

## Draft

# Minutes of Meeting 8

Yass Valley Wind Farm & Conroys Gap Wind Farm

Community Consultation Committee

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<b>Present:</b>	Nic Carmody	Chairperson	NC
	Paul Regan	Non-involved landowner	PR
	John McGrath	Non-involved landowner	JM
	Rowena Weir	Non-involved landowner	RW
	Tony Reeves	Involved landowner	TR
	Chris Shannon	Bookham Ag Bureau	CS
	Peter Crisp	Observer	PC
	Barbara Folkard	Observer	BF
	Brian Bingley	Observer	BB
	Wilma Bingley	Observer	LB
	Noeleen Hazell	Observer	NH
	Bruce Hazell	Observer	BH
	Alan Cole	Observer	AC
	Andrew Bray	Observer	AB
	Mark Fleming	NSW OEH (Observer)	MF
	Andrew Wilson	Epuron	AW
	Donna Bolton	Epuron	DB
	Julian Kasby	Epuron	JK
<b>Apologies:</b>	Sam Weir	Bookham Ag Bureau	
	Wendy Tuckerman	Administrator Hilltops Council	
	Neil Reid	Hilltops Council	
	Stan Waldren	Involved landowner	

**Absent:** Councillor Ann Daniel Yass Valley Council

**Date:** Thursday 23<sup>rd</sup> June 2016

**Venue:** Memorial Hall Annex, Comur Street, Yass

**Purpose:** CCC Meeting No 8

**Minutes:**

Item	Agenda / Comment / Discussion	Action
1	NC opened the Community Consultation Committee (CCC) meeting at 2:00 pm. Apologies were noted as above.	-
2	<b>Pecuniary or other interests</b> No declarations were made.	-
3	<b>Minutes of Previous meeting</b> No comments were received on the draft minutes of meeting number 7, which had been emailed to committee members. The draft minutes were accepted without changes and the finalised minutes will be posted on the project website.	AW
4	<b>Matters arising from the Previous Minutes</b> JM raised that the planned quarterly meetings had not been occurring and that the previous meeting was in March 2014. AW explained that a CCC meeting had been scheduled in June 2014, but had been cancelled by the committee. The committee did not want to meet until there was an update on the projects. The recent planning approval of the Yass Valley Wind Farm prompted the scheduling of the current meeting. JM did not feel that adequate consultation had occurred about timing of CCC meetings. AW explained that any committee member can request a meeting. AW confirmed that the 330 kV connection option (powerline) for the Yass Valley Wind Farm had not been approved.	
5	<b>Wind Industry Update</b> AW explained that the outlook within the industry has improved over the last 12 months as there is more certainty around the Renewable Energy Target (RET). There is sufficient need for projects such as YVWF and CGWF within the current target.  AW described the most recent wind farm project that has commenced construction near Glen Innes in northern NSW: White Rock Wind Farm (175MW). The project is owned by Goldwind Australia.  AW listed a number of renewable energy projects from a June Clean Energy Council report that had commenced construction since mid-2015. Post meeting note: the	

Item	Agenda / Comment / Discussion	Action
	<p><i>Progress and status of the RET</i> report is available at <a href="https://www.cleanenergycouncil.org.au/policy-advocacy/reports.html">https://www.cleanenergycouncil.org.au/policy-advocacy/reports.html</a></p>	
6	<p><b>Conroys Gap Wind Farm update</b></p> <p>AW advised no change in the status of the Conroys Gap wind farm project.</p> <p>AC asked about timing of the project and certainty. AW explained that a contract for supply of wind turbines is in place, but that a commencement date has not been confirmed. NC clarified that like subdivision, the planning consents given now do not lapse and Conroys Gap Wind Farm consent is ongoing. The project does not currently have a PPA.</p> <p>AC asked if the project was in construction and inquired about conditions prior to construction. AW offered to review the conditions of approval as he could not recall the exact wording. Conditions required to be carried out 'prior to' and 'pre' construction could be undertaken at any time up until construction commences on site. This has not occurred yet.</p> <p>JM asked about the status of wind monitoring towers on the site and BF asked when they would be removed. AW explained that the towers were continuing to collect data which was of value to the project. There are no plans to remove the masts until construction commences on site.</p>	
7	<p><b>Yass Valley Wind Farm Update</b></p> <p>AW confirmed that Yass Valley Wind Farm had been granted approval for 79 turbines on the Coppabella precinct. The Marilba precinct and the 330 kV powerline was not approved. Details are on the Epuron website and Department of Planning &amp; Environment website. 79 turbines out of a total of 124 turbines have been approved. Epuron is working closely with a financing partner in preparation for financial close and the commencement of construction.</p> <p>AC asked how many turbines were moved as a result of Community Consultation. AW - 152 turbines were initially proposed and a number of those were removed and moved as part of the final proposal submitted. A map of the initial vs the revised layout is available in the Preferred Project Report. AC interested in turbines that had been removed as a result of feedback from non-host landowners.</p> <p>JM asked about neighbour agreements. AW explained that a community fund had been proposed with the aim to have benefits shared with the local community. In addition, the industry has accepted criticism that this doesn't always go to the neighbouring residents. Epuron is considering neighbour agreements for residences located within 2-3 km of a wind turbine.</p> <p>JM asked about the feasibility of the proposed turbines on Black Trig. AW noted that the Black Trig is located within the Conroys Gap Wind Farm and that these turbine locations had been approved. JM asked about the grid connection for the Yass Valley Wind Farm. AW confirmed that the connection point will be to the north via the 132 kV transmission network. The host land has an easement for the existing 132 kV transmission line. The land required for the wind farm substation would be subdivided and ownership transferred to TransGrid. The ownership of the powerline from the collection substation to the transmission substation (adjacent to the existing 132kV line) could be by either the wind farm company or TransGrid.</p>	AW

Item	Agenda / Comment / Discussion	Action
	<p>AC asked about the timing of the project. AW noted that this is still to be confirmed. The project is aiming to commence construction soon. The planning approval phase took approximately 8 years and in comparison, the anticipated commencement of construction could be considered 'soon'. The CCC will be updated once there is more certainty on commencement date.</p> <p>PC asked what subsidies are provided for the wind turbines? AW noted there is no direct subsidy for wind farms. The policy mechanism is the RET. All generators get paid for energy (MWh) dispatched on to the network. Spot market works on a 5 minutes dispatch. Wind has the ability to dispatch at \$0 due to zero fuel costs. The generator could operate on the spot market as a trader or could have an agreement in place (Power Purchase Agreement PPA). In addition to energy payments, renewable energy generators receive payment for Renewable Energy Certificates (RECs). DB added that a couple of years ago IPART produced a chart showing the breakdown of costs in the energy sector. Green schemes added up to 3% of a retail energy bill.</p> <p>PC added that a local member (Angus Taylor) had claimed the subsidy is between \$600,000 - \$800,000 per turbine. PC noted that David Gillespie (?) claimed that it comes from the power bills.</p> <p>JM added that from his experience the turbines did spin, but they did not produce any energy. AW explained that all power generated by a wind farm is metered, so if there is no power generated the wind farm would not be paid.</p> <p>BF asked about power distribution. AW noted the power is fed into the network (the National Electricity Market) and is consumed where the load is connected to the network. The RET requires the electricity retailers to purchase a portion of their energy sales from renewable sources relative to their share of the market and how much renewable energy is generating. If they don't meet their target they pay a penalty.</p> <p>AC asked how many sustainable jobs the project would provide. AW gave figures from similar wind farm projects in the area: Cullerin Range – 3 FT jobs, Gunning has 9, the estimate for Yass Valley WF could be in the order of 12-15.</p> <p>AW gave an update on the proposed Community Fund. There are 13 approved turbine locations in the Yass Valley Council LGA and 66 in the Hilltops Council LGA. The annual contribution to the fund will be \$2,500 for every turbine constructed. The money would be administered by council, but there will be a committee that decides how the funds are spent.</p> <p>NH – has met with council and been advised by the GM that only 20% of the money would be spent in Bookham.</p> <p>BF asked what compensation will be paid to the neighbours due to medical issues arising from the wind farm? AW noted that all peer reviewed studies to date and statements by organisations such as AMA, NSW Health, NHMRC have concluded that there are no health issues attributable to wind turbines.</p> <p>AB added that extensive study done in Canada, considered a gold standard study. Senate Standing Committee did not mention this study in their report.</p> <p>NH added that \$3.3 million has recently been allocated to continue study in this area in Australia.</p>	<p>Attach IPART info to minutes</p>

Item	Agenda / Comment / Discussion	Action
8	<p><b>Revised Community Consultation Committee Guidelines</b></p> <p>Revised guidelines were issued for comment in February 2016. The guidelines are expected to be finalised in August 2016. NC read out email from the Department of Planning &amp; Environment confirming their expectations that the current Yass Valley Wind Farm &amp; Conroys Gap Wind Farm Community Consultation Committee be dissolved and reformed in accordance with the revised guidelines.</p> <p>AW summarised the process to reform the committee:</p> <ul style="list-style-type: none"> <li>- Proponent proposes 2 possible candidates as chairperson of the CCC. The Department then selects the chairperson.</li> <li>- Proponent calls for nominations for committee members. Nominations are sent directly to the chairperson. The chairperson then selects the committee members in accordance with the requirements set out in the guidelines.</li> </ul> <p>Guidelines are draft, might make sense to wait until they are finalised before commencing this process. AW will send a copy of the guidelines with the minutes.</p> <p>The intent is that there will be two CCCs, one for Yass Valley Wind Farm and one for Conroy's Gap Wind Farm now that they are separate projects with some distance between them.</p> <p>NC continued to summarise the CCC guidelines – there is no specific requirement for frequency of meetings, but it is suggested that during construction they occur 4 times a year.</p>	Attach revised CCC guidelines to minutes
10	<p><b>General Business</b></p> <p>Clarification on planning approval process – Epuron confirmed that the Department of Planning &amp; Environment initially recommended that the project be refused, the PAC asked questions to the proponent and proponent responded. The PAC reviewed the information and requested that the Department review their decision. The Department then recommended that the PAC approve Coppabella precinct and not the Marilba precinct.</p> <p>Question was asked why only select people were consulted during the PAC process. MF confirmed that if there are fewer than 25 submissions (objections) they don't need to hold a public meeting.</p> <p>AC – There is no legal obligation to consult a landowner about the project.</p> <p>AW – The Director General's Requirements issued for the project included requirements for the community consultation that were required to be carried out. The details were provided in the Environmental Assessment and Submissions Reports. NC – I understand that there is no legal obligation to notify neighbours of a proposal.</p> <p>Project consent conditions - AW to check if they are on the project website and if not, then add them.</p>	Add consent conditions

