18: Scone: Selected Female Industry of Employment



5.3.11 Occupation

Figure 19 displays the occupational breakdown of male employment in Scone. "Technicians and trade workers" is the most strongly represented occupation, with a considerable proportion of the young male workforce involved in this occupation. "Machinery operators and drivers" is another common occupation among male Scone workers.

Figure 19: Scone: Selected Male Occupation of Employment

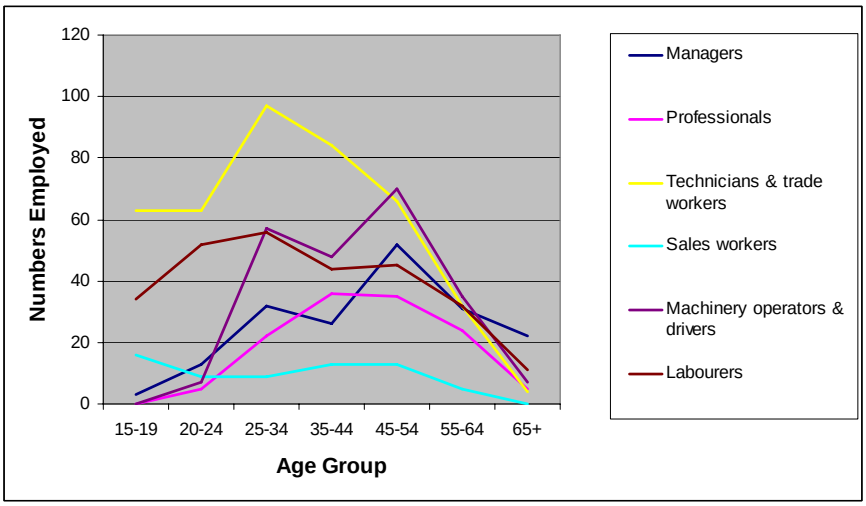
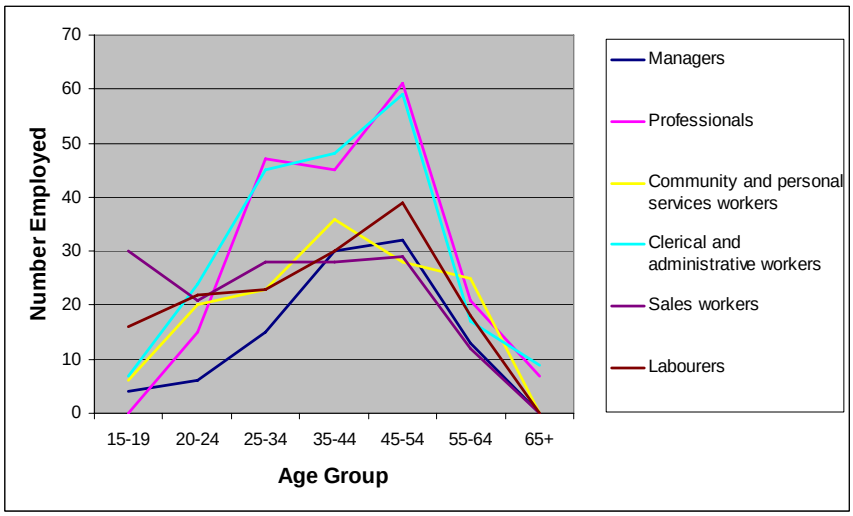


Figure 20 shows the occupational breakdown of female workers from Scone. Two occupations emerge as dominant areas of employment for Scone females. These are the professional and "clerical and administration" occupations. The high proportion of professional females most probably correlates to the high proportion of females employed across the "healthcare and social assistance" and "education and training" industries; that is, nurses and teachers.

Figure 20: Scone: Selected Female Occupation of Employment



6 Economic Overview

6.1 ECONOMIC CONTEXT

The preceding section examined the demographic profile of Scone and the Upper Hunter, with reference to the NSW average. The profile reveals a strong labour market, with low unemployment and high workforce participation.

The male workforce, in particular, seems well placed to provide input into various aspects associated with the project. The dominant industries of employment are manufacturing and construction. The dominant occupations for Scone males are "technical and trade", "machinery drivers and operators" and labourers. Input across each of these industries and occupations will be central to the establishment of the Kyoto Energy Park. However, the strength of the local labour market may indicate potential challenges in securing workers for the project. Scone's unemployment rate of 4.1% is approaching what many commentators would consider "full employment", which, combined with a high participation rate of 62.2% may indicate a labour market operating at, or near, capacity.

Whilst significant investment in the local economy will be made during sourcing and construction, some components of the capital investment in the project will be outlaid to firms outside of the Upper Hunter Shire. The exact breakdown between local and wider expenditure is hard to quantitatively determine. However, it is fair to say that both the broader Australian economy and the local Scone economy will benefit from the considerable investment in the Kyoto Energy Project. Local media articles on the Hallett Wind Farm in South Australia, which is nearing completion, report benefits to the local economy including the provision of jobs and investment in the local economy.[16]

6.2 CONSTRUCTION AND INSTALLATION PHASE DIRECT IMPACT

The manufacturing and construction phase represents the largest economic component of the project, with ongoing jobs and expenditure being modest in comparison to these initial stages. Table 15 contains the estimated source of components for the project, as provided by Pamada.

[16] "Wind Power Put Hallett on Map", Northern Argus 18/06/2008. (http://clare.yourguide.com.au/news/local/news/general/wind-power-puts-hallett-on-map/791833.aspx) Viewed 09/09/2008

Table 15: Estimated Source of Components for Kyoto Energy Park

KYOTO ENERGY PARK SCONE (Main components)		
Component	**No**	**Comment**
Solar Photovoltaic (PV) Plant	(3-10MW)	
a. Solar Modules		Fabricated in Overseas/Australila
b. Solar Frames (4 options)		
- Fixed		Fabricated in Overseas/Australila
- Single axis		Fabricated in Overseas/Australila
- Dual Axis		Fabricated overseas
- CSP		Fabricated in Australila
Closed-loopMini Hydro Plant	(1MW)	
a. 200kW Mini-hydro Synchronous Generators	x5	Suppliers within Australia
b. Construction works	Item	Contractor sourced within Australia
Wind Turbine Generators *	(89-126MW)	
a. Foundations	42	Contractor sourced within Australia
b. Nacelle	42	Manufactured overseas
c. Tower sections	42x5	Manufactured in Australia
d. Rotor Assembly (Hub + blades + nose cones)	42	Fabricated overseas
e. Wind Turbine Maintenance	Item	Contractor sourced within Australia
Electrical Works		
*a. Site Substation**	x1	Contractor sourced within Australia
*b. Electrical Reticulation(Internal)**	21km	Contractor sourced within Australia
*b. Electrical Reticulation(External)***	18-42km	Contractor sourced within Australia
c. Electrical Connection to grid	x1	Contractor sourced within Australia
Managers Residence	x1	Contractor sourced within Australia
Maintenance Shed	x1	Contractor sourced within Australia
Visitor's and Education Centre	x1	Contractor sourced within Australia
* **Underground Internal reticulation includes Mountain and Middlebrook Stations**		
** **4 options for external overhead reticulation**		

This balance of locally and overseas sourced components is particularly pertinent to such a project as Kyoto Energy Park, as significant components of the wind turbines are manufactured overseas. However, with the increasing popularity of wind generated power, there is greater potential that components may be manufactured in Australia. This is also the case with components of the Solar photovoltaic plant and Closed -loop hydro.

Costs of the project will include logistics, construction and commissioning as well as manufacture. So even though some components are likely to be sourced overseas, a considerable amount will be expended locally in their transport, assembly and commissioning.

MacGill, Watt and Passey[17] cite an approximate breakdown of costs for wind projects as 50% for turbines, 15% for towers and 35% for installation and project management.

6.2.1 Wind Farm Employment

The investment of considerable funds on the construction and establishment of the Kyoto Energy Park will be responsible for the creation of employment across a range of industries. This will include, amongst others: construction, transport and manufacturing.

Estimating a direct employment effect from the construction phase of wind farming is difficult due to the complexity of the technology and the geographical dispersion of involved firms. Table 16 is reproduced from a report by Dr. Robert Passey[18], and shows estimates of financial and employment outcomes as a result of wind projects.

[17] "Jobs and Investment Potential of Renewable Energy: Australian Case Studies, 2002.
[18] Driving Investment, Generating Jobs: Wind Energy as a Powerhouse for Rural and Regional Development in Australia.

Table 16: Financial and Employment Outcomes

Factor	New typical 20 MW project	2002 indicator for scenarios
Direct Capital investment	A$36-40m	$1.8m /MW
Australian content (by value)	40-50%	50%
Australian capital investment	$16-18m	$0.9m /MW
Total direct jobyears for manufacture + installation	150-200	7.5 jobyears /MW
Total direct Australian jobyears for manufacture + installation	70-90	3.7 job year /MW (i.e. 50% Aust. Content)
Ongoing Australian O&M jobs	2-3	0.12 jobs /MW
Ongoing O&M expenditure	$360-400k /year	$18k /MW per year

The Kyoto Energy Park is proposed to include up to 42 wind turbines creating in the range of 89MW to 126MW. The table below outlines the potential direct jobs created in the manufacture and installation of wind turbines as part of Kyoto Energy Park. Table 17 utilises the figures of 7.5 total job-years per MW and 3.7 Australian job-years per MW for the manufacture and installation stages.

Table 17: Wind Turbine Construction and Installation: Direct Job years

	Total direct job-years (7.5 per MW)	Total direct Australian Job-years (3.7 per MW[19])
89MW	668	329
126MW	945	466

6.2.2 Closed-Loop Hydro

The construction of the closed loop hydro plant is expected to represent an investment of approximately 2-3 million dollars. Construction and installation would be undertaken by Contractors within Australia including works for concrete tanks, pipes and valves, and low voltage electrical and control equipment. The range of technologies associated with plant and the amount of money invested would mean that a positive impact on employment would be expected. Technologies utilised in the establishment of a closed-loop hydro plant would include water pumping systems and turbines to capture the energy from falling water. Mini-hydro turbines/reversible pumps for the plant would be sourced from suppliers within Australia.

6.2.3 Construction of On-site buildings

The establishment phase of the project would involve the establishment of a number of on-site buildings. Initial estimates from Pamada reveal that a manager's residence will be built with an approximate cost of $0.5M. A Maintenance shed will also be constructed at an estimated cost of $0.4M, and a Visitors and Education Centre at $0.6M.

Standard ABS multipliers for the construction industry outline that the initial effect of $1M in expenditure on construction typically yields 9 direct jobs. Accordingly, an expenditure of $1.5M associated with the manager's residence and storage sheds may be expected to yield 13-14 direct construction jobs.

[19] Based on the assumption of 50% overseas capture of wind farm initial expenditure. As previously mentioned, the Kyoto project may be able to achieve a higher domestic proportion of expenditure, and hence would capture a greater proportion of employment. However, for convenience, this 50% split will be used throughout this section as an estimated breakdown of national/international capture.

Due to the relative geographic isolation of the site, and the strong profile of construction within the local economy, it would be expected that most of these jobs would employ locals.

6.3 OPERATIONAL PHASE DIRECT IMPACT

It is beyond the scope of this report to predict the economic flows associated with selling of power onto the power grid. Issues such as a final expected MW output for the park, the wholesale price of energy, uncertainty surrounding the ownership structure of the energy industry and lack of clarity regarding green energy "targets" means such an analysis would be quite complex and reliant upon significant assumptions.

The ongoing economic activity analysed below, associated with the operation and maintenance of the energy park will be minor in comparison to the construction and commissioning aspects of the project.

In Table 16, above, an estimated 0.12 job years per MW are expended on ongoing operation and maintenance ("O&M"). Using this figure as a guide, Table 18 projects a range of likely labour hours to be expended on servicing activities for the wind component of Kyoto Energy Park, dependant on eventual output.

Table 18: Estimated Jobs- Operation and Maintenance

		FTE Positions[20]
Megawatts	89	10.7
	126	15.1

While Table 18 shows between 10.7 and 15.1 fulltime-equivalent positions involved in operation and maintenance of the wind component of the park, some of these would generally not be fulltime permanent positions. During some years scheduled service and maintenance needs might be quite high, while during other years they could be much lower.

While the wind component of the park represents the great bulk of energy production and, resultantly, ongoing employment, other components of the Kyoto energy Park will contribute toward ongoing employment. While an exact number of FTE jobs are difficult to quantify, the closed loop hydro plant and solar PV plant will require operation and ongoing maintenance for the life of the plant. This maintenance will be minimal by the nature of the components and has been factored into the overall maintenance of the Park. The solar and hydro components will also be controlled within the existing control facilities of the Park and have the ability to be monitored offsite.

Additionally, there would be employment associated with the manager's residence. These would include the manager, any support/office staff and grounds keeping staff. The operation of the on-site educational facility would also employ a small number of staff.

6.4 MULTIPLIER ECONOMIC IMPACTS

Multiplier impacts refer to the indirect, or flow-on, benefits of economic activity. These are generally divided into production effects, which include the initial effect of the expenditure, plus the activity associated with the supply of goods and services to the initial project. Consumption effects account for the induced production as a result of participants in the production rounds spending income.

While detailed input/output tables are formulated for major industries such as construction, the small size, complexity and emerging nature of the renewable energy market means that such figures are unavailable.

[20] Assumes a 52 week year and a 37.5 hour work week.

Some work has been undertaken internationally examining the indirect economic effects of expenditure on wind energy. Such work is based on a range of methodologies and assumptions and arrives at differing estimated indirect impacts.

Passey's 2003 report[21] cites estimated indirect employment impacts of between "less than three"[22] and 4.1[23] extra job years per direct job year.

Table 19 takes the initial estimates of direct jobs (from Table 17), and estimates Australian indirect jobs associated with these based on the different potential multiplier factors of 2.9 and 4.1 as outlined above.