Item	Agenda / Comment / Discussion	Action
	<p>BF suggested Epuron develop solar projects rather than wind farm projects. AW noted that Epuron develops both wind and solar projects and has constructed a number of large scale solar plants in the NT. Epuron currently own and operate a 7 MW portfolio of solar plants.</p> <p>What is the cheapest source of renewable energy? AW noted that wind was still the cheapest form of renewable energy, followed by solar PV. The NSW Department of Energy &amp; Resources has issued a chart that shows the forecast of costs of energy types into the future.</p>	to the Epuron website
11	<p>BF – What safeguards are provided at decommissioning of wind farms? AW noted that the conditions of approval have specific obligations on the wind farm operator and that the land lease agreements also include specific obligations to be met.</p> <p>BF – Compensation for health effects from wind turbines? AW – From proponent perspective, we listen to the experts and the outcome has been that there is no evidence of any adverse health effects from wind turbines.</p>	
12	<p>PR asked what the cost of a turbine was and what CO<sub>2</sub> emissions were generated during the manufacture and installation of a turbine? AW - \$4-6 million depending on the size of the turbine. The CO<sub>2</sub>emissions are offset by CO<sub>2</sub> savings in the first 12 months of operation of a turbine. AW will confirm the figures from studies that have been conducted.</p>	AW
13	<p>JM asked to table a report prepared by Peter Reardon (2013) on the impacts of wind farms on land values. The report was commissioned by the Boorowa Landscape Guardians and reviewed three property sales over a 5 year period.</p> <p>AB noted that the methodology used for land valuation is difficult in rural areas as there are not enough sales to make the methodology work. Instead a like-for-like comparison is more appropriate. AB added that there have been sales in the areas of Taralga, Tarago and near Capital Wind Farm.</p> <p>NC proposed to approach Federal Member Pru Goward to ask that the Valuer General conduct another study into property values around wind farms.</p>	NC
14	<p>NH expressed she had concerns about a number of issues: decommissioning, land values and the consent condition that suggested that neighbours request screening for visual impact only after the turbines had been built. AW suggested that the intention of the consent condition was not to discourage objections, but to enable any screening mitigation to be more effectively designed. BH added his objection to the proposal.</p>	
15	<p>AW tabled an Epuron response to a leaflet delivered to mail boxes by the Yass Landscape Guardians. Copies of the response were provided to observers and members of the CCC and to the president of the Yass Landscape Guardians.</p>	
14	<p><b>Next meeting:</b></p> <p>A next meeting for the CCC was not scheduled. It is likely that the next meeting will be called after a new CCC has been established in accordance with the new CCC guidelines.</p>	

Item	Agenda / Comment / Discussion	Action
15	<p>NC thanked the committee members for their contribution to the meeting.</p> <p>Meeting closed at 4:15 pm</p>	

### Attachments

Community Consultative Committee Guidelines – Final Draft Feb 2016 (NSW Department of Planning & Environment)

Jobs: Benefits of Wind Energy in Australia (CEC)

Health: Wind Farms and health fact sheet Jan 2015 (CEC)

Property values - Wind Energy Fact Sheet 2 – Wind Farms and Property Prices (CEC)

Decommissioning - Wind Energy Fact Sheet 4 – Decommissioning Wind Turbines (CEC)

Wind turbine energy payback (Siemens)

Response to Yass Landscape Guardians Community Update: May 2016 (Epuron)

Summary of wind turbines removed/relocated during development (Epuron)

Breakdown of retail electricity cost (IPART)

# **Community Consultative Committee Guidelines**

## *State Significant Projects*



# Community Consultative Committees

## Introduction

The Department of Planning and Environment (the Department) is committed to encouraging strong engagement between proponents, the community and key stakeholders on State significant projects.

This is to ensure that the community and key stakeholders are:

- kept informed of the status of projects, any new initiatives, and the proponents' performance against any conditions of approval;
- consulted on the development of projects, proposed changes to approved projects, and the development of management plans; and
- involved in resolving key issues that may arise during the development or implementation of projects.

Community Consultative Committees play a critical role in ensuring proponents engage with the community and key stakeholders by providing an open forum for discussion on State significant projects.

The Department has developed these guidelines to ensure Community Consultative Committees operate effectively.

The guidelines include a toolkit to help establish and operate Community Consultative Committees.

## Purpose of the Committee

The purpose of a Community Consultative Committee is to provide a forum for open discussion between representatives of the Company,<sup>1</sup> the community, the local council and other key stakeholders on issues directly relating to a project, including performance against any conditions, and to keep the community informed on these matters.

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<sup>1</sup>In these Guidelines, the term 'Company' is a generic term that refers to the holder of an approval for a State significant project or the proponent of such a project.

A Community Consultative Committee is not a decision-making body and performs an advisory role only.

More specifically, the Committee provides a forum to:

1. Establish good working relationships between the Company, the community and other key stakeholders on individual projects.
2. Allow ongoing communication of information on the project and environmental performance, including about:
  - the development of new projects, including site selection, design and any mitigation measures;
  - development assessment – including scoping of issues for assessment and commenting on assessment documentation (optional);
  - implementation of conditions of approval and any management plans;
  - results of environmental monitoring;
  - annual review reports; and
  - outcomes of audit reports (including audits required as a condition of consent).
3. Comment on the project's performance against any conditions of approval.
4. Discuss community concerns and review the resolution of community complaints.
5. Discuss how best to communicate relevant information about the project and its performance to the broader community.
6. Work together towards social, environmental and economic outcomes that benefit immediate neighbours, the local and regional community, and the development.

The Committee may:

1. Provide advice to the Company on the development of new projects and measures that could be implemented to minimise any impacts.
2. Identify key issues for the assessment of projects and comment on any assessment documentation.

3. Review the performance of the project and provide feedback to the Company and/or relevant State agencies regarding environmental management and community relations.
4. Review draft management plans and provide suggestions for improvement.
5. Undertake regular inspections of the project's operations.
6. Review the Company's complaints handling procedures and the handling of concerns or complaints from the community regarding operations, environmental management or community relations.
7. Provide advice to the Company on how to improve community relationships, including in relation to:
  - providing information to the community;
  - identifying community initiatives to which the Company could contribute; and
  - identifying emerging social, environmental and economic issues that may arise at different stages throughout the life of the project.
8. Provide appropriate information to the general community on performance with respect to environmental management and community relations.
9. Liaise with the Community Consultative Committees of other projects where there are common issues or where there is the potential for cumulative impacts, with a view to information sharing and holding joint meetings on matters of common interest.
10. Undertake any other matter required of it in the Secretary's environmental assessment requirements or conditions of approval.

Responsibility for oversight of the project's compliance with the condition of any government approvals remains with the relevant government agencies.

## Establishment of the Committee

Some flexibility is required in the establishment of Community Consultative Committees, as engagement requirements can differ from one project to the next.

It is important to recognise that not all State significant projects will require a Community Consultative Committee, and that in some cases there may be better ways to ensure there is effective community engagement on these projects.

Further, Community Consultative Committees could be established at different stages of a project. In some cases this may be prior to an application being lodged,

when there is likely to be some merit in ensuring there is extensive engagement on the development of the project; and in other cases, this may occur only following approval.

The Department will decide when the Community Consultative Committee should be established, and require it to be set up in the:

- Secretary's environmental assessment requirements for the project; or
- conditions of approval for the project.

Finally, some Community Consultative Committees may have a defined life, and could be dissolved after a particular stage of the project is completed, or if the Committee decides there is little benefit in continuing the operations of the Committee.

## Members of the Committee

### *Membership of the Committee*

Membership of the Committee shall comprise:

1. One Independent Chairperson;
2. Three to five community representatives, including in some cases representatives from environmental groups;
3. One council representative; and
4. Two or three Company representatives, including the person with direct managerial responsibility for environmental management.

The representatives of the Company are part of the Committee. The Independent Chairperson may request or agree (on a needs basis) that additional Company representatives be invited to attend meetings if additional specialist, technical or project-specific advice is required.

While State government agencies will not be represented on the Committee, the Independent Chairperson may invite agency representatives to attend particular Committee meetings (on a needs basis).

### *Independent Chairperson*

The role of the Independent Chairperson is to be a convenor, facilitator, mediator and advisor for the Committee. They must undertake their role in an independent manner and at all times act impartially with respect for the Company and any individual or representative on the Committee.

The Company is responsible for nominating an appropriate Independent Chairperson to the Department. The Company must provide at least two options for the role of Independent Chairperson and

provide the Department with the following information on behalf of each nominee:

- covering letter addressing each nominee’s suitability for the position;
- current CV; and
- signed Nomination and Pecuniary/Non-Pecuniary Interest Declaration form (*refer to Toolkit*).

After considering these nominations, and (if necessary) carrying out further consultation, the Secretary of the Department (or a nominated representative) will consider these nominations and:

- appoint one of the nominees as the Independent Chairperson;
- seek additional nominees; or
- appoint an alternative person as the Independent Chairperson.

In selecting the Independent Chairperson, preference will be given to a candidate who can manage and represent the concerns of a variety of interest groups.

The selection criteria for the role of Independent Chairperson are:

- ability to convene and manage stakeholder committees in an independent manner;
- experience in community relations, facilitation, mediation or public advocacy; and
- understanding of the development and awareness of local issues.

The Independent Chairperson will report annually to the Department on the operation of the Committee, or more often if the Independent Chairperson or the Department deems it appropriate.

The Secretary (or a nominated representative) may review the appointment of the Independent Chairperson at any time.

Where three or more Committee members are concerned about the manner in which the Independent Chairperson is fulfilling the role (e.g. there is an ongoing perception of bias, inappropriate control, or a refusal to share information or to adhere to the wishes of the Committee), they may request that the Secretary reviews the Independent Chairperson’s appointment, with a view to making a new appointment.

### **Community representatives**

Community representatives will be selected from the local community and other stakeholder groups, including in some cases recognised environmental organisations.

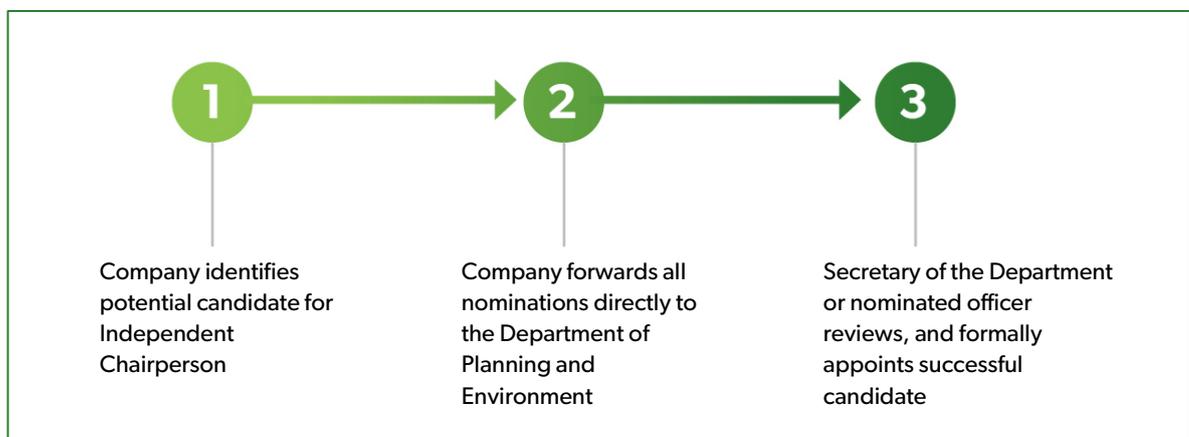
Employees or contractors of the Company are not eligible to be appointed as community representatives.

In selecting community representatives for the Committee, preference will be given to the candidates who can represent the concerns of either a significant interest group or a variety of community interests.

The selection criteria for community representatives are:

- current residents of the area;
- demonstrated involvement in local community groups and/or activities;
- knowledge and awareness of the project and related issues of concern to the local community;
- ability to represent the local community and other stakeholders; and
- willingness to adhere to the Committee’s code of conduct.

### **Selection process for the Independent Chairperson**



The selection criteria for environmental representatives are:

- a representative of a recognised environmental organisation;
- knowledge and awareness of the project and related environmental issues of concern to the broader community;
- ability to represent the environmental concerns of the broader community; and
- willingness to adhere to the Committee's code of conduct.

### ***Appointing community representatives***

Local community representatives will be selected and appointed to the Committee by the Secretary (or a nominated representative) following appropriately prominent placement of at least two advertisements by the Company in local media publications (i.e. local newspaper) (*refer to Toolkit*). The Company may also consider advertising through one or more of the following avenues:

- local businesses;
- community or sporting centres; and
- local council websites.

The advertising period must be adequate to allow interested community members reasonable opportunity to make an application. A four-week advertising period is recommended to allow the community time to view the information and for individuals to apply.