Table 19: Estimated direct and indirect employment

	Total direct job-years (7.5 per MW)	Total direct Australian Job-years (3.7 per MW[24])	Additional indirect Australian Job-years (2.9 multiplier)	Additional indirect Australian Job-years (4.1 multiplier)
89MW	668	329	954	1349
126MW	945	466	1.351	1,911

These multipliers are very broad and give no indication as to the geographic breakdown of indirect employment. The dispersed nature of the supply chain for wind farm activity will mean that a considerable proportion of indirect employment will be captured by firms beyond the immediate area. However some components of the initial activity, such as construction, are likely to be sourced locally. The indirect employment flowing from these locally based industries is much more likely to be captured locally, providing increased economic activity for Scone and the Upper Hunter Shire.

The multipliers for construction activity associated with the construction of buildings, including the manager's residence, maintenance shed and Visitors and Education Centre, are more easily quantified using standard ABS multipliers for the construction industry. Table 20 outlines the multiplier effects per $1M of construction expenditure, and then applies these figures to the estimated $1.5M construction activity associated with the onsite manager's residence and storage sheds.

Table 20: Multiplier Effects: on site buildings[25]

	Initial effects (1)	First round effects (2)	Industrial support effects (3)	Production induced effects (4=2+3)	Consumption induced effects (5)	Total Multiplier (6=1+4+5)
Output ($M)	1	0.466	0.438	0.904	0.962	2.866
Employment (no.)	9	3	4	7	21	37
Output ($M)	$1.50	$0.70	$0.66	$1.36	$1.44	$ 4.30
Employment (no.)	14	5	6	11	32	57

[21] Driving Investment, Generating Jobs: Wind Energy as a Powerhouse for Rural and Regional Development in Australia.
[22] European Wind Energy Association. (Passey's workings suggest a figure of 2.9)
[23] Sinclair Knight Merz, 2001.
[24] Based on the assumption of 50% overseas capture of wind farm initial expenditure. As previously mentioned, the Kyoto project may be able to achieve a higher domestic proportion of expenditure, and hence would capture a greater proportion of employment. However, for convenience, this 50% split will be used throughout this section as an estimated breakdown of national/international capture.
[25] Table Source: ABS Yearbook Australia, 2002. (Data is drawn from Australian National Accounts: Input-Output tables - 1996-97 (5209.0)).

Again, some of the multiplier effects will be captured locally, while others will be captured further afield.

6.5 OTHER ECONOMIC IMPACTS

Wind parks in Australia are reported to have received large numbers of visitors. Passey (2003) reports that surveys show 100,000 people per annum are being attracted to visit wind farms in Australia. The Kyoto Energy Park is proposed to include an educational component, which will allow visitors to view the turbines, closed loop hydro plant and potential future components of the park. The proposed educational component will also potentially take advantage of an elevated location, in order to provide views down the Hunter Valley to open cut coal mines, juxtaposing the renewable energy source with the traditional source of power, the coal industry.

The addition of such a tourism component would provide further economic benefit to the local area. It would provide employment on the site and additional income from visitors. Additionally, other businesses in the area will benefit; especially those equipped to supply the tourist trade such as accommodation and food providers. Other tourism drawcards for the Upper Hunter (such as the equine industry) may also benefit from the increased profile that Scone and the Upper Hunter will receive as a source of renewable energy.

The presence of the Kyoto Energy Park will also provide an additional source of revenue, in terms of leases, to the land holders where the park will be located. The expenditure of this income by the land owners in the local area will further benefit the economy.

6.6 INTERNATIONAL RESEARCH

This section examines international research that has been conducted on existing wind farm developments. The aim is to identify the potential impacts of the wind farm component focusing on surrounding land values and uses.

There is a general impression that the establishment of a wind farm has detrimental economic effects on nearby property values. However there is insufficient research to support this claim. Numerous impact studies have been conducted internationally, the great majority of which have failed to identify a link between wind farms and property values. Overall research has been limited by small samples, insufficient details and inconsistent results. International research to date is unable to provide a clear indication as to what will occur at a potential site, such as the Kyoto Energy Park, however it does assist in providing a better understanding of the potential outcomes.

A study conducted in conjunction with the *Renewable Energy Policy Project (REPP)* in the United States found no evidence that property values decreased as a result of wind farms. In fact the *REPP's* report claimed that;

> "If property values had been harmed by being within the view-shed of major wind developments, then we expected that to be shown in a majority of the projects analysed. Instead, to the contrary, we found that for the great majority of projects the property values actually rose more quickly in the view shed than they did in the comparable community. Moreover, values increased faster in the view shed after the projects came on-line than they did before."
>
> *(Sterzinger, 2003, p.2)*

Similarly a Scottish case study came to this conclusion. Once the wind farm was established in the town of Dunbar, property prices in the rural town continued to exceed that achieved across the wider region *(Parkhill, 2007).*

In contrast to these examples research has also claimed that wind farms have a negative impact upon property and land values. A study conducted by the *Royal Institution of Chartered Surveyors* found that there is more detrimental impacts upon residential than agricultural properties. The *RICS* survey stated that "60% of the sample

suggested that wind farms decrease the value of residential properties where the development is within view" *(Sims and Dent)*. The main factors cited as contributing to this negative impact upon property values are; visual impact, fear of blight (plant disease) and the proximity of a property to a wind farm. The *RICS* survey also suggested that this negative impact decreases after two years.

Overall there is no reliable consensus in international research that indicates wind turbines add a positive or negative value to property prices and agricultural land. However research has identified factors that may contribute to the impacts wind farms have on property value. The most frequently reported impacts are noise and visual aspects. It is suggested that these factors lead to economic impacts (such as decreases in property land values).

In addition *Johansson* and *Laike* argue that the perceived unity to the environment, aesthetics and personal attitude towards the effect of wind turbines upon landscape may have an impact. If a wind turbine blends into its environment such as in a built up area it will have less of an economic affect than if is dominating the landscape in a rural setting. In this regard public perception is an important factor. If a wind farm intervenes with the public's sense of place, character, distinctiveness and identity people may develop a negative perception of the wind farm that is shared collectively. *Devine-Wright* argues that research surrounding wind farm development fails to acknowledge the link between physical proximity, people's perceptions and land value. To elucidate, people's perceptions are interconnected with social norms and local public opinion, and as a result can lead to negative public sentiment regarding the presence of wind turbines, affecting local property values.

In summation there is insufficient international research to conclude that wind farms have any potential impacts on surrounding land values. It can be assumed, however, that variables such as distance from a wind turbine, its visibility and local public perception are relevant and need to be considered in a proposal.

7 Community Consultation

Diverse views, opinions and attitudes were expressed throughout the community consultation period. These were obtained through various consultation and communication methods including phone interviews with key community organisations, reviews of local media coverage, revision of Pamada's preliminary community consultations, and consultations with residents during a Community Information Day. The outcomes of these consultations follow;

7.1 MEDIA COVERAGE

Whilst the bulk of media attention addressing the proposed Kyoto Energy Park has appeared in the local paper, the Scone Advocate, there have also been several articles in the Newcastle Herald and Sydney Morning Herald, ABC radio interviews with industry experts and a brief mention on NBN news. It is anticipated that media coverage will increase as the project progresses, gaining increased momentum and public interest. To date, media coverage has presented mixed opinions about the Kyoto Energy Park proposal. This section evaluates media releases and considers dominant positions that are being discussed in the media forum.

Newspaper articles have predominately taken on a neutral position and played an informative role. Articles in the Newcastle Herald, the Sydney Moring Herald and the Scone Advocate have described the proposal in terms of location, size and its stage in the development process. Positive and negative impacts are outlined in some of the articles, however at the regional level (such as in the Newcastle and Sydney papers) there has been a greater focus on the potential of the Kyoto Energy Park in combating global warming, with it being described as an appropriate step in the move towards a more sustainable power industry;

> "Scone is being offered a great opportunity with the Kyoto Energy Park and we must welcome it with open arms. The energy park will be the first of its kind in Australia." (Jones and Taylor, the Herald, 26/07/07)

In this context, the media identifies Kyoto Energy Park as a positive environmental initiative for the region. In contrast to this broad outlook however, more localised and personal issues have been identified within the Scone Advocate. This local paper has delivered the most media coverage, the majority of which appearing in the editorial section. Many Scone residents are engaged in the debate and have developed strong arguments in support and opposition to the proposal.

Arguments in support of the proposal are commonly based on environmental issues such as combating global warming. There is growing concern within communities as to the possible implications of this discourse and an increasing desire to reduce carbon outputs and restructure power industries. As one resident describes;

> "The energy park is a wonderful opportunity for this area to be part of the movement leading Australia into a green clean world that survives rather than dies." (Horn, Scone Advocate, 17/05/07)

The Kyoto Energy Park proposal has been seen as an opportunity to set an example for other communities and promote a reputation as a green and clean town. It has also been recognised as a positive economic initiative;

> "The significant benefits to be gained include employment opportunities, increased tourism, and, most importantly, a positive reputation for our community." (Jones & Taylor, The Herald, 26/07/07)

Some residents are simply favouring exposure to renewable energy as opposed to alternative technologies such as coal, gas and nuclear;

> "Let us harness the sunlight and wind for power and electricity. A skyline dominated by wind turbines? Surely better than an overturned countryside churned and ravaged, devoid of life, disrupting our agriculture, thoroughbred horse breeding, dairy, winemaking and tourism industries and further jeopardising hundreds of millions of dollars of investment and thousands of jobs." (Clifton, Scone Advocate, 23/08/07)

Whilst support for the Kyoto Energy Park is evident within the community, some locals are not convinced on the issue. The editorial section of the Scone Advocate has received a similar number, if not more, letters in opposition to the development. The issues raised include destruction of aesthetics and serenity, noise, light flicker, necessity, efficiency and appropriateness. Residents have argued that current infrastructure cannot handle the increase in traffic expected during both construction and operation, with the arrival of tourists. Concerns have been raised about the location and assembly of high tension power lines and the possible resultant health impacts. Largely, community members have stated that they are in favour of renewable energy but do not support it at this particular location;

> "I am not anti green energy in any way but let's put these wind turbines in their place, away from residents and bushland (the Towari National Park). Why not erect them close to the already existing power stations and mines where the landscape has already been irreversibly destroyed" (Moschner, Scone Advocate, 30/08/07).

Community members are arguing that because of the location, specifically its proximity to residents, the issues known to be associated with wind turbines are magnified. These include visual impacts, noise and the potential for land depreciation. A large proportion of the opposition is from owners of adjoining properties who are uncertain as to the scale at which this development could impact them;

> "While the owner of Middlebrook station and Mountain Station will make significant annual income from erecting wind turbines, ALL of his neighbours, some of whom are struggling financially, will lose up to 20 per cent of their largest, and for some only, asset" (Cooper, Scone Advocate, 22/11/07)

Finally concerns have been raised as to how effective the wind farm industry is compared to other power generating industries;

> "If wind farms are expected to provide a genuine source of electricity there will need to be hundreds of turbines to generator enough power." (Save Our Scone, Scone Advocate, 22/11/07)

To date, media content has provided an array of views, articles and opinions, in support and opposition to Kyoto Energy Park. Opposition to the development is dominating the editorial section of the Scone Advocate, most of which is sourced from properties in close proximity to the proposed wind turbine sites. A large proportion of the media coverage is being generated by a group of opposed residents who have formed an organisation to fight the proposal. These residents are having a significant impact upon media coverage in the local area. Most of the concerns being identified relate to the direct neighbours, therefore making it unclear as to the general consensus and views of the wider community. In more recent coverage in the Scone Advocate the formation of a pro-renewable energy group has made statements supporting conservation and 'green' renewable energy development within the Scone and Upper Hunter LGA[26].

[26] Scone Advocate, 02/04/2008, New Group Supports Clean Energy in Scone.

7.2 PRELIMINARY CONSULTATIONS OVERVIEW

A Community Register was established by Pamada Pty Ltd to engage community members, business and organisational groups, key stakeholders, local residents and government departments. Preliminary consultations were conducted with these stakeholders by Pamada Pty Ltd staff from January 2007 through a series of letter-box mail-outs, face-to-face meetings and phone and email correspondence.

During the initial mail out, 222 letters were sent to land holders within the immediate area, introducing the project and encouraging residents to contact Pamada Pty Ltd with any issues or concerns they have. From this, only 7 phone calls were logged (4 of which were supporting the development, 1 which was against the development, and 2 which were neutral, with one of these simply introducing their construction business), 1 letter was received (which generally had a negative tone, however their main concern was over the location of power lines), and 7 meetings were conducted with residents. The main issues raised during these meetings include amenity (noise, visual, dust, landscape/turbine location, blade glint/flicker), location of power lines, land devaluation and exploration leases over Mountain Station for mining. These meetings were attended by Pamada Pty Ltd staff and the residents who requested these meetings. Further Community Information Flyers containing progress information and project announcements were sent via mail dated January 2007, July 2007 and January 2008. The response of merely 27 people[27] to the proposed development suggests that there is a minimal community concern for the project, even from those residents living within close vicinity and on adjoining properties. Preliminary consultations indicated that community opposition is minimal, with the majority of opposition coming from adjoining and/or near neighbours. However it should be noted that it was raised during these consultations (similar to the organisational and community consultations undertaken by Key Insights Pty Ltd, and some media coverage), that there is a lack of detailed and extensive information being made available and accessible to residents, especially those located outside of the immediate area (living within the Scone community and Upper Hunter LGA). Therefore, it is suggested that whilst current opposition to the proposed development is predominantly from a group of surrounding residents, greater community information and knowledge is required to ensure all community issues and concerns are scoped, mitigated and negated, allowing Kyoto Energy Park to benefit all community members and have an overall positive local and regional impact.

7.3 ORGANISATIONAL CONSULTATIONS

As part of community consultations, Key Insights' established a stakeholder register comprised of key interest groups in the Scone area (including community groups and forums, schools, government organisations and chambers of commerce). Of the twenty two interest groups identified, Key Insights were only able to obtain seven phone interviews with representatives from these organisations. The limited response was primarily due to a lack of interest in the project. Many of the groups that were contacted failed to return phone calls or simply did not want to participate in the interview.