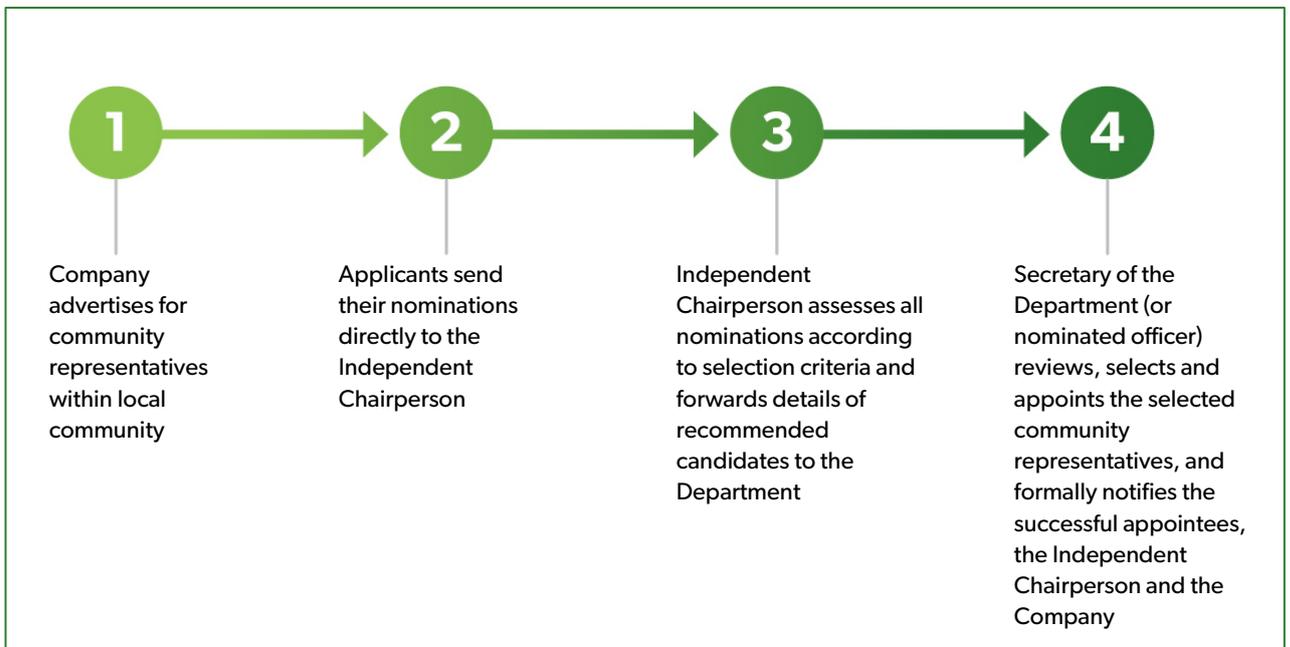
While the advertisements calling for nominations must be placed by the Company, all applications are to be mailed directly to the Independent Chairperson, who must be appointed before the selection process for community representatives commences.

The Independent Chairperson will review all applications in line with the above selection criteria, and forward the names and applications of all community representative applicants to the Department, along with the recommended candidates.

The Secretary (or a nominated representative) will review all applications and the Chairperson's recommendations then appoint the community representatives, and formally notify the successful appointees, the Independent Chairperson and the Company.

The Secretary (or a nominated representative) may review the appointment of community representatives at any time.

### ***Selection process for Community Representatives***



### ***Company and Council representatives***

Company and local council representatives will be appointed to the Committee directly by the Company and the local council respectively.

### ***Alternate representatives***

The Secretary (or a nominated representative) may appoint alternative community representatives to the Committee. These representatives may act as a substitute for a community representative of the Committee if a member is unable to attend a meeting.

Alternate representatives for Company and local council members may be appointed by their organisation and similarly may substitute for Company and local council members of the Committee.

## **Committee meetings**

### ***Timing and location of meetings***

In some cases, the Secretary's environmental assessment requirements for a project or the conditions of an approval may stipulate a minimum number of meetings.

However, if there are no express requirements, each Committee shall determine the frequency of its meetings. It is suggested that the Committee meets at least four times a year during the construction period of a project, and during the first two years following commencement of operations. In some cases there may be a need for the Secretary to stipulate the number or frequency of meetings.

Any member of the Committee may ask the Independent Chairperson to convene an Extraordinary Meeting of the Committee at any time to discuss important and urgent matters warranting consideration. The Independent Chairperson shall determine whether an Extraordinary Meeting is warranted.

At least four weeks' notice must be given to all members of any meeting of the Committee (except Extraordinary Meetings where two weeks' notice can be given). Meetings should be held at a time and place generally convenient to all Committee members.

The Company shall provide facilities for Committee meetings if required to do so by the Committee.

If there are a number of Community Consultative Committees within a Local Government Area or region, consideration can be given to establishing a regional Committee, or holding periodic, region-based community information sessions or similar, to consider and discuss cumulative impacts in areas with a high concentration of State significant projects.

### ***Meeting proceedings***

The Independent Chairperson shall convene and chair all meetings of the Committee. As the Committee is not a decision making body, it is not a requirement that consensus be reached on issues discussed at meetings.

The Independent Chairperson shall determine the agenda items and produce the agenda for each meeting. Any member may propose a matter for inclusion on the agenda, either before or during a meeting, providing the matter is within the scope of the Committee.

The Independent Chairperson should ensure that issues of concern raised by community representatives on behalf of the community are properly considered. Late items may be deferred to a following meeting.

The Independent Chairperson shall:

- formulate meeting agendas;
- convene and run meetings in a fair and independent manner;
- facilitate discussion to ensure all members are provided with an opportunity to speak and share their views;
- identify any items of a confidential nature so that Committee members understand how this information may, or may not, be used;
- support constructive dialogue; and
- resolve disagreements or differences of opinion in a fair, transparent and mutually-supportive manner. The Committee may decide to undertake its regular inspections of the project in conjunction with its meetings, or at other times convenient to it.

Committee meeting agenda items would normally be expected to include:

1. Apologies.
2. Declaration of pecuniary or other interests.
3. Business arising from previous minutes – response to issues raised or provision of additional information requested.
4. Confirmation of the minutes of the previous meeting.
5. Correspondence.
6. Company reports and overview of activities:
  - progress of the project;
  - issues arising from site inspections;
  - monitoring and environmental performance;
  - community complaints and response to complaints; and
  - information provided to the community and any feedback.

7. General business.
8. Next meeting.

### **Minutes of meetings**

Minutes must be kept of all Committee meetings. The minutes shall record issues raised and actions to be undertaken, who is responsible for carrying out those actions and by when. If a member so requests, then the minutes shall record that member's dissenting views on any matter.

The minutes are normally to be recorded by the Company and draft minutes must be distributed to all Committee members as soon as practicable after the meeting. The Company shall ensure that a copy of the draft minutes is made available on the Company's website within 28 days of each meeting.

The minutes must be endorsed by the Independent Chairperson prior to them being distributed to members or placed on the Company's website. The draft minutes must then be considered and endorsed by the Committee at its following meeting. If the minutes are amended by the Committee, then the amended version must be placed on the Company's website.

Recording of meetings – by recording device, telephone or any other electronic device – is only permitted with the prior agreement of the Independent Chairperson and the Committee.

### **Conduct of Committee members**

Meetings of the Committee should follow good meeting practice.

The Committee may agree to adopt any particular set of standard meeting practices it wishes.

However, as a minimum, Committee members and alternates are expected to:

- regularly attend meetings;
- advise the Independent Chairperson in advance if they are unable to attend meetings;
- contribute to an atmosphere of open and constructive participation;
- abide by the directions of the Independent Chairperson;
- immediately advise the Independent Chairperson of any potential or actual conflicts of interest relating to matters under discussion;
- perform their functions impartially and in the best interests of the local and broader communities;<sup>2</sup>

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<sup>2</sup> It is recognised that Company representatives also have responsibilities to their employer.

- communicate concerns, interests and ideas openly and make reasons for any disagreement clear in a constructive and thoughtful manner;
- engage with other members of the Committee respectfully;
- maintain confidentiality where a request has been made and agreed to by the Independent Chairperson;
- put forward their views but also remain committed to open and shared dialogue; and
- not interrupt when another member is speaking.

Committee members and alternates are expected to sign a code of conduct agreement prior to joining the Committee. This code of conduct agreement should clearly identify the standard meeting practices of the committee and expected behaviors of Committee members (*refer to Toolkit*).

The Independent Chairperson should bring any breach of the above requirements or a code of conduct agreement to the attention of the persons concerned. This may take the form of verbal warnings given during the meeting (and formally recorded in the meeting minutes) or a written warning following the meeting.

Following three warnings, either verbal or written, the Independent Chairperson may ask the:

- Department (in the case of a community representative); or
- organisation which appointed them (in the case of a Company or local council representative or alternate representative)
- to replace the member or alternate representative.

The Independent Chairperson may similarly request the replacement of any member who fails to attend Committee meetings regularly.

### **Attendance by non-Committee members**

Invitations for non-Committee members to attend Committee meetings may only be made by the Independent Chairperson. Such invitations may be issued to:

- Company representatives providing specific project or technical advice;
- technical experts or consultants;
- State Government agencies; and/or
- members of the general public.

### **Pecuniary and other interests**

Members must declare to the Committee any pecuniary or other interest or benefit obtained which may prevent them from undertaking their role impartially and in the best interests of the local and broader communities.

A declaration should be made in respect of any pecuniary or other interest (including any payment, gift or benefit) intended or likely to influence, or that could be reasonably perceived by an impartial observer as intended, or likely to influence, the member to:

- act in a particular way (including making a particular decision);
- fail to act in a particular circumstance; and/or
- otherwise deviate from the proper exercise of their duty as a member.

Examples of pecuniary or other interests include holding shares in the Company, holding a private contract with the Company, holding voluntary acquisition rights under the Company's consent, receiving sitting fees or payments of personal expenses from the Company, or receiving mitigation measures from the Company.

These guidelines establish no requirement in respect of personal interests other than declaration. However, the Committee may determine that a personal interest is sufficient that a member should withdraw from discussion on a particular issue.

### **Committee training**

The Committee may seek funding or other assistance from the Company to gain the training or skills development necessary to achieve the purposes of the Committee.

It is recommended that new committee members in particular are provided with suitable induction training to help equip them for their new role.

Induction may include training or skills development in:

- facilitation or mediation (for the Independent Chairperson);
- conflict resolution (for either the Independent Chairperson or Committee members); and
- best practice environmental management and community relations (for either the Independent Chairperson or Committee members).

The Company should support any reasonable requests from the Committee for such training.

### **Committee funding and remuneration**

The Committee may seek annual or one-off funding from the Company for activities related to its purposes. It is up to the Company whether or not it agrees to such requests.

The Independent Chairperson may seek payment of sitting fees and/or personal expenses from the Company. It is at the discretion of the Company whether or not it agrees to such requests.

Community representatives are not eligible to receive sitting fees from the Company, but may seek reimbursement of personal expenses. Again, it is at the discretion of the Company whether or not it agrees to such requests.

If such fees or expenses are paid to either the Independent Chairperson or to community members, then the fact that a payment is being made (and not the actual amount) should be declared as a pecuniary interest and recorded in the minutes of the meeting in order that the broader community remains fully informed.

### **Dispute resolution**

Although the Committee is not a decision-making body, it is encouraged to discuss and seek agreement on all matters that may be the subject of substantial disagreement between its members. The Independent Chairperson carries a particular responsibility in dispute resolution, in respect of both disputes between members of the Committee and also between the Committee and the Company.

If a dispute between the Committee and the Company cannot be resolved by the Independent Chairperson, the Chairperson should seek the advice of the Department.

For example, advice may be sought from the Department in determining whether the Company is complying with any conditions of approval or whether the Company's response to community complaints has been appropriate.

## **Responsibilities of the Company**

The Company shall regularly provide the Committee with timely, accurate and comprehensive reports on the state of a project, including the development of the project, any operations, environmental performance and community relations.