An overview of phone consultations conducted with key community organisations about Kyoto Energy Park provides a brief insight into the community's current awareness, concerns and interests. However it should be noted that due to the limited number of respondents, these views are considered too partial. Upon conducting phone interviews, a lack of interest in the subject and knowledge of the development was evident.

The majority of people interviewed (6 out of 7), were aware of the proposal once given a brief description of its location. All of whom referred to the proposal as the "wind farm" as opposed to the Kyoto Energy Park. Community representatives anticipated more positive impacts than negative impacts. The main theme remained

[27] Pamada Pty Ltd notes that this figure is indicative of correspondence that was logged. Additional phone and written correspondence was made with stakeholders by Pamada staff.

around the environment, focusing on the benefits of renewable energy, green power and decreased pollution. Several interviewees made reference to the proposal being a better alternative to having a coal mine on site, and also the pollution that comes out of the Macquarie / Bayswater plant. The potential for greater employment during construction was also identified as a positive impact. On the other hand though, the most commonly recognised negative impact was noise. Issues such as appearance, aesthetics and inefficiency were also raised.

Each interviewee believed that clean renewable energy was a positive initiative for the region; however a few participants did not see Kyoto Energy Park as being beneficial to the local community. Participant's concerns included direct environmental impacts on residents and the inefficiency of wind turbines in producing an economically viable power supply. Those that saw the Kyoto Energy Park as a positive initiative for Scone argued that it would be a local revenue generator, providing local employment and reducing pollution. Others were unsure about the specific site and any possible implications, creating inability to make comment or judgement. The Country Women's Association representative suggested that the shared benefit for the region, as a result of clean energy, is worthwhile even though it is the Scone residents who will be directly impacted by the development more so.

Organisational consultations indicated that the community did not have enough access to relevant information. Responses were confused and informed primarily by media articles. Scone Landcare Incorporated indicated that they were happy with the flow of information, although identified the media as the primary source. Many questions were also raised by interviewees. Half of the interviewees stated that they had not been adequately informed on the proposal. To increase the flow of information interviewees requested any additional information, a summary of possible 'positives and negatives', and to be kept up to date with the progress of the application. Saint Mary's Primary School's representative was not confident that the community was being offered a balanced view about the proposal, stating that he/she wants information that will inform the public about the potential negative impacts, as well as the positive impacts, in an honest and straightforward way.

Interviews indicated that they would also like more information on project specific details, such as the size of wind turbines and their planned locations. It was suggested that this information could be provided in a regular newsletter to all residents. The Scone Chamber of Commerce and Industry's participant would like to see a delegation bus trip to a similar park, for interested community residents and stakeholders to personally 'see' how loud the turbines are, speak to other communities who already have wind farms and to gain a better understanding of what the potential impacts could be.

Overall this consultation uncovered mixed views about the proposed Kyoto Energy Park. The lack of responses indicated limited interest in the project; however, issues surrounding information accessibility and availability were addressed at the community information day.

7.4 COMMUNITY CONSULTATIONS

A Community Information day was held at Scone Equine Centre, on Saturday 16th February, 2008. The purpose of this Information Day was to give interested people in the Scone community an opportunity to access project information, speak with the proponents and expert consultants, understand where the project is up to in terms of seeking approvals, ask questions about the proposed development and comment on the proposal. These comments were recorded by Key Insights' personnel via individual qualitative comments and a standard feedback form which was given out to all attendees on arrival.

The qualitative response at the Community Information Day indicated a wide range of views from strong opposition to strong support. Those most strongly opposed to the project were more likely to be immediate neighbours who were feeling angry and stressed about the proposal. Some residents of the Scone township were

also concerned about the impacts on the amenity of the town. Their main question was often "why here, why not on an already degraded mine site?" Supporters of the proposal appeared to be generally committed to "green energy" and would like to see Scone brand itself in this way and they often made the statement "we would rather a wind farm than a coal mine." Many visitors to the information day appeared be open minded and curious or to have attended with a specific question for the proponent.

Please refer to the attached Community Information Day Report for an analysis of findings and resultant recommendations.

8 Impact Analysis

8.1.1 Social Infrastructure

This proposal contributes to meeting environmental and social needs as outlined in local and regional policy and planning documents (as highlighted in the fore mentioned section); including environmental health, eco-generating works, tourism, climate change, economic development, and cultural and heritage recognition. The proposed development has the potential to further enhance Scone's social infrastructure, with an apparent minimal risk for adverse impacts upon it.

8.1.2 Economy and Employment

The manufacturing and construction phase represents the largest economic component of the project, with ongoing jobs and expenditure being modest in comparison to these initial stages.

Initial estimates by Pamada reveal a total expected expenditure on the project of between 140 and 190 million dollars.

The Kyoto Energy Park is proposed to include up to 42 wind turbines creating in the range of 89MW to 126MW. The table below outlines the potential direct jobs created in the manufacture and installation of wind turbines as part of Kyoto Energy Park. Table 21 utilises the figures of 7.5 total job-years per MW and 3.7 Australian job-years per MW for the manufacture and installation stages.

Table 21: Wind Turbine Construction and Installation: Direct Job years

	Total direct job-years (7.5 per MW)	Total direct Australian Job-years (3.7 per MW)
89MW	668	329
126MW	945	466

The wind component of the park will provide ongoing employment in the area of operation and maintenance. This is estimated to be in the order of 10.2- 14.4 fulltime equivalent jobs.

Multiplier effects will be felt throughout the region and further afield as firms supply inputs for manufacture and construction, and corresponding wages are expended. Quantifying the employment effects resulting from multipliers is difficult due to the complex and emerging nature of the renewable energy sector. Estimates based upon the expected output from wind power at the Kyoto energy park and multiplier estimates from the literature for indirect jobs associated with the project give a range of between 1351 and 1911 Australian job years.

The economic impact of construction of buildings on site is simpler and can be assessed using standard ABS multipliers for the construction industry. The expected expenditure of $1.5M on such buildings is expected to create 14 direct jobs and a further 43 indirect jobs.

The addition of such a tourism component would provide further economic benefit to the local area. It would provide employment on the site and additional income from visitors. Additionally, other businesses in the area will benefit; especially those equipped to supply the tourist trade such as accommodation and food providers. Other tourism drawcards for the Upper Hunter (such as the equine industry) may also benefit from the increased profile that Scone and the Upper Hunter will receive as a source of renewable energy.

The presence of the Kyoto Energy Park will also provide an additional source of revenue, in terms of leases, to the land holders where the park will be located. The expenditure of this income by the land owners in the local area will further benefit the economy.

8.1.3 Local Amenity

The most anticipated adverse impacts of the proposed development will potentially be upon the amenity of near and adjoining neighbours, potentially including noise, shadow flicker, blade glint and visual impacts. Expert consultants assessed the potential for impacts on amenity and concluded the following.

The Noise Assessment identified only 6 non landowner residences where criteria would be potentially exceeded, of which 4 were '*considered to be negligible as they would occur less than 1% of the time'*. The 2 remaining residences; at Clifton Hills Estate is expected to experience exceedances at night time only and up to 15% of the night time in summer, whilst 'Peakhill' is expected to experience more significant exceedances, requiring mitigation in the form of sector management, which will be addressed in the Environmental Management Plan. It was recommended that noise monitoring would be required, particularly over the first few years to determine compliance. Furthermore, it was concluded that '*Construction noise from on-site activities is predicted to meet NSW Department of Environment and Climate Change (DECC) criteria'.*

The Shadow Flicker and Blade Glint Assessment concluded;

> *'Shadow flicker is not expected to be an issue at nearby houses', and that 'Blade glint can be effectively and cost effectively managed through the use of matt coatings on the turbine blades and, if so done, is not considered to be a visual impact'*

The Visual Impact Assessment (VIA), identified that rural residential areas within *'Thompsons Creek Valley, Middle Brook and Dart Brook as well as to varied degrees, the areas east of Mountain Station',* will potentially be visually impacted by the development. Recommendations for planting design workshops, creating foreground visual frames, developing new visual/garden focuses and foreground vegetation filters, and carrying out '*compensatory landscape works as needed to re-orientate views and or create new visual/garden focus',* could be used to mitigate the potential visual impacts. The VIA concluded;

> *'By mitigating the visual impacts of the wind farm components of the Kyoto Energy Park on affected locals, the environmental benefit of the development can be realised while not unduly impacting on local residents'.*

It is anticipated that all of the identified amenity impacts can and should be mitigated, compensated for or addressed in various on-site plans. The anticipated adverse impacts on the social well-being and amenity of near and adjoining neighbours should be able to be eased, mitigated or controlled if the various strategies and measures (as outlined in the above fore mentioned expert assessments), are implemented.

Aesthetically, however, the perceived visual, acoustic and landscape impacts will be widely dependent upon individual's attitudes towards the development, and as to whether or not they view the turbines to be aesthetically acceptable.

8.1.4 Community Character

Scone is a rural community surrounded by both large agricultural properties and smaller rural lifestyle blocks. It is known as the 'Horse Capital of Australia', with a strong history of land based production. This existent character does not generally reflect a large development, such as the proposed Kyoto Energy Park. However, the content of local planning and policy documents (highlighted in the fore mentioned section), in addition to the recent provision and amendment of the Scone LEP for eco-generating works, suggests that this development will in fact enhance the community character, and complement the anticipated social, economic and environmental directions of the Upper Hunter Shire Council. The Scone LEP amendment suggests that such a development will suit the character of Scone, is welcomed as a future possibility by the Upper Hunter Shire Council and will enhance the

community. Scone's character is just as much reflected in its environment, as it is its people. The importance placed on the land and the use of it for sustaining local businesses and livelihoods, reflects the need for it to be maintained and not suffer from pollution or degradation. This is something Kyoto Energy Park is anticipated to positively contribute to, promoting a healthy environment and having a minimal impact on the environmental quality of surrounding land.

Furthermore, inclusion in the development proposal is the planned establishment of the 'Moobi Foundation'; a foundation which aims to 'work with the community to support its programmes and support the message that Scone is a clean green community'. This action will assist in enhancing and promoting Scone's community character.

8.1.5 Population, Health and Safety

Due to the nature of this development, the proposed development has little relevance or influence on demographic change within the Scone and Upper Hunter regions. It is anticipated that the only population change which may occur will be that of Scone's mobile visiting population; that is through possible increased tourism and/or an increase in the number of temporary residents during the construction phase, due to the provision of additional jobs created by the development.

The health of residents will not be adversely impacted by the development; as the development is a form of renewable energy with no emissions or pollution, ultimately promoting a healthy environment, which resultantly promotes healthy people.

Safety impacts are considered to be of relatively low significance to this project. It is anticipated that all safety requirements under OH&S guidelines will be employed during design, construction and operational phases. Key Insights does not have any technical safety experience, however due to the location of turbines to surrounding properties; it is believed that resident's safety will not be put at any immediate risk. It is anticipated that any concerns about fire, dangers during construction and the erection of turbines will be minimised and mitigated through safety and design principles.

Furthermore, the Bushfire Protection Assessment concluded that the '*PBP 2006* can be complied with for this proposed development', and that their 'recommendations are provided to ensure that the development is in accord or greater than the requirements of *PBP 2006*'. If those recommendations outlined in the Bushfire Protection Assessment are to it is anticipated that the development will not pose any significant safety threats to surrounding neighbours, the wider community or visitors to the site.

8.1.6 Environment

The proposed Kyoto Energy Park development has the potential to improve the environmental quality of the wider Upper Hunter region with minimal adverse environmental impacts to the site and local area. It is anticipated that the development will not generate any emissions or greenhouse gases during operation, will contribute to state and national greenhouse gas and climate change policy targets, promote the generation and use of renewable energy, and create an opportunity to educate tourists and visitors about renewable energy and the environment.

The Ecological Site Assessment identified numerous threatened flora and fauna species, under the '*Environmental protection and Biodiversity Conservation Act (1999)*' and '*Threatened Species Conservation Act (1995)*'. However the assessment concluded;

> *'...that the proposed development was not likely to have a significant impact upon threatened species, endangered populations or endangered ecological communities and a Species Impact Statement should not be required for the proposal'.*

The proposal was also referred to the Department of Water, Heritage and the Arts, who deemed the proposal to not be a controlled action. Key Insights supports the assessment's recommendations for congruency with the Best Practice Guidelines for Wind Energy Projects (AusWEA 2002), and inclusion of ameliorative measures to minimise soil erosion and sedimentation risk.

The Bird Impact Assessment identified 5 'species of concern', however after further investigations, concluded that the Wedge-tail Eagle and Nankeen Kestrel were at moderate risk of rotor impact and the Australian Hobby, Galah and White-throated Needletail were considered to be of low risk of rotor impact.

The Ecological assessment recommended that Level 3 assessment were undertaken as part of a Bird and Bat Monitoring Program, post construction. This was to include population assessments and viability analysis in analysing risks and management for species of concern.

It is beyond Key Insights' expertise to comment on the Bird Impact Assessment, however support for its recommendations to undertake Level 3 assessment exists.

The proposed development is well in line with the Draft Upper Hunter Land Use Strategy which highlights, *'Opportunities for the development of alternative energy production and marketing of the clean green image of the LGA'*, as a key issue. Kyoto Energy Park can only be perceived to have a net environmental benefit to the Scone community and wider Upper Hunter region.

8.1.7 Heritage and Culture

The Kyoto Energy Park site has both a long Indigenous and non-Indigenous history. It is situated on a single land holder's property, whose family has lived on the property for 100 years. Heritage Assessments concluded that this site is considered to not contain any items of non-indigenous heritage significance, but that it is considered to be situated on land of significance to local Indigenous groups.

The Aboriginal Heritage Assessment states that;

> *'Whilst there will not be any impact to Aboriginal objects and places, nonetheless important Aboriginal traditional landscape will be disturbed by the project. It is important that the Aboriginal community be compensated for such disturbance'.*

It was further recommended that '*The proponent enters into a negotiated agreement with the registered Aboriginal communities prior to construction*', '*Considers the comments and requests of Aboriginal Stakeholders*', and '*Considers practical and achievable outcomes'.*

The Heritage Assessment concluded;

> *'As the item is not listed on any statutory list, nor the proposal shown to have any impact on potential heritage significance, there are no heritage constraints to the development'.*

A further opportunity for community engagement and connectivity with the development is possible through acknowledgement of the sites and community's Indigenous and non-Indigenous cultural heritage. This is through the incorporation of a visitor education information centre, educating visitors about local and regional heritage, and developing greater respect, understanding and knowledge for the region and its people.

8.1.8 Resources and Infrastructure

Kyoto Energy is expected to have a minimal adverse impacts on major local infrastructure (with the exclusion of roads), and that any adverse impacts identified can be mitigated through planning and preparation. This is because; no permanent population increases are expected to be associated with the development and Kyoto Energy Park is contained within the two privately-owned sites.

The Traffic and Transportation Impact Assessment anticipates that the major transport impacts will occur during construction (including the transportation of turbines and associated infrastructure, employee traffic, construction material transportation and the movement of construction vehicles/trucks, including heavy and large vehicles), with minimal impacts occurring during its operation, as it is a low maintenance development. This assessment recommended the use and implementation of a Traffic Management Plan (TMP), which;

> '*Shall address all aspects of road transportation and quantify impacts and amelioration procedures for improvements to local roads, community consultation and awareness, traffic and safety management. Heavy vehicle movements should not be undertaken on bus routes during school bus times'.*

An Electromagnetic Interference (EMI) assessment recommended that existent radio communication licenses be contacted as part of the wider community consultation process and that '*essential and emergency services be contacted to minimise risks with radio communications'.* Furthering their findings, it was stated that television interference could potentially occur and that '*Wind farm interference to analogue television is readily identifiable'.* To mitigate any potential interferences it was recommended that those 'most likely to experience any interference may require an assessment of their analogue TV reception prior to any wind farm operation', offering numerous suggestions for TV reinstatement options.

The Aviation Assessment concluded that further investigation, communication and compliance with the Civil Aviation Safety Authority (CASA), AirServices Australia and local aviation operators would be required to determine if the development would adversely impact local aviation operations. It was however anticipated that obstacle lighting would be required, in addition to further site modelling to avoid interference with flight procedures.

Key Insights supports the recommendations of the EMI, aviation, and traffic and transportation assessments; to ensure that any identified adverse impact on local and regional infrastructure and resources are ameliorated.

The interference of emergency communications, television reception or aviation practices are unacceptable and should be addressed prior to the construction and operation of the proposed development. The mitigation of any identified potential adverse infrastructure impacts, through the application of recommendations within the above fore mentioned reports should occur, ensuring any resultant social impacts or concerns are mitigated.

8.2 SOCIO-ECONOMIC IMPACT MATRIX

Table 22: Socio-Economic Impact Matrix

Social Impact	Comments	Significance	Measures
POPULATION CHANGE	▪ Irrelevant to development. Proposed development will not impact nor be impacted by demographic changes.	NIL	▪ Irrelevant to development.

Social Impact	Comments	Significance	Measures
ACCESIBILITY	▪ Provision of adequate disabled infrastructure on-site, particularly at the Visitor Education Information centre. ▪ Traffic and Transportation Impact Assessment deemed the site accessible to all required construction and operation vehicles.	LOW	▪ Meet all disability standards and guidelines, including on-site and access requirements (i.e. ramps, rails and disabled parking). ▪ Develop and apply the recommended Traffic Management Plan to mitigate any potential adverse impacts. ▪ Notify adjoining and near neighbours of key schedule dates, including those dates which will affect local traffic and accessibility.
ECONOMIC IMPACT	▪ Major regional investment of $140-190M. ▪ Considerable employment generation, particularly during manufacture and installation. ▪ A proportion of jobs, particularly in construction could provide local employment ▪ Ongoing benefit through operation and maintenance jobs. ▪ Multiplier impacts throughout the Upper Hunter and broader economies. ▪ Opportunity to broaden the economic base of the region. ▪ Possible short-term land devaluation on adjoining and near neighbours	HIGH	▪ The proponent should look to employ local firms and utilise local materials wherever possible during construction and operation. ▪ Opportunity to forge links with the local TAFE and schools to provide training, encouraging local apprentices. ▪ Attempt to mitigate any potential land devaluations through integration of recommendations from various assessment reports (I.e. visual, landscape, acoustic).
NOISE	▪ Additional noise will be generated during the construction phase. ▪ Noise Assessment concluded that noise will potentially affect 2	MEDIUM	▪ Integrate any recommendations made in the noise assessment report, particularly requirements for noise monitoring and

Social Impact	Comments	Significance	Measures
	residences, whereby mitigating measures may be required. ▪ Noise will be generated from visitors and tourists commuting to/from Kyoto Energy Park, however it is anticipated that this will not create any adverse social impacts.		mitigation through the environmental management plan. ▪ Restrict construction/movement of construction vehicles to daylight hours, reducing noise disruptions to local residents. ▪ Restrict opening hours of Visitor Education Information Centre to daylight hours.
TRAFFIC AND TRANSPORT	▪ Traffic and Transportation Impact Assessment concluded that an increased number of major transport impacts will occur during construction; however the development and implementation of a Transport Management Plan (TMP) would address any identified adverse impacts.	HIGH	▪ Restrict site access to daylight hours, minimising traffic and noise impacts from passing vehicles. ▪ Develop and apply the recommended Traffic Management Plan to mitigate any potential adverse impacts. ▪ Notify adjoining and near neighbours of key schedule dates, including those dates which will affect local traffic and accessibility.
VISUAL	▪ Wind turbines will be seen by Scone residents and surrounding communities ▪ Visual impacts will be experienced by some surrounding residences. ▪ Shadow flicker and blade glint report, and visual assessment report indicated that identified impacts can be mitigated.	HIGH	▪ Employ recommendations made in the visual assessment report and shadow flicker and blade glint assessment, to negate and minimise any identified visual impacts (i.e. landscaping techniques, compensatory landscapes and planting, matt coatings on blades).
PUBLIC SAFETY	▪ It is anticipated that all safety requirements under OH&S guidelines will be employed during	LOW	▪ Adopt the six recommendations identified in the Bushfire Protection

Social Impact	Comments	Significance	Measures
	design, construction and operational phases. ▪ The Bushfire Protection Assessment deemed that the development can comply with the *PBP 2006*.		Assessment to mitigate and minimise any bushfire risks or threats.
HEALTH	▪ It is anticipated that the proposed development will not have adverse impacts on human health. ▪ Development has the potential to minimise local pollution through introduction of a renewable energy resource. ▪ Development will not generate any greenhouse gases or emissions during operation.	LOW	▪ Nil
ENVIRONMENT	▪ Ecological Site Assessment deemed that the 'development was not likely to have a significant impact on threatened species, endangered populations or endangered ecological communities'. ▪ Development will contribute to reducing greenhouse emissions, reaching climate change policy targets, promoting the use of renewable energy and education the public about the environment and renewable energy technologies. ▪ Proposed development will operate an Environmental Management Plan. ▪ Development will not generate any greenhouse gases or emissions during operation.	HIGH	▪ Undertake the Level 3 Assessment of the Wedge-tailed Eagle and Nankeen Kestrel as recommended in the Bird Impact Assessment. ▪ Apply the recommendations, as outlined in the Ecological Site Assessment for congruency with the Best Practice Guidelines for Wind Energy Projects (AusWEA 2002), and inclusion of ameliorative measures to minimise soil erosion and sedimentation risk.
ADJOINING NEIGHBOURS	▪ Potential adverse impacts upon noise, visual, landscape and land value impacts on those properties adjoining and within immediate	HIGH	▪ Create an ongoing community consultation plan to facilitate communication and ensure community

Social Impact	Comments	Significance	Measures
	vicinity were identified by various expert assessments. However, these were also assessed to be able to be mitigated and minimised through various planning strategies. ▪ It is anticipated the near and adjoining neighbours will be greatest impacted by the development, however benefits will be experienced regionally. ▪ The potential for adverse impacts to affect local residents is highly dependent and reflective of personal attitudes.		concerns are addressed. ▪ Attempt to negate these impacts wherever possible, as suggested in various assessments.
EMPLOYMENT	▪ Employment opportunities for local and regional businesses and industries during construction and operational phases.	MEDIUM	▪ Employ local businesses and labour during construction and operational phases wherever possible, enhancing benefits and contributions to the local community.
PERCEPTIONS OF RISK OR COMMUNITY FEARS	▪ Concerns from the community about the lack of information made available to them and the depth/quality of information available. ▪ Information flyers have not directly been made available to residents outside of the immediate vicinity. ▪ Statement of proposal outlining details of development. ▪ Possible community confusion over exact sites of the development; name of sites (Mountain and Middlebrook Stations may not be known to wider public).	MEDIUM	▪ Create an ongoing community consultation plan to facilitate communication and ensure community concerns are addressed. Improve community engagement. ▪ Provide clear accurate information to stakeholders attending community information day. ▪ Improve community accessibility to information and increase the amount of information available to residents; especially site plans, maps, development details, construction and operational plans. ▪ Ensure residents can contact

Social Impact	Comments	Significance	Measures
			Pamada Pty Ltd to have any questions or concerns answered.
AMENITY AND CHARACTER	▪ Potential adverse impacts upon noise, visual, landscape and land value impacts on those properties adjoining and within immediate vicinity were identified by various expert assessments. However, these were also assessed to be able to be mitigated and minimised through various planning strategies. ▪ Proposal does not fit with current Scone branding (Horse Capital of Australia), however does fit with future strategic plans and policies, as outlined in various local and regional documents.	MEDIUM	▪ Highlight and integrate design/operational features which establish the project as reflecting the community, in that it enhances the local community by not degrading it environmentally. ▪ Establish and successfully operate the 'Moobi Foundation'. ▪ Refer to Noise and Visual mitigation strategies and outlined in the respective assessments.
HERITAGE AND CULTURE	▪ Heritage assessment concluded that there are no non-indigenous heritage constraints to the development. ▪ Aboriginal Heritage Assessment concluded that elements of the development site were Indigenous significant, however could be mitigated.	LOW	▪ Highlight, recognise and educate visitors about local culture and heritage in the Visitor Education Information Centre. ▪ Integrate recommendations from the Aboriginal Heritage Assessment report.
TOURISM	▪ Tourism and educational potential of development and proposed Visitor Education Information Centre.	HIGH	▪ Attract tourists to the site, further promoting Scone through advertising and linkages with local/regional tourist associations. ▪ Establish the Visitor Education Information Centre; creating a 'lookout' for the region and an opportunity to educate visitors and school groups. ▪ Use the centre to promote and educate about Scone, the

Social Impact	Comments	Significance	Measures
			Upper Hunter, renewable energy, climate change and emissions. Allow the park to be a functional educational example of renewable energy.

8.3 KEY FINDINGS

The Kyoto Energy Park proposal creates the opportunity to establish a sustainable energy market and provide renewable energy to regional markets. Furthermore, it creates the opportunity to contribute to state-wide greenhouse reduction and renewable energy targets, whilst promoting long-term environmental benefits. Through our research and consultations, key social and economic impacts have been identified.

Research indicates that the proposed development will have two levels of impacts; an overall minimal impact on the wider community and region, and a more significant impact on residents directly surrounding/adjoining the two development sites.

Potential positive socio-economic impacts associated with the proposed development include:

- Creation of **employment opportunities for local residents** during construction and operational phases.
- The proposed development will **provide significant environmental benefits** through the promotion of renewable resources, its contribution to meeting regional, state and national greenhouse gas and climate change targets, and due to the proposed development generating no new emissions or pollution from its operation.
- The development will **contribute to local and regional economies**, via the potential use of local and regional resources and businesses during construction, and through the generation of increased tourism.
- Potential to **promote local culture and heritage** (Indigenous and non-Indigenous), to visitors, through the Visitor Education Information Centre.
- The Visitor Education Information Centre will **promote education and tourism**, as it will educate visitors and school groups about renewable energy with a functioning model.

Potential negative socio-economic impacts associated with the proposed development include:

- Assessments have concluded that the **visual and acoustic amenity** of selective near and adjoining neighbour(s) may be adversely impacted. However, they also concluded that these impacts could be mitigated through planning and design. The extent of aesthetic impacts upon residents will also be dependent upon the attitudes of the individuals, towards the proposed development.
- The Land Value Impact Assessment concluded, "The wind farm development component will initially have an effect on the amenity, lifestyle and non-agricultural development component of land values in the area. The worst case scenario is that properties in view of the wind farm will suffer a reduction in value. However, our experience and enquiries has shown that this reduction is more a consequence of the perception of negative effect than actual outcomes and once developments of this nature are in place, after a period of time (generally 1 to 2 years) the effect generally reduces to zero". **Potential short-term land devaluation** is seen to be a potential short-term negative impact, which has a high probability of

being influenced by community perceptions. However, as stated in the Land valuation assessment, this impact may moderate itself over due course and become a neutral or positive impact.

On balance, the analysis informing this report concludes that the Kyoto Energy Park proposal has the potential to deliver net social and economic benefits to the wider community of Scone and Upper Hunter LGA. Overall, net social and economic benefits will be experienced by the wider communities of Scone and the Upper Hunter, whilst negative impacts will predominantly impact directly surrounding and adjoining properties and neighbours. However, the identified negative amenity impacts are subject to personal perceptions, with many being able to be mitigated and minimised through design and planning tools. Furthermore, it is anticipated that any adverse impacts on land values will be short lived, with the proposed development having no substantial long-term effects on land values.

Potential for negative social and community impacts are identified, however it needs to be viewed in context of wider regional benefits, shifts in common thinking towards climate change and greenhouse emissions, and policy and planning contexts.

8.4 RECOMMENDATIONS

Following is a statement of recommendations which has been developed to enhance positive impacts and mitigate negative impacts.