The Company shall also provide the Committee with copies of:

- the project's conditions of approval, and other relevant documentation including management plans;
- monitoring results;
- annual review reports;
- audit reports (including audits required as a condition of consent);
- reports on community concerns or complaints and Company responses; and
- any other information specified by the Secretary.

Annual review reports, audit reports, monitoring reports and so on are to be distributed to Committee

members at the same time as they are submitted to agencies. These documents should be easy to understand and written in plain English.

The Company shall consult with the Committee prior to seeking approval for a modification to its conditions of consent, to change operational requirements or to expand its operations.

The Company shall respond in a timely fashion to any questions asked or advice given by the Committee about the Company's environmental performance or community relations.

The Company shall forward to each Committee member within 28 days of the Committee's meeting:

- a copy of the draft minutes (if they are recorded by the Company);
- the Company's response to any questions or advice by the Committee; and
- any information requested at the meeting by the Independent Chairperson.

The Company shall organise regular inspections of the project for the Committee. The frequency of inspections is to be determined by the Committee, but the inspections should usually be undertaken in conjunction with committee meetings.

In addition, the Company shall accommodate any reasonable request by the Independent Chairperson for the Committee to undertake additional inspections, provided at least 48 hours' notice has been given to the Company by the Independent Chairperson.

## Communication with the broader community

Committee members are encouraged to discuss issues and disseminate information about the project with the wider community, including special interest groups. If appropriate, the Independent Chairperson of the committee may also give briefings to community organisations such as the Chamber of Commerce, environmental or heritage organisations and P&C Committees.

The Committee may agree to release statements or other information to the media or to adopt other approaches to public dissemination of information. However, only the Independent Chairperson may speak publicly on behalf of the Committee. Individual Committee members may make comments to the media or in public forums on behalf of themselves or the stakeholders which they represent, but not on behalf of the Committee.

There is a presumption that all documents and other information considered by the Committee should be generally available to the community.

However, any Committee member may request that particular information (e.g. a declaration of a personal interest, site visit photos, or information which the Company considers to be commercial-in-confidence) be kept confidential by the Committee.

In the absence of full consensus amongst the Committee over whether such information should be kept confidential, the decision of the Independent Chairperson shall be final and binding on all members.

# *Toolkit for the Establishment of Community Consultative Committees*

# Community Consultative Committee Independent Chairperson Nomination Form

## Nomination details

I would like to nominate for the position of Independent Chairperson on the [INSERT PROJECT NAME] Community Consultative Committee.

I accept that selection and appointment as the Independent Chairperson for the [INSERT PROJECT NAME] Community Consultative Committee will be subject to my:

- ability to convene and manage stakeholder committees in an independent manner;
- experience in community relations, facilitation, mediation or public advocacy; and
- understanding of the development and awareness of local issues.

*Please attach a supporting letter that clearly demonstrates how you meet the above criteria.*

## Signed declaration

If appointed to the Committee, I accept that I will be asked to declare any pecuniary or other interests or benefits which may be perceived as preventing me from carrying out my role on the Committee impartially and in the best interests of the local and broader community.

I also understand that by completing this nomination:

- I have demonstrated that I meet the above criteria for selection to the Committee;
- I agree to signing a Code of Conduct Agreement and displaying the expected standard of behaviour;
- I agree to and understand the responsibilities of being the Independent Chairperson of the [INSERT PROJECT NAME] Community Consultative Committee; and
- I understand that this position is a voluntary position with no entitlement to remuneration or other benefit.

Name \_\_\_\_\_

Contact details \_\_\_\_\_

Address \_\_\_\_\_

Organisation/role (if you are applying as a representative of an organisation)  
\_\_\_\_\_

Signature and date \_\_\_\_\_

# Community Consultative Committee Advice on Advertising for Community Representatives

Community Consultative Committees are an important opportunity for Companies to interact with community members affected by State significant projects.

These Committees provide a structured and well-managed forum for open discussion between Company representatives, the community, local councils and other key stakeholders about issues directly relating to project management, environmental performance and community relations.

Each Committee comprises an Independent Chairperson, two to three Company representatives, three to five representatives of the local community, and a representative from the local council.

The Secretary of the Department will appoint the Independent Chairperson as well as the Community members of the Committee.

Appointing committee members with a genuine interest in representing the broader community is vital. Community representatives will be selected to represent those directly affected by the development – for example, neighbors – as well as broader representation from the local area.

When advertising for Committee members, the Company should place at least two advertisements in a local media publication (i.e. local newspaper). The Company may also consider advertising in one or more of the following avenues:

- local businesses;
- community or sporting centers; and
- local council websites.

The advertising period must be long enough to allow interested community members reasonable opportunity to make an application. A four-week advertising period is recommended to allow the community time to view the information and for individuals to apply.

A sample advertisement is provided below as a guide to the type of information that could be included in the advertisement. Selection criteria should be clearly referred to in the advertisement:

## **NOMINATIONS OPEN FOR APPOINTMENT OF COMMUNITY CONSULTATIVE COMMITTEE MEMBERS [INSERT PROJECT NAME]**

### ***Want to contribute to your community?***

Many State significant projects in NSW are required to establish a Community Consultative Committee, with at least three members representing the local community.

These Committees provide an opportunity for open discussion between project staff, the community, local councils and others about the management of State significant projects, including environmental performance and community relations.

Your role as a Committee member would be voluntary, but the rewards of giving something back to the community are many.

**Selection criteria:** We are looking for a good mix of people who live locally and have a variety of skills to join our new [INSERT PROJECT NAME] **Community Consultative Committee**. You will be expected to contribute constructively to Committee discussions, attend around four meetings a year, and have the capacity to act as a conduit for information about [INSERT PROJECT NAME] between the Committee and the broader community.

If you would like to apply, contact [INSERT DETAILS] at [INSERT CONTACT DETAILS] for more information OR download a copy of the nomination form at [INSERT DPE DETAILS].

**Applications must be lodged by [INSERT DATE] and sent to the Independent Chairperson of the Community Consultative Committee [INSERT NAME AND CONTACT DETAILS OF INDEPENDENT CHAIRPERSON].**

# Community Consultative Committee Community Representative Nomination Form

## Nomination details

I would like to nominate for the position of community / local council / Company representative (please circle as appropriate) on the [INSERT PROJECT NAME] Community Consultative Committee.

I accept that selection and appointment of community representatives for the [INSERT PROJECT NAME] Community Consultative Committee will be subject to my:

- demonstrated willingness to contribute constructively to discussion;
- ability to represent the local community and/or local stakeholder groups;
- ability to provide feedback to the local community and stakeholder groups; and
- current residency of the local area and/or awareness of local and other relevant issues.

*Please attach a supporting letter that clearly demonstrates how you meet the above criteria.*

## Signed declaration

If appointed to the Committee, I accept that I will be asked to declare any pecuniary or other interests or benefits which may be perceived as preventing me from carrying out my role on the Committee impartially and in the best interests of the local and broader community.

I also understand that by completing this nomination form:

- I have demonstrated that I meet the above criteria for selection to the Committee;
- I agree to signing a Code of Conduct Agreement and displaying the expected standard of behaviour;
- I agree to and understand the responsibilities of being a [INSERT PROJECT NAME] Community Consultative Committee representative; and
- I understand that this position is a voluntary position with no entitlement to remuneration or other benefit.

Name \_\_\_\_\_

Contact details \_\_\_\_\_

Address \_\_\_\_\_

Organisation/role (if you are applying as a representative of an organisation)  
\_\_\_\_\_

Signature and date \_\_\_\_\_

This signed nomination form and supporting letter must be sent directly to the Community Consultative Committee Independent Chairperson and not to the Department of Planning and Environment. The Independent Chairperson's details can be found on the advertisement calling for nominations.

# Community Consultative Committee Code of Conduct Agreement

Congratulations on your appointment to the [INSERT PROJECT NAME] Community Consultative Committee. This form must be signed and returned to the Independent Chairperson of your Committee before your appointment can be activated.

All appointed members have a responsibility to understand their duties and responsibilities and execute the committee's purpose without exceeding the authority of their position.

As a condition of engagement, independent chairs and members of Community Consultative Committee must agree to the general principles of conduct outlined below.

## Accepted behaviour

As a member of the [INSERT PROJECT NAME] Community Consultative Committee, I understand I will be expected to:

- regularly attend Committee meetings, at dates and times set by the Committee's Independent Chairperson;
- advise the Independent Chairperson in advance if I am unable to attend meetings;
- contribute to an atmosphere of open and constructive participation;
- abide by the directions of the Independent Chairperson;
- immediately advise the Independent Chairperson during meetings of any potential or actual conflict of interest relating to matters under discussion;
- perform in the best interests of the local and broader communities;
- communicate concerns, interests and ideas openly and make reasons for any disagreement clear in a constructive and thoughtful manner;
- engage with other members of the Committee respectfully;
- maintain confidentiality where a specific request has been made and agreed to by the Independent Chairperson;
- put forward views but also remain committed to open and shared dialogue; and
- not interrupt when another member is speaking.

## Signed declaration

If appointed to the Committee, I accept that I will be expected to abide by the standards set out in the code of conduct.

Name \_\_\_\_\_

Contact details \_\_\_\_\_

Address \_\_\_\_\_

Organisation/role (if you are applying as a representative of an organisation)

\_\_\_\_\_

Signature and date \_\_\_\_\_

This signed nomination form and supporting letter must be sent direct to the Community Consultative Committee Independent Chairperson and not to the Department of Planning and Environment. The Independent Chairperson's details can be found on the advertisement calling for nominations.

# Community Consultative Committee Declaration of Pecuniary and Non-Pecuniary Interests

Congratulations on your appointment as a community representative to the [INSERT PROJECT NAME] **Community Consultative Committee**. This form must be signed and returned to the Independent Chairperson of your Committee before your appointment can be activated.

## About This Form

This Declaration is designed to protect the integrity of the [INSERT PROJECT NAME] **Community Consultative Committee** and to protect the reputation of the Committee and its members.

Examples of pecuniary interest may include but are not limited to:

- holding shares in the Company;<sup>3</sup>
- holding a private contract with the Company;
- holding voluntary acquisition rights under the Company's consent;
- already receiving sitting fees or payments of personal expenses from the Company; and/or
- receiving mitigation measures from the Company.

A **pecuniary interest** is an interest a person has in a matter because of a reasonable likelihood or expectation of appreciable financial gain or loss to the person. Money does not have to change hands for there to be a pecuniary interest.

A **non-pecuniary interest** is a private or personal interest a person has that does not amount to a pecuniary interest but that may arise from family or personal relationships, or involvement in community, social or other cultural groups that may include an interest of a financial nature.

## A No pecuniary or non-pecuniary interest to declare

As a new member of the [INSERT DEVELOPMENT NAME] **Community Consultative Committee** I declare that there is no conflict of interest that may prevent me from carrying out my role on the [INSERT PROJECT NAME] **Community Consultative Committee** impartially and in the best interests of the local and broader community.

However, in the course of Committee meetings or activities, including site visits, I will disclose any interests in a transaction or decision where there may be a pecuniary or non-pecuniary interest.

After such a disclosure, I understand I may be asked by the Independent Chairperson of the Committee to withdraw from discussion about or voting on a particular issue.

Any such disclosure and the subsequent actions taken will be noted in the meeting minutes.

Name \_\_\_\_\_  
Signature \_\_\_\_\_  
Date \_\_\_\_\_

<sup>3</sup> The term Company meaning the holder of the development consent or its associated entities.

## B Pecuniary or non-pecuniary interest to declare

As a member of the [INSERT PROJECT NAME] Community Consultative Committee I declare:  
Tick as appropriate

Pecuniary interest. Please provide details:

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Non-pecuniary interest. *Please provide details:*

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As well as declaring the above, in the course of Committee meetings or activities, including site visits, I will disclose any interests in a transaction or decision where there may be a pecuniary or non-pecuniary interest.

I understand I may be asked by the Independent Chairperson of the Committee to withdraw from discussion about or voting on particular issues.

Any such disclosure and the subsequent actions taken will be noted in the meeting minutes.

Name

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Signature

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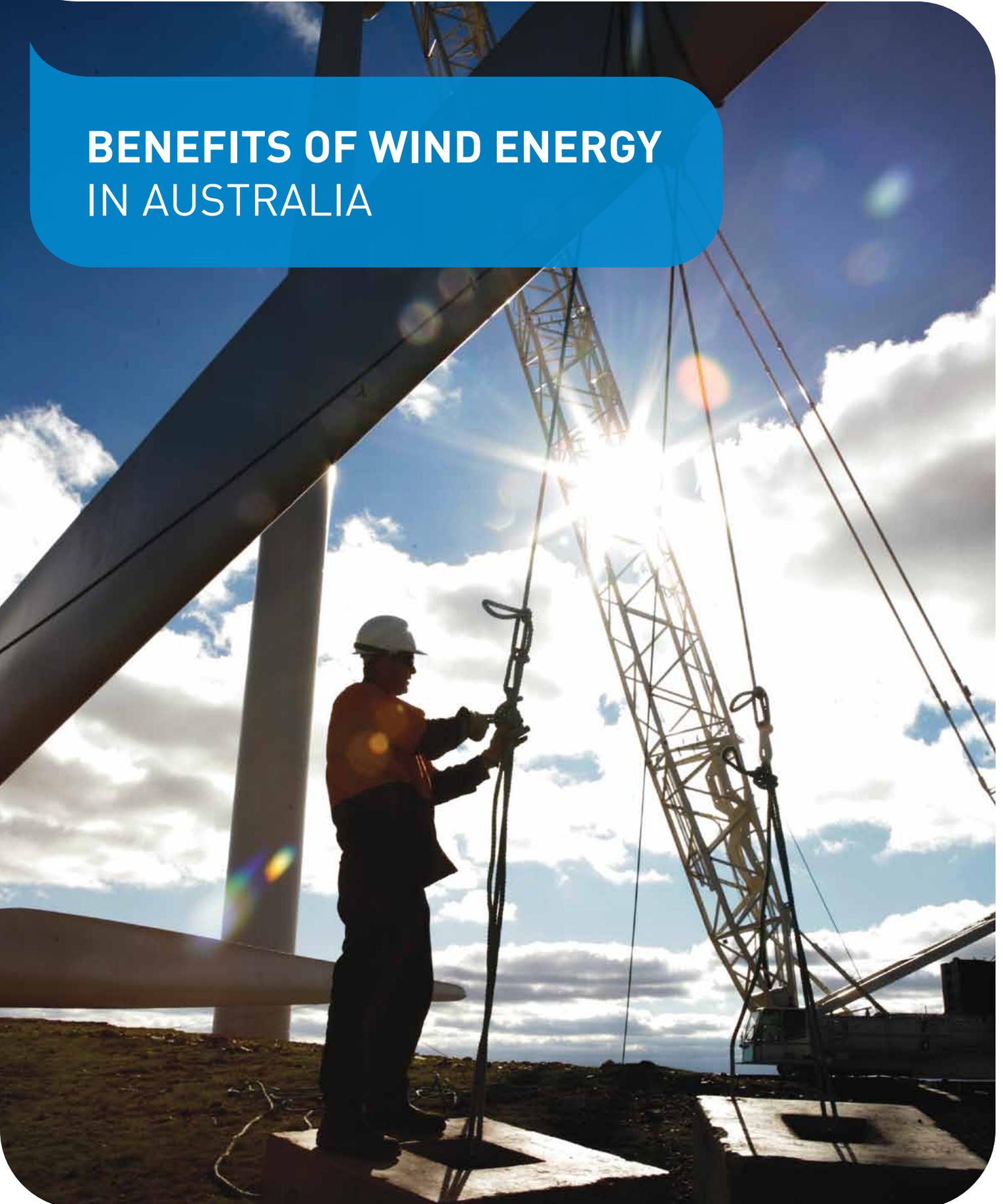
Date

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Clean Energy Council

# BENEFITS OF WIND ENERGY IN AUSTRALIA



visit [cleanenergycouncil.org.au](http://cleanenergycouncil.org.au)

# ECONOMIC BENEFITS OF WIND IN AUSTRALIA

The Clean Energy Council commissioned independent consultants SKM to produce a national and state-based snapshot on wind farm investment, jobs and carbon abatement. SKM looked at existing wind farm financial data and interviewed four companies with experience in numerous wind farm projects. The report presents a breakdown of investment during the construction and operations phases of a major wind farm, collated from actual data provided by developers, contractors, advisers and consultants.

## INVESTMENT

- Total local capital investment in Australian wind farms: \$4.25 billion (of a total \$7 billion).
- Potential further local investment in proposed wind farms: some \$17.8 billion (of a total \$29.6 billion).

Typical project components that result in Australian investment include wind turbine towers, civil and electrical works, design and development, construction, and of course staff.



## LOCAL INVESTMENT

The SKM report found that a typical 50 megawatt (MW) wind farm:

- Has an estimated average construction workforce of 48 people with each worker spending \$25,000 per year in the local area. This equates to some \$1.2 million per year flowing into hotels, shops, restaurants, and other local service providers.
- Employs around five staff for operations and maintenance, equating to an ongoing local annual influx of \$125,000.
- Provides up to \$250,000 annually in payments to farmers, a proportion of which flows into the local community.
- Provides a community contribution of up to some \$80,000 per year for the life of the project.

## JOBS

Wind farms result in direct and indirect jobs in the local region, the state and nationally.

### CONSTRUCTION JOBS (ONE-YEAR, FULL-TIME EQUIVALENT) PER 50 MW WIND FARM

	LOCAL / REGIONAL	STATE	AUSTRALIA
DIRECT EMPLOYMENT	48	147	238
TOTAL EMPLOYMENT INCLUDING INDIRECT JOBS	160	504	795

### OPERATIONS JOBS (ONGOING FULL-TIME EQUIVALENT) PER 50 MW WIND FARM

	LOCAL / REGIONAL	STATE	AUSTRALIA
DIRECT EMPLOYMENT	5	7	16
TOTAL EMPLOYMENT INCLUDING INDIRECT JOBS	12	19	44

# BENEFITS OF WIND FARMS IN REGIONAL COMMUNITIES

## BRIAN AND MARCIA OSBORNE

*Landholders at Capital Wind Farm, NSW*

### BACKGROUND:

Brian and Marcia are landholders for the Capital Wind Farm at Bungendore – they have 27 turbines on their property. The closest turbine is 900 metres from their home. The property has been in the family since 1866.

### BENEFITS:

“Income from the wind farm has enabled us to reduce our stocking rates and take better care of our paddocks. We’ve spent around \$100,000 on erosion problems and planted thousands of trees.

“This change has been accompanied by an increase in black wallaby, parrots and eagles – none of which seem affected by the adjacent turbines.

“I’m always surprised when people ask if our livestock mind the wind turbines. Our maiden Merino wool last year was some of the best wool we’ve ever had. Our classer said it was the best we had ever shown him and right amongst the best he had ever seen. Their upbringing was almost exclusively in the paddocks beneath the wind towers.”



*“The roads put in by the wind farm developer give us much better access to our property which has improved our stock management practices and bushfire access.”*

## SCOTT MARTIN AND DEB CURTIS

*Business owners of  
Cape Bridgewater Café, Vic*

### BACKGROUND:

Scott and Deb have owned the local café in Cape Bridgewater for the past three-and-a-half years – from about a year after the Cape Bridgewater wind farm was built. This is the first time they have owned a café and they bought it after doing a Great Ocean Road trip from Adelaide.

It is a seven-days-a-week café with increased daily hours during summer.

### BENEFITS:

“We get a lot of people asking about the wind farm.

“The wind company donated \$80,000 towards a Sustainable Community Fund and we catered for the function.

“We benefit from the tradesmen and maintenance team and from company functions.”

“A lot of tourists are interested in wind farms – people are interested in wind energy.

“We have formed friendships with the maintenance team – they are even part of our footy tipping competition.

*“It has brought a community to our community.”*



# BENEFITS OF WIND FARMS IN REGIONAL COMMUNITIES

## BRIAN AND JILL WILSON

*Landholders at Clements Gap Wind Farm, SA*

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### BACKGROUND:

Brian and Jill own 3500 acres. The property has been in the family since 1872 (they are fifth generation farmers) with an emphasis on crops and sheep. They have three children and their closest turbine is 1km from their house.

The local area experienced an unprecedented drought in 2006/07 which all of the local farmers are still recovering from.

### BENEFITS:

“This is the first time we have had another source of income not dependent on rainfall. Turbines have helped us to drought-proof the farm.

“The road tracks are also an asset both as fire breaks and giving us greater access to all parts of our property.

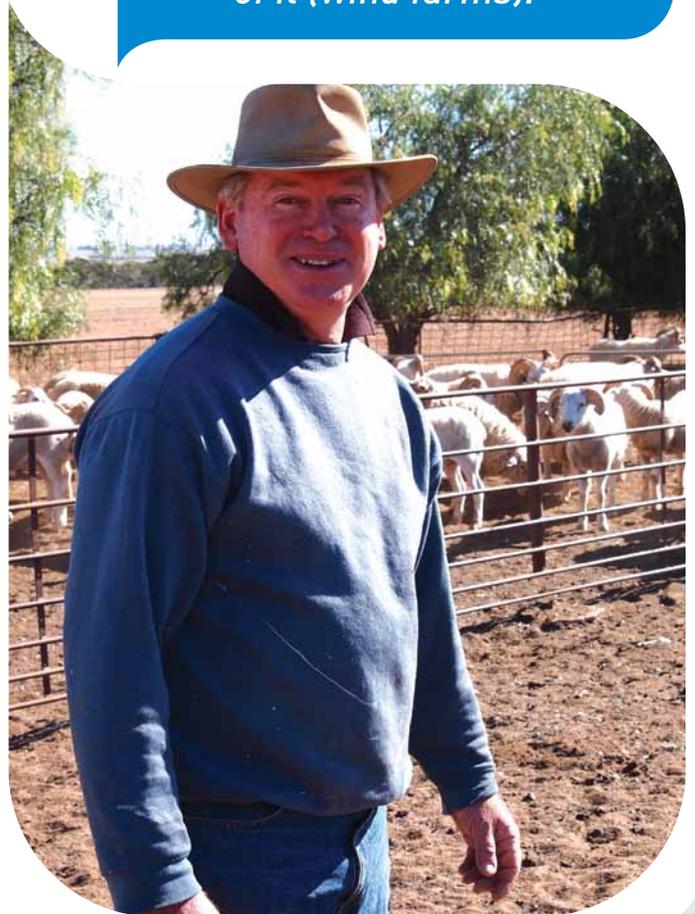
“It is a real benefit having the workers around, an extra set of eyes. They notify us if there is an injured animal, damaged fence or an open gate.

“More noise comes out of the trees than the turbines.

“The hills are as they have always been and the sheep love the shade of the turbines during the hot summer months.

“It is a windy place, we need power, otherwise it is a wasted resource.”

*“I can't see the downside of it (wind farms).”*



## STEVE MACKINTOSH

*Worker at Capital Wind Farm, NSW*

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Steve has been working at Capital Wind Farm for one-and-a-half years. He has been a local of Bungendore for the past 30 years. He is pleased to be working for the wind farm because it means he has the chance to work locally.

*“The job means I stay locally.”*

“I also have a chance to work on other wind farms and there is loads of training in this industry.”

# BENEFITS OF WIND FARMS IN REGIONAL COMMUNITIES

## SARAH AND PETER SHARP

*Landholders at Cape Nelson South, Vic*

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### BACKGROUND:

Sarah and Peter have lived in southwest Victoria for the past 11 years. Sarah was born locally. They manage 200 hectares with 5000 cattle on the land. The couple have four children aged 22, 20, 16 and 14.