1. Adopt recommendations identified in the other expert consultant's reports, particularly those within the visual, aviation, electromagnetic interference, traffic and transportation, Aboriginal heritage, noise, shadow flicker and blade glint, bird impact and bushfire protection assessments.
2. Commit to establishing the Moobi Foundation, providing ongoing support and assistance to ensure prolonged success and positive community contributions.
3. Promote Scone and the Upper Hunter region through the proposed energy park and its associated activities, including tourism and education.
4. Utilise local and regional industries, businesses, resources and materials during both construction and operation, wherever possible, to enhance the local and regional economy.
5. Promote local heritage, history and communities (Indigenous and non-Indigenous) through the on-site visitor information centre.
6. Monitor environmental and amenity conditions (flora and fauna species, visual, acoustic) on an ongoing basis to ensure the development does not adversely impact any of these features, and mitigate any identified impacts when and where possible.
7. Minimise the impact of visiting groups, tourists and schools on local residents by restricting open hours of the Visitor Education Centre.
8. Develop a 'Near Neighbour Consultation Strategy' for ongoing proactive engagement and communication with surrounding and adjoining residents. Within this strategy, develop and implement policies which aim to increase project knowledge, increase information and Pamada staff accessibility, develop community-staff relations, create proactive engagement with residents, and establish strong relations with residents, especially those surrounding residents who may further require impacts to be directly mitigated or may further be affected by electricity connective infrastructure (I.e. Line easements, power lines and connection upgrades).
9. Improve community knowledge and strategically relay project information to Scone residents. Develop a

regular newsletter to be distributed to surrounding residents, key community organisations and stakeholders, and that can be accessed via the Kyoto Energy Park website and be displayed on community noticeboards and in the Pamada Scone shop-front.

10. Address issues of 'missing' landholders. Include them on the map and consult with such residents where and when applicable to the research process.
11. Ensure questions raised by residents (recorded in qualitative feedback notes and feedback forms), at the Community Information Day are addressed as part of the Assessment process and also during further consultations and communications with community stakeholders.
12. Inform near neighbours and residents, particularly those living on access roads of the site, of schedule plans, particularly when increased levels of traffic or noise are expected during construction periods.
13. Establish and maintain an experienced 'Community Liaison/Relations Officer' position throughout the application, construction and operational phases of the development. This ensures the community has an ongoing and reliable 'point of contact' with Pamada, allowing concerns and questions to be relayed from the community directly to Pamada Pty Ltd.

Appendix 1

ORGANISATIONAL CONSULTATIONS; PHONE INTERVIEW RESULTS

Merriwa District Progress Association

Interview completed: (via phone) 06/12/07

1. **Are you aware of the proposed Kyoto Energy Park development?** Yes
2. **What do you see as being the main potential impacts?**

   Positive - renewable energy

   Negative - not too sure
3. **Do you see clean renewable energy as a positive initiative for the region?** Yes
4. **Do you think that the Kyoto Energy Park will be beneficial to the local community?** Not sure. Unfamiliar with the location of the site and possible implications.
5. **Have you been adequately informed about the project?** No
6. **Is there any particular information that you would like to be made available to yourself or the community?** Yes - summary of possible positive and negative impacts

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Scone Chamber of Commerce and Industry

Interview completed: (via phone) 10/12/07

1. **Are you aware of the proposed Kyoto Energy Park development?** Yes.
2. **What do you see as being the main potential impacts?**

   No specific negatives or positives. Only possible positive is that it is a lot better than having a coalmine on the site. Heard that the noise may be an issue although is not sure as to the level in which this will impact.

   Suggests a delegation bus trip to a similar park for the community and interested stakeholders as a way to getter a better understanding of what the impacts will be. Wants to see how loud they are. Wants to talk to other communities about the impacts that were felt in their circumstances.
3. **Do you see clean renewable energy as a positive initiative for the region?** Yes
4. **Do you think that the Kyoto Energy Park will be beneficial to the local community?** Yes. Will not be a huge revenue generator but will bring some employment.
5. **Have you been adequately informed about the project**? Yes
6. **Is there any particular information that you would like to be made available to yourself or the community?** Kept up to date with the progress of the application. Well informed. Perhaps a quarterly newsletter.

Country Women's Association

Interview completed: (via phone) 10/12/07

1. **Are you aware of the proposed Kyoto Energy Park development?** Yes
2. **What do you see as being the main potential impacts?** Positive impacts outweigh the negatives. More green power and less pollution is far more preferable than the pollution that comes out of the Macquarie/Bayswater Plant.
3. **Do you see clean renewable energy as a positive initiative for the region?** Of course. Every little bit helps. Only concern is that they may not be able to meet their targeted plans. However hopes that they can.
4. **Do you think that the Kyoto Energy Park will be beneficial to the local community?** Yes. A cut down in pollution. The benefit will be shared and felt by the whole region in the same way it benefits the Scone area. Appreciates that the shared benefit for clean energy is worthwhile even though it is the Scone residents who will be more directly affected by the development.
5. **Have you been adequately informed about the project?** Yes
6. **Is there any particular information that you would like to be made available to yourself or the community?** Would like any information. Will read anything. Happy to learn more about it.
7. **Additional Comments;**

Residents that live north of the development seem to be in opposition to the proposal while residents that live in the valley are supportive of the proposal. Sees this as a contradiction, as people in the valley will be closer to the wind turbines. Interviewee has lived in Scone all her/his life, has been highly involved with environmental groups in the area (State and Environment Committee) and has researched the impacts of wind farms. He/she is very concerned about global warming and knows a lot about alternative energy sources. Participant does not believe that there are any issues surrounding birds, noise, and stock.

<u>Saint Mary's Primary School</u>

Interview completed: (via phone) 10/12/07

1. **Are you aware of the proposed Kyoto Energy Park development?** Yes
2. **What do you see as being the main potential impacts?** Positive- to be moving towards renewable energy. Negative- noise, appearance and aesthetically displeasing. Not as efficient as other energy sources.
3. **Do you see clean renewable energy as a positive initiative for the region?** Yes, particularly solar. Solar would less of an impact.
4. **Do you think that the Kyoto Energy Park will be beneficial to the local community?** No. Participant has friends that live out that way that are against the proposal. It will have direct environmental impacts upon the community. Interviewee attended a forum held by the CSIRO which discussed the issues of greenhouse gases and alternative energy. Believes that they presented an A-political agenda and noted that wind energy was less efficient and not as great a prospect as she initially thought.
5. **Have you been adequately informed about the project?** No
6. **Is there any particular information that you would like to be made available to yourself or the community?** Is not confident that the community is being offered a balanced view about the proposal. He/she wants

information that informs the public about the potential negatives as well as positive aspects in an honest, straightforward way.

Scone Public School

Interview completed: (via phone) 10/12/07

1. **Are you aware of the proposed Kyoto Energy Park development?** No
2. **What do you see as being the main potential impacts?** Positive - the prospect of more employment even though this is likely to only be short term (during construction phase). Negative - environmental impacts and noise.
3. **Do you see clean renewable energy as a positive initiative for the region?** Yes. But controversial in terms of how it will impact upon surrounding residents and the people of Scone.
4. **Do you think that the Kyoto Energy Park will be beneficial to the local community?** Not sure.
5. **Have you been adequately informed about the project?** No
6. **Is there any particular information that you would like to be made available to yourself or the community?** The size and the location of the wind turbines.

Scone Landcare Inc

Interview completed: (via phone) 11/12/07

1. **Are you aware of the proposed Kyoto Energy Park development?** Yes
2. **What do you see as being the main potential impacts?** Landcare have no political views on the proposal
3. **Do you see clean renewable energy as a positive initiative for the region?** Yes.
4. **Do you think that the Kyoto Energy Park will be beneficial to the local community?** Undecided
5. **Have you been adequately informed about the project?** Yes
6. **Is there any particular information that you would like to be made available to yourself or the community?** Happy with the flow of information so far (identified the media as the key provided). Hopes it continues to flow.

References

Devine-Wright, P. 2005 'Beyond NIMBYism: Towards an Integrated Framework for Understanding Public Perceptions of Wind Energy', *Wind Energy*, vol.8, no.2, pp.125-139.

Hoen, B. 2006 'Effects of Windmill Visibility on Property Values in Madison County, New York' *Bard Centre for Environmental Policy*, viewed 25th November 2007, < http://www.aceny.org/pdfs/misc/Property%20Value%20Study%20Full%20Text5_24_06.pdf>

Johansson, M. and Laike, T. 2007 'Intention to Respond to Local Wind Turbines: The Role of Attitudes and Visual Perception', *Wind Energy*, Vol.10, pp.435-451.

Parkhill, K. 2007 'Tensions between Scottish National Policies for Onshore Wind Energy and Local Dissatisfaction - Insights from Regulation Theory', *European Environment*, Vol. 17, pp.307-320.

Sims, S. and Dent P. 'Impacts of wind farm on the value of residential property and agricultural land', *A RICS Survey*, Viewed 16th November 2007, <http://www.rics.org/NR/rdonlyres/66225A93-840F-49F2-8820-0EBCCC29E8A4/0/Windfarmsfinalreport.pdf>

Sims, S. and Dent, P. 2007 'Property Stigma: Wind farms are just the latest fashion', *Journal of Property Investment and Finance*, vol.25, no.6, pp.626-651.

Sterzinger, G. Beck, F. and Kostiuk, D. 2003 'The Effect of Wind Development on local property Values', *Renewable Energy Policy Project*, viewed 25th November 2007, <http://www.crest.org/wind/index.html>.

Attachment A

COMMUNITY INFORMATION DAY REPORT

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Kyoto Energy Park Scone

Community Information Day Report

Pamada Pty Ltd

Prepared By

Key Insights Pty Ltd

25th February, 2008

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Executive Summary

A Community Information day was held at Scone Equine Centre, on Saturday 16th February, 2008. The purpose of the Information Day was to give interested people in the Scone community an opportunity to access project information, speak with the proponents and expert consultants, and understand where the project is up to in terms of seeking approvals and to ask questions about the development and comment on the proposal. These comments were recorded by Key Insights' personnel via individual qualitative comments and a standard feedback form which was given out to all attendees on arrival.

It is estimated that 150 local people attended the Community Information Day, and 56 feedback forms were received. Feedback received is not necessarily representative of attitudes amongst the wider community, but it is useful in scoping general issues associated with the project.

The qualitative response at the Community Information Day indicated a wide range of views from strong opposition to strong support. Those most strongly opposed to the project were more likely to be immediate neighbours who were feeling angry and stressed about the proposal. Some residents of the Scone township were also concerned about the impacts on the amenity of the town. Their main question was often "why here, why not on an already degraded mine site?" Supporters of the proposal appeared to be generally committed to "green energy" and would like to see Scone brand itself in this way and they often made the statement "we would rather a wind farm than a coal mine." Many visitors to the information day appeared be open minded and curious or to have attended with a specific question for the proponent.

The Feedback Forms received indicated that whilst support does exist for the proposed development, many residents still remain undecided and have further questions to be answered. Of those who responded in writing, a majority (59%) remain opposed to the project. It should be noted that typically, those opposed to a project are more likely to make a submission in writing. Furthermore, the feedback forms highlight that most residents, even those opposed to this wind farm, are supportive of environmental quality, renewable energy and sustainability. Their opposition rests in the location; most do not want the proposed development in their community and more particularly next to their own rural property.

Respondents were asked to rate the knowledge gained and questions answered at the information day and this rating was high. This indicates and supports the recommendation that Pamada Pty Ltd and the proposed Kyoto Energy Park development would benefit from having an increased level of communication, consultation and information available to community stakeholders.

Key Insights recommends that Pamada develop a "near neighbours" communication strategy for ongoing community engagement during construction and operational stages of the project.

Introduction

To effectively capture the views and opinions of local and regional community stakeholders, Key Insights consulted with community residents during a Community Information Day. The Community Information Day was held over a four hour period, 10-2pm, on Saturday 16th February, at the Scone Equine Research Centre. The session was open to everyone and operated as a 'drop-in' style format, with visitors attending at anytime during this period. The Information Day was advertised on the Kyoto Energy Park website, the Upper Hunter Council "Whats On" website, on ABC radio (Muswellbrook), in two local newspapers (The Scone Advocate and The Muswellbrook Chronicle), for two consecutive weeks prior to the day, via a letter sent from Pamada to 310 stakeholders (265 of which were to surrounding residents) informing them about the session, and on local shopfront windows in the main street of Scone. In attendance were three Pamada representatives, two Key Insights personnel and seven project consultants, including Indigenous and European Heritage, Flora and Fauna, Bushfire, Visual, Noise, and Town Planning.

The Community Information Day provided an opportunity for residents to gain access to information and expert consultants and comment on the proposed development via direct feedback given to Key Insights. Opinions and feedback were received in two forms; Individual's qualitative comments were captured by Key Insights personnel (results displayed in Appendix 1), and via feedback forms (results displayed in Appendix 2), which were given to residents on arrival. The feedback form was the principal method used for community engagement and consultation. It consisted of a series of open-ended, tick-box and scaled-response questions and considered the Scone area, the proposed development and community attitudes. The use of the feedback form captured the opinions of those residents who wanted to be engaged with the project. It is estimated that 150 residents attended the Community Information Day, and 56 feedback forms were received, the results of which have been analysed and the findings displayed below.

Analysis

Feedback received on the day, via comments and feedback forms, was useful in gaining an understanding of the key issues of importance to community stakeholders. However, as the response rate was comparatively low to the total Scone population (3,832 residents over 18 years), comments can only be made on the presented data and cannot be used to make generalised statements reflective of the region as a whole. The low feedback response does however potentially indicate that either too few community stakeholders were aware of the project and/or the general community interest in the project was low, with the core interest group being adjoining and surrounding site residents.

Individual qualitative comments (see Appendix 1), were recorded throughout the day. Mixed responses with support and opposition for the project were documented; however most comments received concerned additional questions residents had. The main issues raised were land devaluation, amenity (Noise and visual), location, electricity connections, flora and fauna, the importance of sustainable energy and impacts on the airport. Similar levels of support, opposition, concerns, questions and issues were reflected in the feedback forms received.

A subject highlighted in the qualitative feedback was the failure by Pamada Pty Ltd and key assessment consultants (visual, noise, flora and fauna), during the course of their research to include all surrounding residents on area maps, and a subsequent failure to consult personally with all neighbours. It is anticipated that Pamada Pty Ltd will address this issue and consult with the identified residents.