### BENEFITS:

“We appreciate the diversity of income as well as having a keen interest in renewable energy.

“The wind farm opened up a door to vegetation offset – existing scrub is now protected, conserved for the future.

“The wind company helps to fund the Landcare Group which benefits the local community.

***“In a funny way the wind farm has preserved the coastline because it can’t be sub-divided.”***



## STUART NICOLSON

*Lead Service Technician at  
Clements Gap Wind Farm, SA*

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### BACKGROUND:

Stuart (Stuey) has worked at the Clements Gap Wind Farm for the past three-and-a-half years – almost since the commencement of the project. He previously worked on Hallett and Snowtown wind farms – all up about six years. Stuey has a heavy vehicle diesel mechanic background. He has lived on a property at Narridy, between Crystal Brook and Gulnare, all his life. He met his wife at Crystal Brook and they have three children.

### BENEFITS:

“Employment and being able to stay locally. I have had lots of training since working on wind farms and have met some very interesting people from all over the world.

***“I’m doing something worthwhile.”***



Shaun Blackie, worker at  
Codrington Wind Farm, Victoria



Ben Mumford lives next door  
to Clements Gap Wind Farm, SA

VIEW THIS DOCUMENT  
AND THE FULL REPORT AT  
[cleanenergycouncil.org.au](http://cleanenergycouncil.org.au)

# WIND ENERGY – THE FACTS

## WIND FARMS AND HEALTH

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There are nearly 250,000 wind turbines across sites all over the world – many of them close to people’s houses.

Reviews conducted by leading health and research organisations from all over the world, including Health Canada, the Australian Medical Association and Australia’s National Health and Medical Research Council, have found no direct link between wind farms and health effects.

Opponents of wind farms have claimed that ‘infrasound’, or sound that is too low-frequency for humans to hear, can cause negative health effects. However, there have been multiple scientific, thorough, peer-reviewed studies on wind farm noise that have found that infrasound from wind farms is not a problem.

### >> STUDIES FROM GOVERNMENT HEALTH AND ENVIRONMENT AUTHORITIES

#### THE NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL

The top Australian authority on health issues, the National Health and Medical Research Council (NHMRC), conducted a review into wind farms and potential health issues in 2009, and is currently undertaking a more detailed review of the evidence<sup>1</sup>. A 2010 NHMRC report concluded:

**“This review of the available evidence, including journal articles, surveys, literature reviews and government reports, supports the statement that: There are no direct pathological effects from wind farms and that any potential impact on humans can be minimised by following existing planning guidelines.”**

The NHMRC also released a draft information paper on wind farms and human health<sup>2</sup> for public consultation in early 2014. The paper summarised the evidence on whether wind farms cause health effects in humans, and provided an overview of the process by which the evidence was identified, critically appraised and interpreted by the reference group.

That information paper also found that: **“There is no reliable or consistent evidence that wind farms directly cause adverse health effects in humans.”**

#### HEALTH CANADA

Health Canada, Canada’s national health organisation, released preliminary results of a study into the effect of wind farms on human health in 2014<sup>3</sup>. The study was initiated in 2012 specifically to gather new data on wind farms and health. The study considered physical health measures that assessed stress levels using hair cortisol, blood pressure and resting heart rate, as well as measures of sleep quality. More than 4000 hours of wind turbine noise measurements were collected and a total of 1238 households participated.

No evidence was found to support a link between exposure to wind turbine noise and any of the self-reported illnesses. Additionally, the study’s results did not support a link between wind turbine noise and stress, or sleep quality (self-reported or measured). However, an association was found between increased levels of wind turbine noise and individuals reporting to be annoyed.

- 1 National Health and Medical Research Council, 2014, Wind Farms and human health. Available at <https://www.nhmrc.gov.au/your-health/wind-farms-and-human-health>
  - 2 National Health and Medical Research Council, 2014, NHMRC Draft Information Paper: Evidence on Wind Farms and Human Health Available [https://consultations.nhmrc.gov.au/public\\_consultations/wind\\_farms](https://consultations.nhmrc.gov.au/public_consultations/wind_farms)
  - 3 Health Canada 2014, Wind Turbine Noise and Health Study: Summary of Results. Available at <http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php>
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# WIND ENERGY - THE FACTS

## WIND FARMS AND HEALTH

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### NEW SOUTH WALES HEALTH DEPARTMENT

In 2012, the NSW Health Department provided written advice to the NSW Government that stated existing studies on wind farms and health issues had been examined and no known causal link could be established.

NSW Health officials stated that fears that wind turbines make people sick are 'not scientifically valid' and that the arguments mounted by anti-wind farm campaigners are unconvincing. The officials wrote that there was no evidence for 'wind turbine syndrome', a collection of ailments including sleeplessness, headaches and high blood pressure that some people believe are caused by the noise of spinning blades.

### VICTORIAN DEPARTMENT OF HEALTH

The Victorian Department of Health released two booklets on wind farms, sound and health in May 2013<sup>4</sup>. One focused on technical information about the nature of sound and the other contained community information.

The community information booklet concluded that: **"The evidence indicates that sound can only affect health at sound levels that are loud enough to be easily audible. This means that if you cannot hear a sound, there is no known way that it can affect health. This is true regardless of the frequency of the sound."**

### SOUTH AUSTRALIAN EPA INFRASOUND STUDY

A report released in January 2013 by the South Australian Environment Protection Authority (EPA)<sup>5</sup> found that the level of infrasound from wind turbines is insignificant and no different to any other source of noise, and that the worst contributors to household infrasound are air-conditioners, traffic and noise generated by people.

The study included several houses in rural and urban areas, houses both adjacent to a wind farm and away from turbines, and measured the levels of infrasound with the wind farms operating and also switched off.

There were no noticeable differences in the levels of infrasound under all these different conditions. In fact, the lowest levels of infrasound were recorded at one of the houses closest to a wind farm, whereas the highest levels were found in an urban office building.

The EPA's study concluded that the level of infrasound at houses near wind turbines was no greater than in other urban and rural environments, and stated that: **"The contribution of wind turbines to the measured infrasound levels is insignificant in comparison with the background level of infrasound in the environment."**

## >> OTHER HEALTH AUTHORITIES

### THE AUSTRALIAN MEDICAL ASSOCIATION

The Australian Medical Association put out a position statement on Wind Farms and Health in 2014<sup>6</sup>.

The statement said: **"The available Australian and international evidence does not support the view that the infrasound or low frequency sound generated by wind farms, as they are currently regulated in Australia, causes adverse health effects on populations residing in their vicinity. The infrasound and low frequency sound generated by modern wind farms in Australia is well below the level where known health effects occur, and there is no accepted physiological mechanism where sub-audible infrasound could cause health effects."**

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4 Department of Health, Victoria, 2013, Windfarms. Available <http://www.health.vic.gov.au/environment/windfarms.htm>

5 EPA South Australia, 2013, Wind farms. Available [http://www.epa.sa.gov.au/environmental\\_info/noise/wind\\_farms](http://www.epa.sa.gov.au/environmental_info/noise/wind_farms)

6 Australian Medical Association, 2014, Wind farms and health. Available <https://ama.com.au/position-statement/wind-farms-and-health-2014>

# WIND ENERGY - THE FACTS

## WIND FARMS AND HEALTH

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### >> ACADEMIC RESEARCH

#### MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

MIT released a critical review of the scientific literature in December 2014<sup>7</sup>. The review took into consideration health effects such as stress, annoyance and sleep disturbance, as well as other effects that have been raised in association with living close to wind turbines.

The study found that: **“No clear or consistent association is seen between noise from wind turbines and any reported disease or other indicator of harm to human health.”**

The report concluded that living in close proximity to wind farms does not result in the worsening of, and might even improve, the quality of life in that particular region.

#### UNIVERSITY OF AUCKLAND INFRASOUND STUDY ON SYMPTOM EXPECTATION

A study from the University of Auckland published by the American Psychological Association in March 2013<sup>8</sup> considered the idea that health complaints from wind farms could be caused by an increase in discussion and awareness of health risk, rather than actual infrasound. The studies tested whether exposure to the anti-wind farm health effects campaign could create a ‘symptom expectation’ and then actual symptoms in healthy volunteers.

The study exposed 60 participants to ten minutes of infrasound and ten minutes of sham infrasound. Prior to exposure, half of the volunteers were given information that indicated wind farms could cause negative health effects, and the other half were given information on the scientific position that wind farm infrasound does not affect human health.

Before and during the sound exposure, both groups reported their health symptoms. Results showed that the group that had viewed information on negative health effects and therefore expected to feel ill did experience symptoms of illness, while the other group did not.

The study concluded that: **“Healthy volunteers, when given information about the expected physiological effect of infrasound, reported symptoms that aligned with that information, during exposure to both infrasound and sham infrasound.”**

#### UNIVERSITY OF SYDNEY STUDY ON WIND FARM NOISE COMPLAINTS

A 2013 study from University of Sydney Professor of Public Health Simon Chapman examined all complaints made about wind farm noise or health problems at 49 Australian wind farms<sup>9</sup>.

The study found that despite there being 32,677 people who lived within 5 kilometres of a wind farm, just 120 people – or one in 272 – had ever made a formal complaint, appeared in a news report or sent a complaining submission to government. The study also found that some complainants took many years to voice their first complaint, when wind farm opponents regularly warn that the ill effects can be almost instant.

This work supported the findings from the University of Auckland study that anxiety and fear about wind turbines spread by anti-wind farm groups can cause people who hear the frightening information to develop symptoms.

This means that discussion within communities about the alleged health effects of wind farms may trigger the very symptoms about which residents are concerned. If this is the case, media coverage of the wind farm debate must be balanced, so that undue emphasis is not placed on purported health risk.

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7 Journal of Occupational and Environmental Medicine, 2014, Wind Turbines and Health: A Critical Review of the Scientific Literature Available [http://journals.lww.com/joem/Abstract/2014/11000/Wind\\_Turbines\\_and\\_Health\\_\\_A\\_Critical\\_Review\\_of\\_the.9.aspx](http://journals.lww.com/joem/Abstract/2014/11000/Wind_Turbines_and_Health__A_Critical_Review_of_the.9.aspx)

8 American Psychological Association, 2013, Can expectations produce symptoms from infrasound associated with wind turbines? Available <http://psycnet.apa.org/psycinfo/2013-07740-001/>

9 University of Sydney, 2013, Spatio-temporal differences in the history of health and noise complaints about Australian wind farms: evidence for the psychogenic “communicated disease” hypothesis. Available <http://ses.library.usyd.edu.au/handle/2123/8977>

# WIND ENERGY - THE FACTS

## WIND FARMS AND HEALTH

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### >> INQUIRIES AND COURT CASES

#### **STONY GAP WIND FARM IN THE ENVIRONMENT, RESOURCES AND DEVELOPMENT COURT OF SOUTH AUSTRALIA**

After Goyder Council in South Australia chose to refuse planning permission for the Stony Gap wind farm without grounds, the case went to court in late 2014. During the case, the court heard evidence from Sarah Laurie of the Waubra Foundation and acoustician Steven Cooper, and found both to be lacking. The court then overturned the decision, approving the project almost three years after the development application was lodged.

The decision was very clear in its summary judgement of the initial refusal, finding that: **“There is no basis for the refusal of development plan consent to the proposed development on the grounds of health effects.”**

#### **FEDERAL SENATE COMMITTEE INQUIRY**

The Federal Senate Committee Inquiry into a bill calling for regulation of excessive noise from wind farms investigated health issues in late 2012.

The final report<sup>10</sup> contained the following findings:

**“The number of health-related complaints about wind farms is small in proportion to the number of people living near these facilities. The numbers also vary greatly from one facility to the next, for reasons not apparently related to the number of residents in the area.”**

One of the most interesting pieces of information provided to the committee was a research paper that has since been accepted for publication in the well-regarded journal Health Psychology in early 2013. This paper found that the effects of infrasound can be felt by people not exposed to infrasound but who expected that it would make them feel unwell – a hypothesis that has since been tested by researchers at the University of Auckland (more details above).

The relevant extracts from the Senate committee’s final report are below:

**“Late in the inquiry process, the committee was provided with recent research, peer-reviewed and accepted for publication by the leading journal Health Psychology, but not yet released. The research comprises a controlled double blind study, in which subjects were exposed to infrasound and sham infrasound... Conclusion: Healthy volunteers, when given information about the expected physiological effect of infrasound, reported symptoms which aligned with that information, during exposure to both infrasound and sham infrasound.”**

Overall, the Senate committee found that wind farms do not create health problems:

**“The committee concludes that, while it is possible that the human body may detect infrasound in several ways, there is no evidence to suggest that inaudible infrasound (either from wind turbines or other sources) is creating health problems. In contrast, there is an established literature confirming the existence of psychogenic, or nocebo, effects in general, and at least one study suggesting they may be responsible for symptoms in some wind turbine cases.”**

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10 Environment and Communications Legislation Committee report [http://www.qph.gov.au/Parliamentary\\_Business/Committees/Senate/Environment\\_and\\_Communications/Completed%20inquiries/2010-13/renewableenergy2012/report/~/\\_media/wopapub/senate/committee/ec\\_ctte/completed\\_inquiries/2010-13/renewable\\_energy\\_2012/report/report.ashx](http://www.qph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Completed%20inquiries/2010-13/renewableenergy2012/report/~/_media/wopapub/senate/committee/ec_ctte/completed_inquiries/2010-13/renewable_energy_2012/report/report.ashx)

## WIND FARMS AND PROPERTY PRICES

Wind farms do not negatively impact property prices. Over the past decade, multiple major studies by respected and independent organisations in countries across the world have failed to find any correlation between wind turbines and declining property values. In fact, some of these studies found positive impacts.

The value of properties goes up and down for a wide range of reasons. Supply and demand, proximity to amenities and infrastructure, housing affordability and the desirability of the location can all have an impact. If someone is having trouble selling their property and it is near a wind turbine, there could be many other reasons to explain why this is the case.

### *Property prices in Australia*

The Pyrenees Shire Council in Western Victoria is home to one of Australia's largest wind farms, Waubra. A land evaluation report presented to council in August 2012 showed that from 2010 to 2012, residential properties in the Waubra area increased in value by 10.1 per cent.<sup>1</sup> This was the largest increase of any town in the shire.

A separate study by the NSW Department of Lands in the second half of 2009 looked at properties located near eight wind farms and found no evidence that wind turbines caused property values to drop. The report found that wind farms "do not appear to have negatively affected property values in most cases". The report also found that "no reductions in sale price were evident for rural properties or residential properties located in nearby townships with views of the wind farm".<sup>2</sup>

A 2006 study by Henderson and Horning Property Consultants looked at wind farms and property values over a 15-year period. The study assessed 78 property sales around the operating Crookwell wind farm between 1990 and 2006, and found no reductions in property values.

The study concluded that:

- there was no measurable reduction in values of properties that have a line of sight to the Crookwell 1 wind farm
- soils, improvements and access to services are more important drivers of property values than visual impacts.

A report on community acceptance of rural wind farms by the CSIRO's Science into Society found that rural landowners with wind farms on their properties stood to gain from benefits such as extra rental income that can allow farmers to remain on their land after retirement. In the report, landowners also said wind farms helped to conserve biodiversity and prevent subdividing of land, and that "communities benefit from a local wind farm through increased local business, community funds and local government revenue".<sup>3</sup>

<sup>1</sup> Pyrenees Shire Council Meeting minutes  
[http://www.pyrenees.vic.gov.au/Your\\_Council/Councillors/Council\\_Meetings/21082012](http://www.pyrenees.vic.gov.au/Your_Council/Councillors/Council_Meetings/21082012)

<sup>2</sup> NSW Department of Lands report [http://www.lpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0018/117621/toL51WT8.pdf](http://www.lpi.nsw.gov.au/__data/assets/pdf_file/0018/117621/toL51WT8.pdf)

<sup>3</sup> CSIRO report <http://www.csiro.au/Organisation-Structure/Flagships/Energy-Transformed-Flagship/Exploring-community-acceptance-of-rural-wind-farms-in-Australia.aspx>

## *Property prices in Australia continued*

One landowner said having a wind farm on their property could provide “a drought-proofing income stream for my property... Few farmers in this region could survive without off-farm income”.

Another said wind farms helped fund land protection: “[With] a bit of money to put turbines on my property – that won’t devalue my property – we’ll be able to run less animals and put less pressure on the land and look after it a whole lot better, get the biodiversity happening as it should – that’s a good outcome for me.”

## *International research*

The most comprehensive study so far conducted on this issue was a decade-long project by the Lawrence Berkeley National Research Laboratory in 2009 in the United States. Researchers collected data on almost 7500 sales of single-family homes situated within 10 miles of a wind facility across nine different US states, and found no negative relationship between wind turbines and property values. The study found “neither the view of the wind facilities nor the distance of the home to those facilities is found to have any consistent, measurable, and statistically significant effect on home sales prices”.<sup>4</sup>

The University of New Hampshire’s *Impact of the Lempster Wind Power Project on Local Residential Property Values* from January 2012 found no evidence that the project had an impact on property values in the region. The study also said “this is consistent with the near unanimous findings of other studies—based their analysis on arms-length property sales transactions—that have found no conclusive evidence of wide spread, statistically significant changes in property values resulting from wind power projects”.<sup>5</sup>

The respected UK-based Royal Institute of Chartered Surveyors in combination with the Oxford Brookes University in 2007 found no correlation although they acknowledged limited input data. According to the research, “the view of the estate agents was that proximity to a wind farm simply was not an issue”.<sup>6</sup>

Two US studies have actually found that properties located near wind farms could experience an increase in value. A University of Illinois Masters in Applied Economics thesis published in 2010 looked at 2851 home sales from the past decade around the Twin Groves wind farm in Illinois. The study found that property values seemed to increase at a greater rate closer to the wind farm. This study also found a correlation between the fears prior to the actual construction of the wind energy project and a temporary reduction in property values.<sup>7</sup>

The 2003 Renewable Energy Policy project found that “although there is some variation in the three cases studied, the results point to the same conclusion: the statistical evidence does not support a contention that property values within the view shed of wind developments suffer or perform poorer than in a comparable region. For the great majority of projects in all three of the cases studied, the property values in the view shed actually go up faster than values in the comparable region”.<sup>8</sup>

<sup>4</sup> Lawrence Berkeley study, United States <http://eetd.lbl.gov/ea/ems/reports/lbnl-2829e.pdf>

<sup>5</sup> *Impact of the Lempster Wind Power Project on Local Residential Property Values*, January 2012 [http://antrim-wind.com/files/2012/05/14B\\_lempster\\_property\\_value\\_impacts\\_final-copy-copy.pdf](http://antrim-wind.com/files/2012/05/14B_lempster_property_value_impacts_final-copy-copy.pdf)

<sup>6</sup> Royal Institute of Chartered Surveyors and Oxford Brookes University, United Kingdom <http://www.st-andrews.ac.uk/media/estates/kenly-farm/images/RICS%20Property%20report.pdf>

<sup>7</sup> University of Illinois, United States <http://www.bape.gouv.qc.ca/sections/mandats/eole-monteregie/documents/DD2.pdf>

<sup>8</sup> Renewable Energy Policy Project, United States [http://www.repp.org/articles/static/1/binaries/wind\\_online\\_final.pdf](http://www.repp.org/articles/static/1/binaries/wind_online_final.pdf)

## DECOMMISSIONING WIND TURBINES

A wind farm is expected to have an operational life of approximately 20 to 25 years. After this time, the project owner will either decommission the site, restoring the area to its previous land use, or negotiate with landowners to upgrade the equipment and extend the wind farm's operational lifespan.

Decommissioning means that the wind turbines, site office and any other above ground infrastructure is removed from the site, and roads and foundation pads are covered and revegetated to return the ground to its former state.

Sometimes parts of the wind farm that continue to serve a functional purpose may be left behind, such as powerlines and other regular electricity infrastructure.

### *Who is responsible?*

Decommissioning the site is always the responsibility of the owner of the wind farm. Generally, landowner contracts contain clauses explicitly setting out the amount of time between the wind farm's end of life and the decommissioning, and the expectations around rehabilitating the site.

### *Decommissioning requirements*

The initial approval for a wind farm is likely to require that the developer has a comprehensive decommissioning and rehabilitation plan in place. This plan needs to address all significant aspects of the decommissioning process.

### *Case studies*

Only one wind farm in Australia has needed to be decommissioned to date. The Salmon Beach wind farm, the first wind farm in Australia, consisted of six 60 kilowatt turbines near Esperance in southern Western Australia. It operated from 1987 for nearly 15 years, and was eventually decommissioned due to the age of the turbines and the fact that much larger and more cost-effective units were available. The turbines were decommissioned by project owner Western Power, and one turbine remains proudly on display in Esperance as a historic marker of the birthplace of wind energy in Australia.

A small number of wind farms in the United States have been abandoned for extended periods, notably Kamaoa wind farm in South Point, Hawaii, and Tehachapi wind farm in Southern California. These examples are mentioned frequently by anti-wind groups in the United Kingdom, Australia, and other places. Kamaoa did stand in disrepair for several years however it was decommissioned by Apollo Energy, the project owner, in early 2012. Unfortunately there are still some abandoned wind turbines around the Tehachapi area.

Strict planning requirements in Australia mean that the US situation described above has not occurred here, and will not occur in the future. The wind industry agrees that it is always the responsibility of the wind farm owner to decommission obsolete turbines, and is committed to ensuring that an Australian wind farm is never abandoned.

# SIEMENS

> Home > Press Wind Power and Renewables

## Siemens publishes Environmental Product Declarations for wind turbines

Hamburg, 2014-Nov-26

- Detailed assessments of energy and CO<sub>2</sub> balance of Siemens wind turbines
- Energy payback time for one Siemens SWT-3.2-113 onshore wind turbine of 4.5 months
- Offshore wind power plant with 80 Siemens D6 wind turbines saves 45 million tons of CO<sub>2</sub>

Siemens Wind Power and Renewables has published four new Environmental Product Declaration (EPD) brochures, each representing one of the company's four product platforms, covering both geared and direct drive wind turbines for offshore and onshore projects. The figures are based on Life Cycle Assessments (LCAs) of four defined wind power projects: two offshore wind plants with 80 wind turbines, and two onshore wind projects with 20 wind turbines. The new brochures offer valuable figures of the environmental performance of Siemens' products.



During its estimated lifetime the plant with 80 D6 wind turbines saves 45,000,000 tons of CO<sub>2</sub>, which is equal to the amount of CO<sub>2</sub> absorbed by a forest with an area of 1,286 km<sup>2</sup> over 25 years.

Central to LCAs is the energy payback time calculation. This is the length of time the wind power plant has to operate in order to produce as much energy as it will consume during its entire lifecycle. In an onshore wind power plant with an average wind speed of 8.5 meters per second, the energy payback time of a Siemens SWT-3.2-113 wind turbine is 4.5 months. This figure is based on a 20-turbine project, including a 13 kilometer grid transmission connection, and all the efforts involved covering material use, manufacturing, installation, operation and maintenance as well as dismantling and end-of-lifetime treatment.

The offshore Life Cycle Assessment based on a project with 80 Siemens D6 wind turbines shows another interesting environmental performance: During its estimated lifetime, it produces 53 million megawatt hours and saves 45 million tons of CO<sub>2</sub>, which is equal to the amount of CO<sub>2</sub> absorbed by a forest with an area of 1,286 km<sup>2</sup> over 25 years. This figure corresponds to a CO<sub>2</sub> emission of only seven grams per kilowatt-hour (g/kWh) compared to the 865 g/kWh found with average global fossil power production.