Responses obtained from Feedback Forms reflected the general divide that is apparent within the community; both support and opposition for the development. Furthermore, these responses also highlight support of

renewable sustainable energy but opposition to the location of the wind farm within the Scone community on the grounds of perceived negative impacts on rural amenity and impacts on near neighbours.

Respondents of the Feedback Form were gender balanced; 25 males and 23 females, however the age of respondents was skewed towards the older age groups, with 74% of all respondents aged over 41 years. 43% of all respondents had lived in the Upper Hunter LGA for over 20 years, 22% between 5-10 years, 29% under 10 years and only 6% did not live in the LGA.

Lifestyle, rural landscape, and environmental quality were some of the key factors residents perceived to be important about the Scone area. Attitudes reflected this (Table 23), with 'Maintaining Land Values', 'Maintaining Aesthetics and local amenity', 'Promoting and recognising culture and heritage' and 'Environmental improvement and sustainability', all having over 40 respondents perceiving them as 'Very Desirable' or 'Desirable'. This is compared with only one issue, 'Wind Farm Developments', receiving over 20 respondents as being 'Undesirable' or 'Very Undesirable'.

Table 23: Attitudes towards Scone and Upper Hunter outcomes

	Very Desirable	Desirable	Neutral	Undesirable	Very Undesirable	No Response
More tourist facilities	9	16	12	2	4	9
Environmental improvement and sustainability	28	13	3	-	2	10
Better roads	22	17	7	-	-	10
More local employment	16	17	10	3	1	9
Economic growth	16	17	12	-	-	11
Development of renewable resources and energy	20	16	4	1	3	12
Increased local infrastructure	13	16	15	2	-	10
Maintaining Aesthetics and local amenity	37	7	3	-	-	9
Wind farm developments	9	6	8	1	24	8
Maintaining Land Values	36	9	4	-	-	7
Promoting and recognising culture and heritage	24	19	6	-	-	7

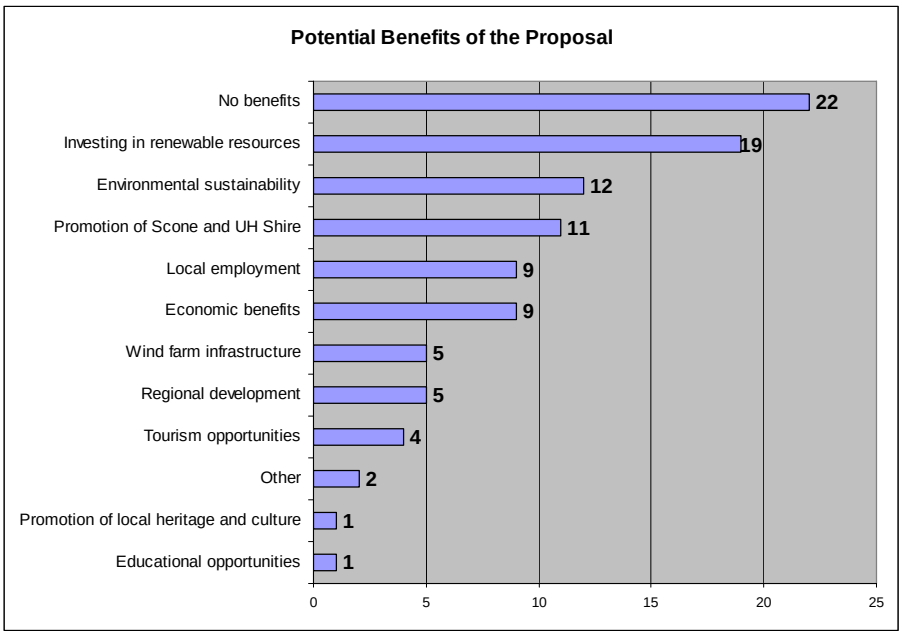
Evident in Table 24, respondents are supportive of renewable energy and associated education facilities, but are against the introduction of wind turbines and associated tourism. This is reflected in the fact that 'Solar panels and converters', 'Mini hydro-electric facility' and 'Visitor Centre- education facilities' were classed as the top three responses to be "Very Desirable' or 'Desirable', whilst 'Wind turbines', 'Location of connective power lines' and 'Visitor Centre- tourism facilities' were the three most 'Undesirable' and 'Very Undesirable' features of the proposed development.

Table 24: Attitudes towards components of Kyoto Energy Park

	Very Desirable	Desirable	Neutral	Undesirable	Very Undesirable	No Response
Wind turbines	12	6	3	4	30	1
Visitor Centre- tourism facilities	8	15	12	4	12	5
Visitor Centre- education facilities	9	17	10	2	11	7
Location of connective power lines	7	5	11	10	17	8
Solar panels and converters	21	16	6	3	7	3
Mini hydro-electric facility	17	12	9	2	9	7
Moobi Foundation	6	5	17	4	9	15

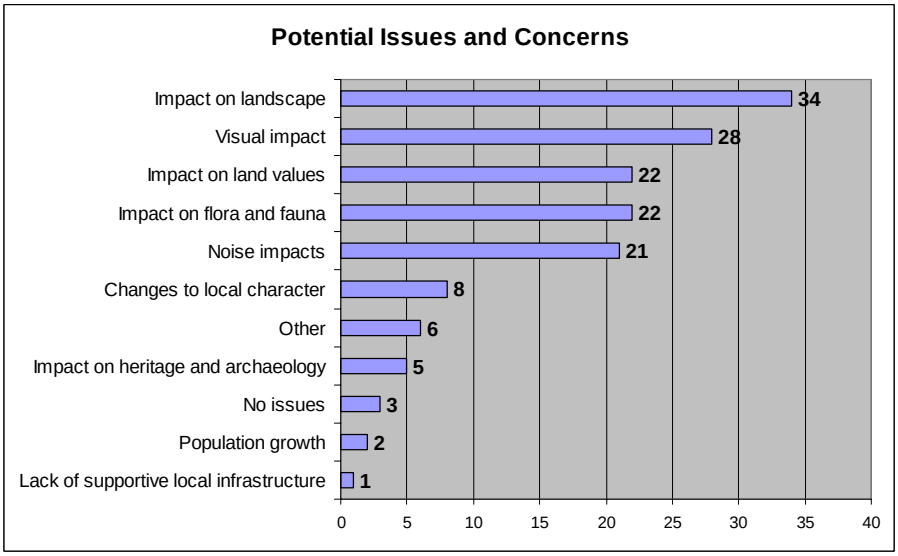
Reflective of the some of the community opposition received in the Feedback Forms (discussed later), 22 respondents deemed the proposed development to have no benefits. However, 19 respondents believed 'Investing in Renewable Resources' to be the greatest benefit of the development, followed by 12 and 11 respondents who stated 'Environmental Sustainability' and 'Promotion of Scone and Upper Hunter Shire', respectively.

Figure 21: Main benefits potentially delivered by the proposal



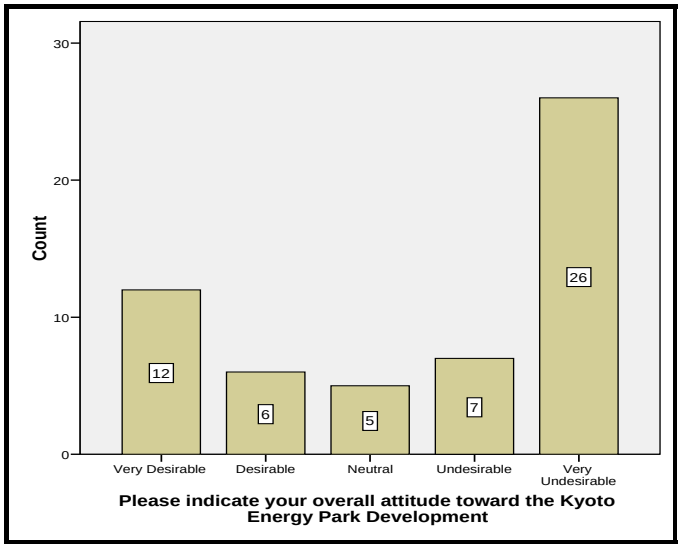
As previously stated, opposition to the wind farm is based on landscape, visual, land, flora and fauna, and noise impacts. This is evident in Figure 22 below, reflecting residents' continuing concerns.

Figure 22: Main issues and concerns potentially associated with the proposal



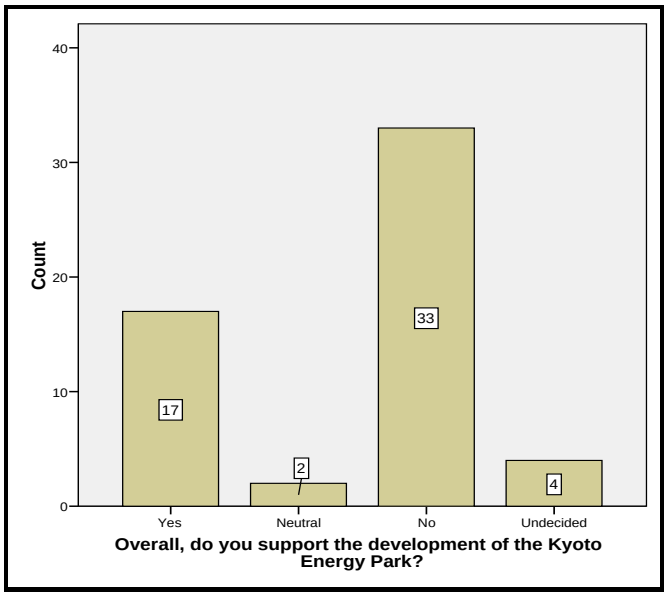
Overall, of the 56 respondents, 59% perceived the proposed development to be 'Undesirable' or 'Very Undesirable', with only 32% deeming it as 'Very Desirable' and 'Desirable', and 9% 'Neutral'.

Figure 23: Overall attitude towards the Kyoto Energy Park Development



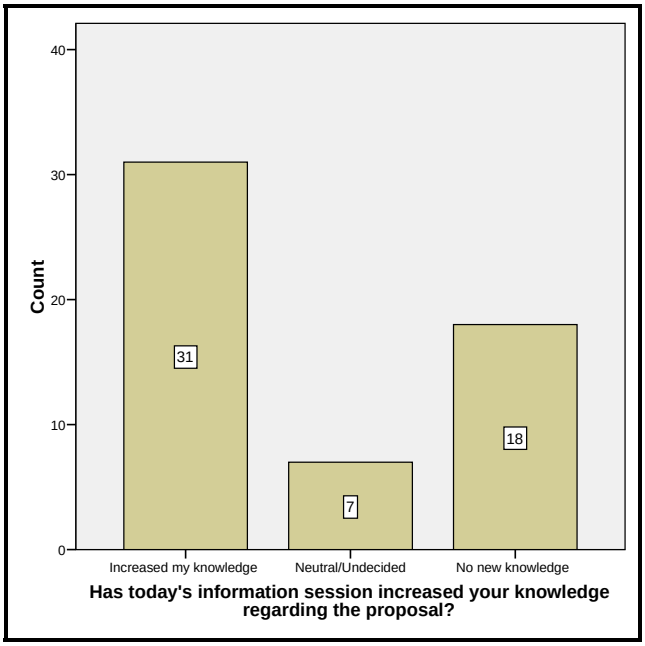
Supporting the above findings, Figure 24 below indicates that 3% of respondents are neutral to the development, 7% are undecided, 30% support the proposed development and 59% are opposed.

Figure 24: Support for the development



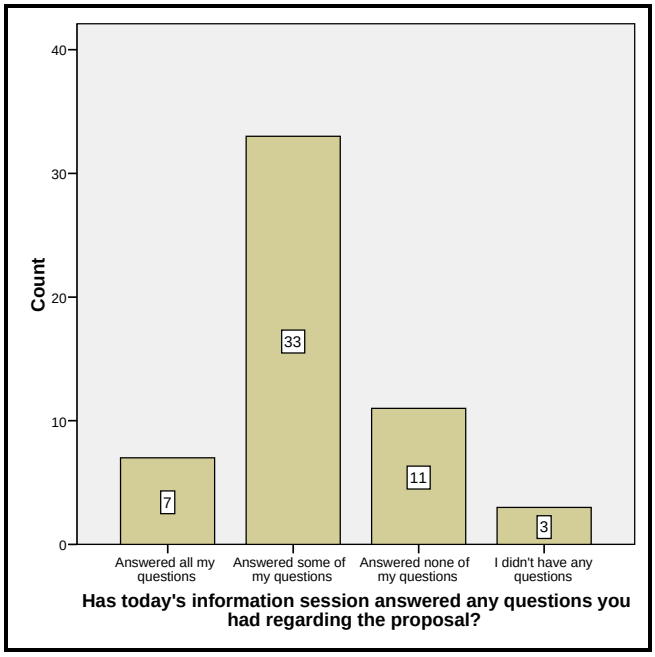
Whilst respondents supporting the proposed development were outweighed by those opposing it, the Community Information Day was received well by attendees. Indicated in Figure 25 below, over half of all respondents stated that the session 'Increased my knowledge'. The analysis results in 55% 'Increased my Knowledge', 13% 'Neutral/Undecided', and 32% 'No New Knowledge'.

Figure 25: Proposal Knowledge



Further positive responses to the Community Information Day were indicated with the fact 74% of respondents stated the Information Session answered 'all' or 'some' of their questions. Only 20% stated that the session 'Answered none of my questions'.

Figure 26: Answered Questions



The positive response to the Community Information Day indicates that whilst opposition may still be strong throughout the community, support does exist for the project, with some people still undecided as to whether they

are in support or opposition to the development. Further comments made about the project by respondents can be viewed in Appendix 2, however, similarly to the individual qualitative comments recorded, these too highlight many questions community stakeholders have about the project that need to be and could be addressed in future communication and consultation strategies.

Numerous respondents indicated that the Community Information Day was useful in increasing their knowledge and answering their questions. This support indicates that it is highly probable that any future consultation, communication and access to project information would be received well and welcomed by community stakeholders.

Recommendations

From the results of the feedback from the community information day Key Insights recommends the following:

1. Develop a 'Near Neighbour Consultation Strategy' for ongoing proactive engagement and communication with surrounding and adjoining residents, post development approval. Within this strategy, develop and implement policies which aim to increase project knowledge, increase information and Pamada staff accessibility, develop community-staff relations, create proactive engagement with residents, and establish strong relations with residents, especially those surrounding residents who may further require impacts to be directly mitigated or may further be affected by electricity connective infrastructure (I.e. Line easements, power lines and connection upgrades).
2. Improve community knowledge and strategically relay project information to Scone residents. Develop a regular newsletter to be distributed to surrounding residents, key community organisations and stakeholders, can be accessed via the Kyoto Energy Park website and can be displayed on community noticeboards and in the Pamada Scone shop-front.
3. Address issues of 'missing' landholders. Include them on the map and consult with such residents where and when applicable to the research process.
4. Ensure questions raised by residents (recorded in qualitative feedback notes and feedback forms), at the Community Information Day are addressed as part of the Assessment process and also during further consultations and communications with community stakeholders.
5. Establish and maintain an experienced 'Community Liaison/Relations Officer' position throughout the application, construction and operational phases of the development. This ensures the community has an ongoing and reliable 'point of contact' with Pamada, allowing concerns and questions to be relayed from the community directly to Pamada Pty Ltd.

Appendix 1

Kyoto Energy Park Community Information Day, Scone Equine Research Centre, 16th February 2008.

Summary notes taken by Ellen Davis-Meehan and Joshua Flack (note: line indicates new person)

- Electro-magnetic fields - how far away to have an effect on pacemakers? (Question answered by proponent)
- Within 15 km of aerodrome and CASA guidelines - what will be the impact on runway lighting?

- We would much prefer a wind farm to a coalmine? Next generation of owls will get use to it [and not fly into it].
- Live in town. Do not care either way. I guess people who were born here like the landscape the way it is; but I think wind farms are beautiful as well.

- Roads will need to be cut through pristine land for construction - that is an issue. There will be a large impact on local people for little benefit. When you consider what you have to do to get a house approved, its amazing that the state government will just pass these huge turbines. - Why are they so big?

- No issues at all; I'm strongly supportive (lives in town). These residents believe that something needs to be done by the government in terms of renewable energy.

- Our property & our neighbours property is not on the map. The noise impact on flora and fauna has not been assessed. What about my horses?
- We are less than 2km from the nearest turbine - and not on the map.
- Testing places seem to be in strategic positions out of the way. Need to justify where the sound testing was located...was it near a driveway and car?
- Totally opposed to the proposal. It is not right; it impacts on our lives for other peoples' benefits.
- Negative amenity for us and our children.
- Too close to National Parks (eagles).
- The only reason it is here is because the property has been offered. Why not down the valley on degraded mining land?
- Negative impact on beautiful ridge line.

- We live the closest and no-one has come to see us. Our new neighbours have not been consulted - there has only been three letterbox drops… we have had no personal contact with anyone from Pamada and it is a disgrace.

- An electricity tower is within 10 metres of our house; it will seriously devalue our house. It needs to be underground because that is the future.
- How do people understand the noise impacts and what do decibels mean?
- The entire valley…is becoming a big industrial area to the detriment of the ambience and environment.

- Residents need to know where the power lines will be located.
- No one really wants a turbine at their front door but in principle it's a great idea. I really hope the project gets off the ground.

- Live in Scone - very concerned about visual impacts - devastated that the wind farm is going on such a beautiful piece of landscape.
- Supports renewable energy but believes this is the wrong location.
- Is incredibly angry, very emotional. "This makes me feel that mankind is completely lost".

- Not very happy - Heartbroken. Noise will be the biggest impact we won't be able to hear the animals over the turbines. Our property is only 2.5 kilometres from a turbine.
- Doesn't think that there is a need for more power in Scone, we've got power and we're on a good grid.
- High visual impact and high sensitivity.
- There should be compensation for loss of land value and loss of amenity.
- We don't need them and we don't want them.

- Concerned about the emotion - old people losing what they have worked for, their little piece of paradise. This is upsetting and is dividing the community.
- Noise and visual impacts are an issue. I appreciate hearing nothing at night.
- 2km from the site.
- Right now buffer zones and noise aren't regulated by government. Let's wait until we can manage this more efficiently. We are not ready for this [in a legislative sense]
- People would wear it a lot better if they thought it could remove coal mining.
- Property values will drop up to 30%. People are having their properties valued to see what they are set to lose.
- There are better places to put this.

- Airport safety and changing the approach of the aircraft. CASA involvement is necessary.

- Should be more of them. Fantastic!

- How will the power sourced from the wind energy be integrated into the grid?
- Solar Vs Wind - what about using solar panels in the desert?
- Coal definitely has problems and is undesirable.

- Concern that the turbines will not be maintained into the future.
- Concerned about the impact on property values. It is a "known fact" that the creation of a wind farm would lead to a 30 per cent decline in house values. The resident states that sales have already fallen through in the area as a result of the proposal.

- Noise impacts - specific questions and issues. [Technical answers provided by noise consultant].

Appendix 2

Feedback Form Results from the Community Information Day.

What is important to you about the Scone area?

- Lifestyle and landscape.
- It is my home town.
- Scone has always been a close community in a beautiful setting.
- Good example of a progressive community.
- Natural surrounds. Lack of very close mining.
- Lifestyle, property, social activities, flora and fauna survival.
- A true rural town- Visually Attractive; set in beautiful valley, yet close enough to Sydney and coast.
- To keep it rural, not industrial.
- Resistance (so far) to mining- Ability to escape to a certain degree the impact of mining.
- Maintaining the rural attitudes.
- Family history back 3 generations. It is a rural area with the potential to remain so, yet at the same time contribute to sustainability through technology.
- Rural outlook.
- Balanced development, including character of region as rural/natural mix and setting good sustainable energy example to 1S0/4064.
- A good country community.
- Maintaining the current (or better) environment. No more mines.
- The rural ambience and the lack of noise. We have all done that drive from Muswellbrook South in the Hunter.
- Quiet friendly town-central to north-south of state.
- Keeping Scone the way it is now.
- We have lived in this beautiful area for generations and this will impact adversely on our lifestyle.
- The people, landscape and way of life.
- Local character, aesthetics, lack of industrial (particularly coal mine) development.
- The beauty of the surrounding hill and the natural landscape.
- Maintaining it as it is at present. I would have absolutely no problem with the same area covered with solar panels but unsightly inefficient wind farms are ridiculous. I know solar is very expensive power but not as unsightly.
- Ongoing prosperity with horse infrastructure as the main industry driver. Country visual amenity and low population density.
- All aspects, no special interest or indigenous.

- The very beautiful environment, quiet lifestyle and keeping it that way.
- I see it now as a possible leader as environmentally sound power infrastructure.
- Remaining a pristine rural environment without the noise and visual impact of wind farm.
- I've moved from Sydney for the peace and quiet. For the views and endless bird life.
- Attractive, friendly country town.
- Maintaining the pristine and natural environment which it is.
- Our pristine natural environment that we choose to raise our children on. We don't choose to expose them to the visual and noise monstrosities that you propose to degrade our home with.
- Scone has been able to maintain its country landscape and surrounding without being encroached on by the industrial impacts of the coal industry and its related activities. This area must remain this way as a corridor without man-made impacts such as large wind turbines.
- The landscape, the non-industrial feel and the peaceful surroundings.
- Environment. Economic growth. Better Roads.
- Further development.
- The beautiful landscape, quality of life, peace and tranquillity.
- Clean, green rural image.
- The rural landscape. The peace and quiet. The safety of the wedge tailed eagles that nest on the site. The magnificent ancient rock formations such as Castle Rock.
- Clean living.
- Development.
- The ambience of rural lifestyles.
- Strong local community, rural ambience.
- The beauteous landscape surrounding the town. The rock escarpment along Thompsons Creek Road.
- Lifestyle and it is removed from the industrial areas of the likes of Muswellbrook, which is becoming, as is most of the country landscape, over-commercialised.
- The Upper Hunter area is a beautiful landscaped area. Wonderful mountains, quiet and peaceful. It was a great place to bring up a family.
- Agriculture and Employment.
- View, employment.
- Rural, Close knit community, well established, good facilities.
- The rural landscape, community.
- The quality of life, the people, the rural lifestyle unaffected by unnecessary developments.

What is your GENERAL attitude toward the following outcomes for Scone and Upper Hunter Region? Please note - this question is not asking you to respond specifically to the Kyoto Energy Park proposal.

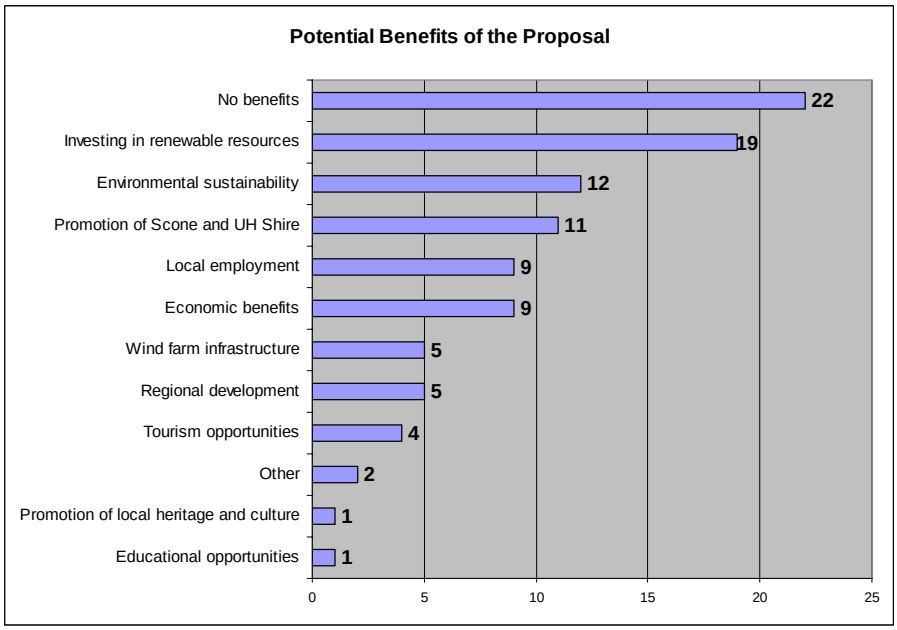
	Very Desirable	Desirable	Neutral	Undesirable	Very Undesirable	No Response
More tourist facilities	9	16	12	2	4	9
Environmental improvement and sustainability	28	13	3	-	2	10
Better roads	22	17	7	-	-	10
More local employment	16	17	10	3	1	9
Economic growth	16	17	12	-	-	11
Development of renewable resources and energy	20	16	4	1	3	12
Increased local infrastructure	13	16	15	2	-	10
Maintaining Aesthetics and local amenity	37	7	3	-	-	9
Wind farm developments	9	6	8	1	24	8
Maintaining Land Values	36	9	4	-	-	7
Promoting and recognising culture and heritage	24	19	6	-	-	7

PAMADA'S KYOTO ENERGY PARK PROPOSAL- *the following questions relate to your thoughts and attitudes regarding the Kyoto Energy Park Plan.*

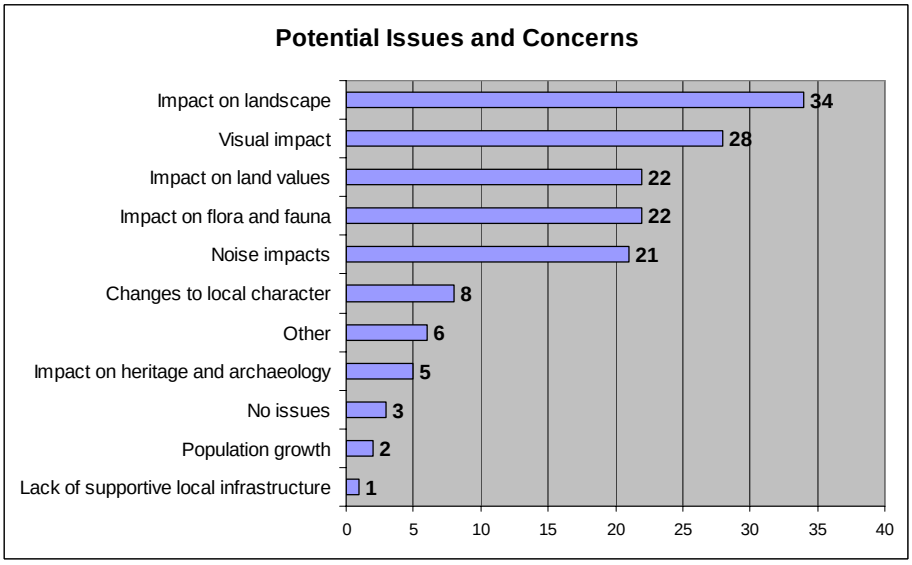
What is your attitude towards the following components of the Kyoto Energy Park proposal?

	Very Desirable	Desirable	Neutral	Undesirable	Very Undesirable	No Response
Wind turbines	12	6	3	4	30	1
Visitor Centre- tourism facilities	8	15	12	4	12	5
Visitor Centre- education facilities	9	17	10	2	11	7
Location of connective power lines	7	5	11	10	17	8
Solar panels and converters	21	16	6	3	7	3
Mini hydro-electric facility	17	12	9	2	9	7
Moobi Foundation	6	5	17	4	9	15

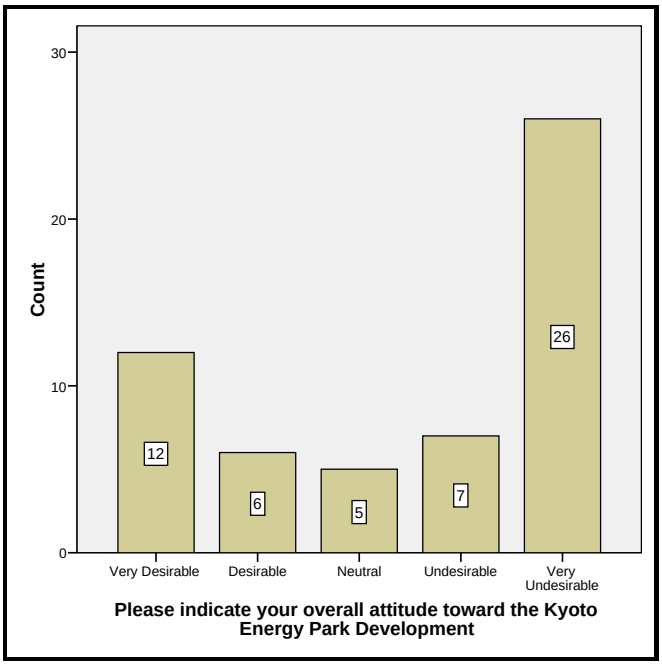
What do you regard as the main benefits potentially delivered by the proposal? Please tick up to 3 boxes only.