"Environmental Product Declarations provide customers, developers, and authorities the requested transparency on the environmental performance of our products, and they help us to further develop our portfolio, thereby ensuring competitiveness," declares Markus Tacke, CEO of the Siemens Wind Power and Renewables Division. "I am convinced that this information will greatly benefit both our customers and our company as a whole."

The EPD brochures on the four Siemens Product Platforms (G2, D3, G4 and D6) are now available for download on [www.siemens.com/energy/wind/epd](http://www.siemens.com/energy/wind/epd).

For further information on Division Wind Power and Renewables, please see: [www.siemens.com/wind](http://www.siemens.com/wind)

**Siemens AG** (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. The company is active

## Response to Yass Landscape Guardians document dated May 2016

Claim	Response
<p>The potential destruction of our rural lifestyle and landscape:</p> <ol style="list-style-type: none"> <li>1. Many of us have invested life savings in purchasing properties to have the value and quality of these investment significantly threatened.</li> <li>2. No attempt in the planning of the turbine locations to honour the 2km setback provision as outlines in the NSW Government' Draft planning guidelines.</li> <li>3. No recognition of any potential "ill-health" effects on adjoining landowners and failure to adopt a "precautionary" principle as outlines in State WHS legislation.</li> <li>4. Voluntary relocation of proposed wind turbines as a consequence of "consultation" has been minimal to non-existent</li> </ol>	<ol style="list-style-type: none"> <li>1. There is no independent evidence that the value or quality of property investments is significantly threatened by a wind farm.</li> <li>2. The draft guidelines are not clear. There is no 2km setback provision in the guidelines. Residences within 2km must be the subject of particular attention in respect of potential impacts. The wind turbines approved have no non-involved residences within 2km. There is one non-involved residence just outside of 2km.</li> <li>3. There are no known "ill-health" effects on adjoining landowners. NSW Health, the AMA, the NHMRC all concur that there is no evidence of harm from living in proximity to a wind farm.</li> <li>4. A number of wind turbines were removed from the original 152 wind turbine proposal as a result of input from landowners. As there are no non-involved residences located within 2km of the approved wind turbines there are no reasons to relocate wind turbines.</li> </ol>
<p>A flawed, inequitable and abused NSW planning process:</p> <ol style="list-style-type: none"> <li>1. The YVWF has been rammed through the NSW planning process without the required consultation or any initial communication at all with numerous adjoining landowners and community members.</li> <li>2. The Landholder must advise his neighbour (about the wind farm) or risk legal prosecution if he or she wants to light a fire, poison a rabbit or fox or spray blackberries within 150m of an adjoining dwelling.</li> </ol>	<ol style="list-style-type: none"> <li>1. The planning process was difficult and frustrating for all parties including the community and the proponent</li> <li>2. We have no comment on landholder management requirements.</li> </ol>

Claim	Response
<p>3. A wind developer has no legal obligation to advise the adjoining landowners of their intention to construct over 130 turbines and High Voltage power lines adjoining the landowner's boundary.</p>	<p>3. A development with planning consent is a legitimate use of land. The planning process has public notification and exhibition requirements. The Yass Valley Wind Farm has been on public exhibition twice. Part of the role of the CCC is to discuss how best to communicate relevant information on the wind farm to the broader community. The proponent sends out newsletters to all residences located within 5 km of the wind farm and all individuals for whom they have an address and has updated addresses as advised by CCC members</p>
<p>Overwhelming local community objection:</p> <ol style="list-style-type: none"> <li>1. Polls taken show 70% of respondents against</li> <li>2. Yass Landscape Guardians meeting packed with supporters</li> <li>3. Proponent says the project was received well by the local community</li> </ol>	<ol style="list-style-type: none"> <li>1. The local poll was not independent or impartial. See the recent NSW government poll at <a href="http://www.environment.nsw.gov.au/communities/community-attitudes.htm">http://www.environment.nsw.gov.au/communities/community-attitudes.htm</a></li> <li>2. The Landscape Guardians meeting might reasonably be expected to be attended by opponents to wind farms in the area.</li> <li>3. Large infrastructure projects can and do have objections. The most recent section of Westconnex had 12,900 public submissions objecting and was approved. Were the local community opposed to the wind farm the department would have expected a larger number of objecting submissions. The public exhibition of: the EA - 14 objections; the Preferred Project - 8 objections.</li> </ol>
<p>Uncertainty about eventual build and ownership:</p> <ol style="list-style-type: none"> <li>1. Multiple wind farms approved in NSW and not built</li> <li>2. Conroy's Gap approved May 2007 and not yet constructed</li> <li>3. Proponent has not built a wind farm anywhere</li> <li>4. Proponent sells wind farm proposals to the highest bidder so adjoining landowners don't know who they will be dealing with.</li> </ol>	<ol style="list-style-type: none"> <li>1. Many projects or development assessments are approved and not built from small scale house renovations through to large scale infrastructure developments including mines. Investor certainty, changed outlook or risk profile, funding all play a part in a market economy.</li> <li>2. This is a fact as noted above.</li> <li>3. Epuron is not a construction company, it is a development company.</li> <li>4. At all times the owner of the wind farm will be known to the community. Epuron Projects owns Yass Valley Wind Farm Pty Ltd at this time.</li> </ol>
<p>Council rates and local jobs:</p> <ol style="list-style-type: none"> <li>1. That wind farms create local jobs is "smoke and mirrors" deception</li> </ol>	<ol style="list-style-type: none"> <li>1. Over 18 months of construction with road building, turbine base excavation, electrical works, transport, craneage, turbine supply and erection, fencing, revegetation and screening, IT, office works, accommodation, food and many other supplies local companies and individuals have options about applying for such work. See Goldwind media release re</li> </ol>

Claim	Response
<p>2. How many jobs were achieved in Crookwell, Gunning and Taralga?</p> <p>3. Only 12 approved turbines are located in the Yass Shire limiting the developer's contribution to the Yass Shire to \$30,000</p> <p>4. The proponent will not pay any Shire Rates</p> <p>5. How much damage to minor local roads, timber bridges and other government infrastructure will result from this project over time?</p>	<p>Gullen Range where over 70% of the local workers were local and more than \$12.3 million was spent on goods and services in the local region</p> <p>2. Crookwell – 1-2 part time Gunning – (31 WTGs) 9 permanent O&amp;M jobs Taralga – (51 WTGs) 9 permanent O&amp;M jobs (1 person lives in Taralga, the others live in Goulburn) Cullerin – 3 permanent O&amp;M</p> <p>3. 13 out of the 79 approved wind turbine locations are in Yass Shire with a maximum contribution of \$32,500. Consent conditions state: <i>The VPAs shall include provisions for the payment, collection, management and distribution of the contributions under the agreement, with a focus on funding community projects in the area surrounding the project site.</i> A further 45 turbines were originally proposed to be located in the Yass Valley Council LGA but were not approved. This would have provided an additional \$112,500 per year.</p> <p>4. If Wind Farms were required to pay rates in NSW they would. There is a community contribution fund of around \$200,000 for 79 wind turbines at 2.5MW (~200MW). In Victoria rates or other payments are made by negotiation based on \$900 per MW (indexed from 2004). This would be the equivalent of \$180,000 plus indexation which is similar.</p> <p>5. Damage to roads and infrastructure caused by the wind farm must be repaired by the wind farm.</p>
<p>The local community could end up paying higher rates to pay for damaged infrastructure whilst our property values decline as a consequence of this plague of wind turbines</p>	<p>All damage caused by the wind farm must be remedied by the wind farm. This is a consent condition. Property values are often influenced by economic activity in a region. Investment, construction, activity, local accommodation requirements and ongoing jobs are more likely to have a positive effect given the relationship of supply and demand to property values.</p>
<p><b>For further information please contact us:</b></p>	<p><b>Epuron:</b> <b>Andrew Wilson 02 8456 7406</b> <b>Donna Bolton 02 8456 7405</b> <b>www.epuron.com.au</b> <b>info@epuron.com.au</b></p>

## 2.2 Changes to Infrastructure Layout since November 2012

A number of changes to the infrastructure layout have been made since the exhibition of the Preferred Project Report (Nov 2012). These changes have been made in response to public and government submissions and comments on the project and minimise both the overall and localised environmental impacts of the project. Table 2-1 lists the changes.

*Table 2-1 Changes that minimise the environmental impact*

	<i>Change</i>	<i>Impact of change</i>	<i>Environmental impacts minimised</i>
<b>Marilba</b>			
1.	Deletion of wind turbines:		Yes
	<ul style="list-style-type: none"> <li>113 and associated access track and cabling (northern end)</li> </ul>	Reduced visual impact and reduced noise impact on new residence M42	
	<ul style="list-style-type: none"> <li>107, 108 &amp; 109 and associated access tracks and cabling (western side)</li> </ul>	Reduced visual impact and reduced noise impact on residence C25	
	<ul style="list-style-type: none"> <li>89, 90, 91, 93, 94, 95, 96, 97, 98, 99, and movement of wind turbine 83 into a location which reduces biodiversity impacts as a result</li> </ul>	Significant reduction in the potential for impacts to avifauna utilising treed areas adjacent to the removed wind turbines	
2.	Minor relocation of wind turbines:		Yes
	<ul style="list-style-type: none"> <li>110 and 144 (Refer response to NSW Trade &amp; Investment Crown Lands submission)</li> </ul>	Avoidance of blade overhang over Crown roads	
	<ul style="list-style-type: none"> <li>101, 102</li> </ul>	Reduced impacts to native vegetation	
<b>Coppabella</b>			
1.	Minimal transmission infrastructure alignment:		Yes
	<ul style="list-style-type: none"> <li>330kV transmission line on Coppabella</li> </ul>	Increased avoidance of areas of high biodiversity constraint	
	<ul style="list-style-type: none"> <li>132kV transmission line on Coppabella</li> </ul>	Increased avoidance of areas of high biodiversity constraint	
	<ul style="list-style-type: none"> <li>Alternate 132kV switchyard location - south of original by 2.25km</li> </ul>	Potential to minimise cut and fill requirements of original location and to reduce number of creek crossings required for access	
2.	Micrositing/ minor relocation of wind turbines:		Yes
	<ul style="list-style-type: none"> <li>9, 15, 80, (Refer response to NSW Trade &amp; Investment Crown Lands submission)</li> </ul>	Avoidance of blade overhang over Crown roads	
3.	Alternate substation		Yes
	<ul style="list-style-type: none"> <li>Alternative substation location on Coppabella in proximity to that currently proposed</li> </ul>	Potential to relocate to more level area reducing cut and fill requirements, and to reduce impacts to native vegetation.	
4.	New access track		Yes
	<ul style="list-style-type: none"> <li>New access track connecting two ridges on Coppabella</li> </ul>	Improved connectivity and potential for reduction in cut and fill of previous track layout. Reduced traffic movements during construction and operation.	
<b>330kV transmission line</b>			
1.	<ul style="list-style-type: none"> <li>330kV transmission line moved approximately 230m east at Hume Highway crossing.</li> </ul>	Reduced visual impact for residence M13 and other Bookham residences and	

## Yass Valley Wind Farm

Turbines relocated or removed following feedback from the community

Turbine number	Reason
COP 72, COP 73, COP 74, COP 75 & COP 76	Reduce visual impact to residences C01, C07 & C13
113	Reduced visual impact and noise impact to residence M42
107, 108 & 109	Reduced visual impact and reduced noise impact to residence C25
21, 22, 23, 24, 26, 27 & 28	Reduced visual impact to residence C04
115 & 122	Reduced visual impact to residence C27 & C28

## IPART – Breakdown of retail electricity cost