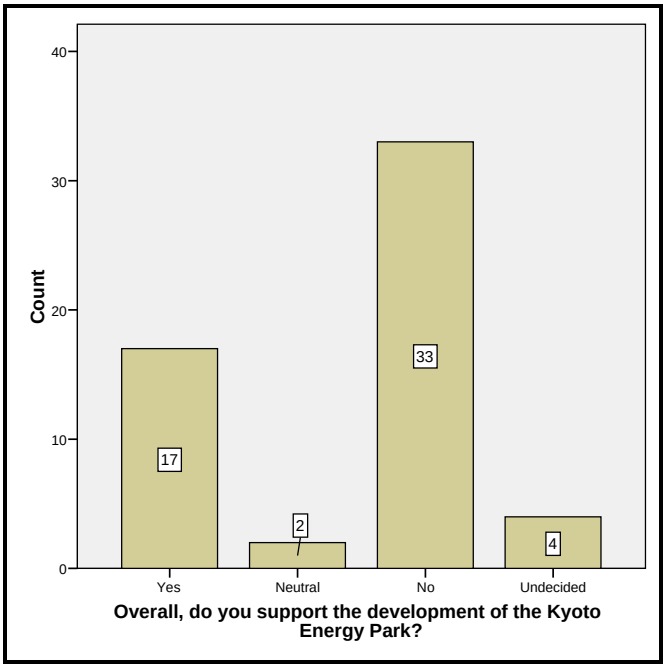
What do you regard as the main issues or concerns potentially associated with the proposal?



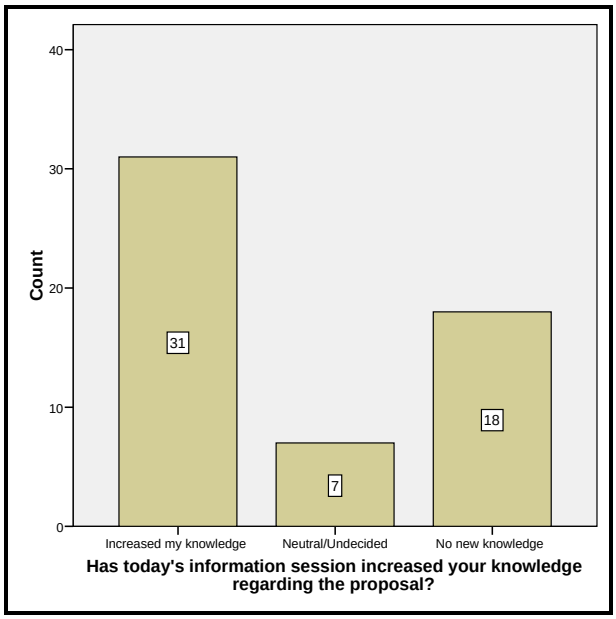
Please indicate your overall attitude toward the Kyoto Energy Park Development?



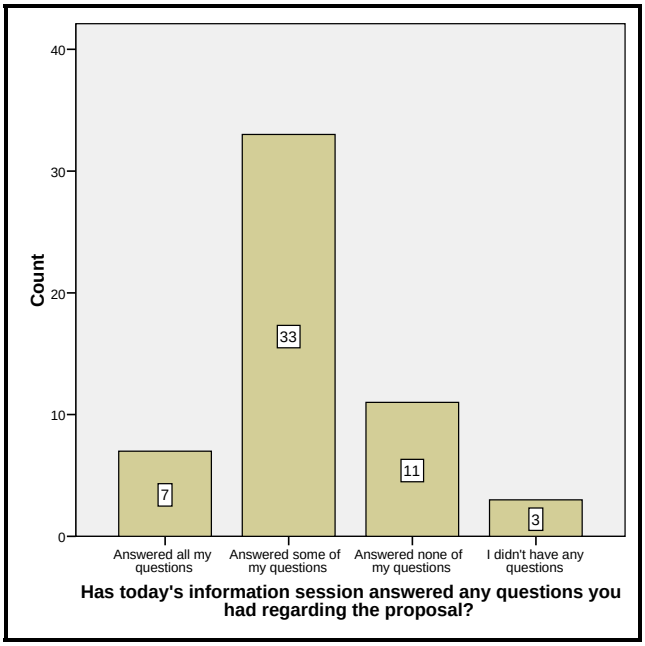
Overall, do you support the development of the Kyoto Energy Park Development?



Has today's information session increased your knowledge regarding the Proposal?



Has today's information session answered any questions you had regarding the Proposal?



Do you have any further comments regarding the Kyoto Energy Park Development?

- Think it is great. Good luck.
- To the anti's- I lived in wind farm areas in Europe for years. Never saw one dead bird. Unless within 100meters, hardly ever heard a mill, never had fires, locals invested in individual mills, covered costs and returned profit in 6 years (my family).
- On the Middle Brook station site, it appears forested. What will be the effect to the ecology there, will there be clearing?

- I think more study on noise over 12 months. Maybe compensation for adjoining property owners. Due to loss of value to properties farming subdividing.
- Very good. Thank you for the information. This project is a good example of forward thinking that will be (I am sure) seen in the future as essential.
- We need to develop sustainable power. Thumbs up wind farm.
- Turbines towers visibility on skyline for urban areas is a concern. 24/7 navigation needed for aircraft.
- Micro bats- If a blade moves at 800rpm, a bat will fly straight through. If the blade moves at 1000rpm and over, a bat will climb, accessing wind currents, right over the diameter of blades. Glossy black Cockatoos-food resources, Casuarina seed cones, hill top sites would rarely attract this species.
- Compensation should be paid to surrounding farms.
- Scale of project is of concern. Thus corporate profits as goal and criterion rather than smaller scale community wind farms and thus less impact.
- More information about the popular criticisms e.g. noise, electricity leakage, flicker etc.
- Should be more technical information- operation, capacity, specification and expected outcome.
- Need more information, concrete information about the process. Some way to gauge the visual and noise impacts. It is too difficult to make an informed decision when there are so many unknowns. I am in favour of alternate energy in general.
- Do not ruin a rural landscape for commercial gain. Double the size of the proposed and put it next to the power stations on the coal mines at a commercial site. Reclaim industrial wastelands between Singleton and Muswellbrook. Put solar hot water system, water tank and installation on and in every house in Scone would be of far more environmental value and cheaper on the long run.
- While pro alternative energy projects, I have too many doubts about the viability and efficiency of wind farms in relation to cost, visual impact, impact on flora and fauna, and if proven worthwhile, what about all the degraded land (mining) as a more suitable venue. I would have liked a more accurate picture of position of turbines in relation to specific properties and clearer map.
- We need alternative energy sources, but there are better locations for windmills (i.e. European Freeways model). The fact that the landowner stands to benefit financially is not a reason to impose this development on an unwilling community.
- Don't agree with high maintenance, design and shape of project.
- We don't want it.
- Noise at night will become an ongoing source of friction between the developer and the residents under the assessment criteria.
- Even though I am in favour of natural usage of elements, solar and wind. I have come to this meeting with an open mind, but I am not pleased with the visual aspect of this proposal. Unfortunately it will destroy the visual aspect of Scone substantially. Noise is not an issue. The number and position is. Why not in another area, less populated?
- Wind farms mostly benefit government, land holders and developer economically. Wind turbines are ineffective compared to some other forms of renewables. Brochure claims rotor blades diameters 45m, rotor

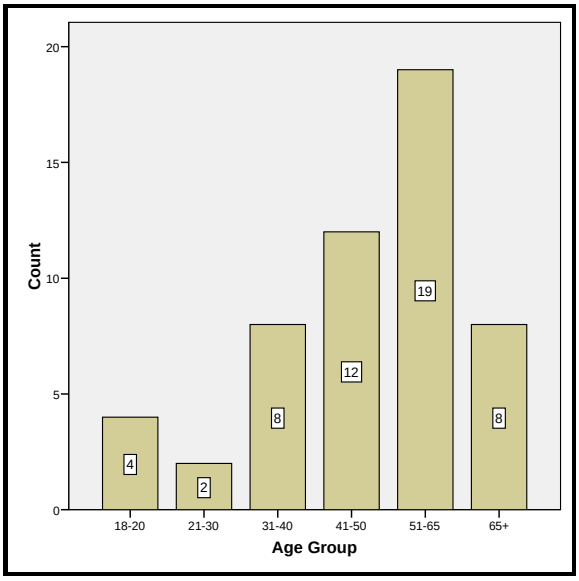
blade length 45metres, each. Why no information on lights. Local photo montage needs sky taken out- distorts effect/knowledge of wind turbines on landscapes as currently known. To conform with CASA guidelines I.e. turbines within 15km of an airfield.

- Why not along freeways as they are now starting to do in Europe as wind farms in one location is too much impact.
- Not green, not clean.
- I am not interested in having this structure erected.
- Inappropriate for a rural environment. The Hunter has already had enough undesirable development and the standard of the land reclamation/regeneration there has shown how 'the promises' being made here are likely to impact Scone in the future and we'll end up with a dump to live in.
- I feel this session is only a put on. I think we will get this thing whether we like it or not. Its just bullshit. Why don't you put these things in Newcastle, or better still in Sydney. I am sure they will appreciate them better than us.
- I believe it would be a very negative impact on the Scone area, particularly in terms of visual impact on the local landscape and detrimental to aesthetics and local amenity.
- I think they will affect the beautiful landscape of the surrounding hills and be a total eyesore. I do not support this idea.
- I just feel it is a purely money making exercise for company and landowner using carbon credits and sort subsidies to build a system that would be too inefficient to build with business funding alone. This coming from someone building a home solely powered by solar energy and unconnected grid.
- This inefficient power generation infrastructure is not wanted. This project has come about due to the financial gain by one greedy landholder who will cause ongoing and negative impact on hundreds of surrounding residences and families. It is not justice.
- I do not believe it benefits the area. It benefits financially the developer and owners of the business. It definitely does not benefit the local people of Scone.
- It seemed to me that everyone here today claiming to be consultants or directors all wanted to pass the buck onto someone else. They could not put forward any reason to support the development of this project.
- I do not object to the development of green energy sites, however the site that is currently being proposed is totally one sided to the benefit of the landholder and the detriment to the rest of the community who choose to live and work in this currently beautiful part of our country.
- I am very sceptical of the true motives behind the 'green' initiative without any initial consultation on a personal level with residents closely situated near and therefore heavily impacted on by this development.
- Why does it have to be situated here? This is just a selfish act just to make money, while residents of Scone have to suffer.
- Will we be compensated for decreased land values, noise, pollution and general disruption to our way of life?
- The Owen report into energy in NSW says that wind turbines have only a 30% working capacity. Why bother spending money on wind turbines that are inefficient. Why also erect them close to residents instead of on wasteland created by existing coal mines. A buffer zone is needed to keep the turbines 5km from residents.

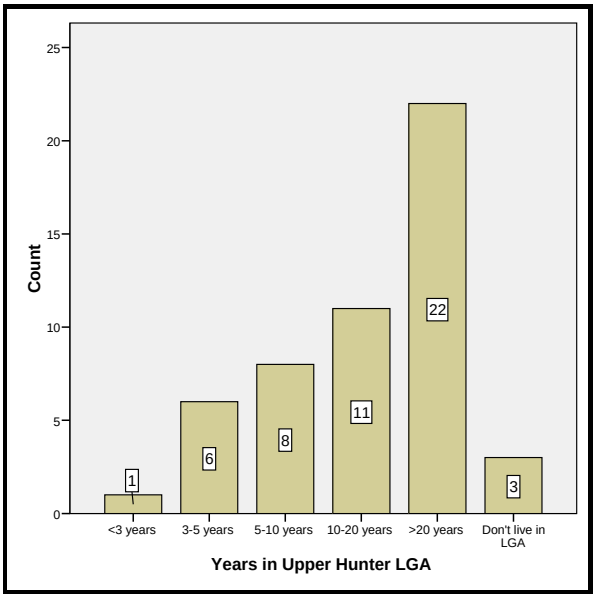
- We will be impacted by noise, so feel there should be a buffer zone of at least 5kms.
- I voted Green. I cannot fathom why such beautiful landscape has to be ruined by turbines. Put them on less beautiful ground.
- This is an obscene development to propose in our local area. Noise pollution. Build your wind farms away from population centres. Only one local family will benefit.365 days per year visual pollution. My house is only 1500m from the nearest turbine. Will there be compensation? No way can you overcome visual pollution, noise pollution and flicker.
- Severe lack of concern for local people by Pamada.

About You:

Age Group:



Gender: Female: 25, Male 23, Joint response 1, No response: 7



Suburb:

		Overall, do you support the development of the Kyoto Energy Park?				Total
		Yes	Neutral	No	Undecided	Yes
Suburb of residence	Dry Creek	0	0	1	0	1
	Middle Brook	0	0	5	0	5
	Moobi	0	0	3	0	3
	Mt Royal	0	1	0	0	1
	Muswellbrook	2	0	0	0	2
	Owens Gap	0	0	2	0	2
	Sand Hollow	1	0	0	0	1
	Satur	1	0	1	2	4
	Scone	9	1	19	1	30
	Tamworth	3	0	0	0	3
	No response:	1	0	2	1	4
	Total:	**17**	**2**	**33**	**4**	**56**