

Business Cards—Created Using Wind Energy

For Wind Power's business cards and other minor stationery, we were able to find a company that powers its operations using solely wind energy. Idaho Design, who do our website and desktop publishing, were able to source the paper from Mohawk Fine Papers, which increased its purchase of wind-generated electricity RECs from 60,000,000 kWh to 100,000,000 kWh annually. This is 100% of the electric power required for all of Mohawk's operations. Additionally, they make a range of paper which is carbon neutral. In their own words: "Because paper is a highly disposable item, produced in vast quantities in a very resource and energy-intensive process, Mohawk has a responsibility to be a good environmental steward. We believe that conserving energy, using emission-free energy, and supporting sustainable forestry practices are fundamental to mitigating climate change." Quite an impressive stance.

Website Upgrade

Wind Power's web site is in the middle of an update process. Idaho Design are working on improving the user friendliness of the site, including significant structural changes. New things to be added will include a comprehensive Frequently Asked Questions section, an extensive photo gallery (including an internal turbine tour), performance data of the Wonthaggi wind farm, including power generation by-the-hour, every hour, for the last 20 months.

New Office and Contact Details

Wind Power has moved to a new office. Located in downtown Hawthorn, the office sits high above the bustling shopping district of Glenferrie Rd. The office has an abundance of natural light, huge open spaces and an inventive car stacker in the basement, although no one has been game to use it,

Note the new phone numbers also on the front of this newsletter.

Additionally, please use the email address info@wind-power.com.au for contacting us electronically.



Printed on recycled paper using 100% post-consumer waster

Wonthaggi Sunset. The sun slipping below the horizon at the Wonthaggi site.



Did You Know?

... that there is a Black version of the search engine Google that saves energy? Normally Google is white on a computer screen, which uses more power. In January 2007 a blog post titled "Black Google Would Save 750 Megawatt-hours a Year" proposed the theory that a black version of the Google search engine would save a fair bit of energy due to the popularity of the search engine. Visit www.blackle.com

... that by turning down the central heating by 1 degree you can knock 10% off your heating bill?



Lexton Wind Farm

Newsletter

Issue 2 October 2007

Welcome to the fourth edition of the Lexton newsletter. This newsletter provides information to the communities involved in the Lexton Wind Farm development, situated 20km north east of Beaufort, 50km north west of Ballarat. More copies are available by either contacting us, or downloading from our website. See below for details.

New Power Line to Waubra?



Data Tower Installation. A combined effort of Enviromet, Wind Power and a local land owner saw the recent erection of a 60m data tower. This is very similar to the tower that is going up at Lexton, and should be up by the time this goes to print.

Wind Power has engaged specialist consultants to undertake the technical design study for connection of the Lexton Wind Farm to the electricity grid. One of the considerations for assessing the suitability of Lexton is the good physical access to the Ballarat-Horsham 220kV transmission line (which runs through Lexton). Project planning work to date has focussed on connecting directly at this point. The consultants have now suggested an alternative option of accessing the grid at the same connection point as Waubra Wind Farm. This option would involve constructing a single pole power line from Lexton to Waubra. There are technical benefits in limiting the number of connection points on the Ballarat-Horsham 220kV line, as any additional connection to the transmission line requires more complicated design work.

Any technical benefits which arise from simplifying the connection of the wind farm need to be balanced against the additional costs of building a 66 kV power line from Lexton to Waubra and any visual or social impacts which may arise from such a line. This type of power line consists of 3 wires on a single pole and would be the same as a typical rural power line. The power line could be located along roadsides or on private land, whereby the landholder would be paid a fee. At this stage the consultant engineers are testing the technical design concept and no decision has been made. If building a power line is the best solution for the project, Wind Power would work cooperatively with the community to identify a line route that did not intrude on any nearby residents.



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Windpower Markets Surge World Wide

Harnessing wind energy is growing at enormous rates around the world. The cumulative installed base of plants world wide is expected to grow from the current 75gigawatts (or 75,000MW) to 260GW between 2006 and 2015. North America and Asia will lead the push, with Asia Pacific coming in third. As a comparison, the Wonthaggi plant generates 12MW. At the moment there is a bottleneck of supply, with waits of several years for turbines and towers. This short term supply issue is expected to give way to longer term, sustained growth.

Although wind energy currently produces just over 1% of world-wide electricity use, it accounts for approximately 20% of electricity use in Denmark, 9% in Spain, and 7% in Germany. Globally, wind power generation more than quadrupled between 2000 and 2006. However, in China, the growth rate is over 100% per year. The total wind power potential of China alone has been estimated at 2860GW.

With Australia having the highest per capita level of greenhouse gas emissions in the developed world, it puts things in perspective.

Reference: Renewable Energy Focus, September Issue 2007.



Wonthaggi Installation. Left: the nacelle being unloaded from the semi trailer at the site. Right: the tower is manufactured in Portland by Kappel Prince engineering. Where possible, local manufacturing and labour is insisted on.

What is Forecasting?

Australia's national electricity market will soon include forecasting of wind energy production based on real time analysis of wind speeds. This is an important step in integrating renewable energy into the grid and in developing alternatives to coal fired power generation.

The forecasting system can predict the level of energy production 6 hours ahead of time with an accuracy of above 95%. This means the managers of the electrical grid can see when, where and how much wind energy will be produced across the grid. Based on this information other generators (such as gas and hydro) can be directed to increase or decrease their production so that power is produced with a low carbon footprint.

Wind Power spokesman Vaughan Hulme said "opponents of wind energy criticise the technology because it only generates when the wind blows and so does not produce 'base load' power. This new system shows how the increasing levels of wind (and solar) energy can effectively contribute to our growing power needs."

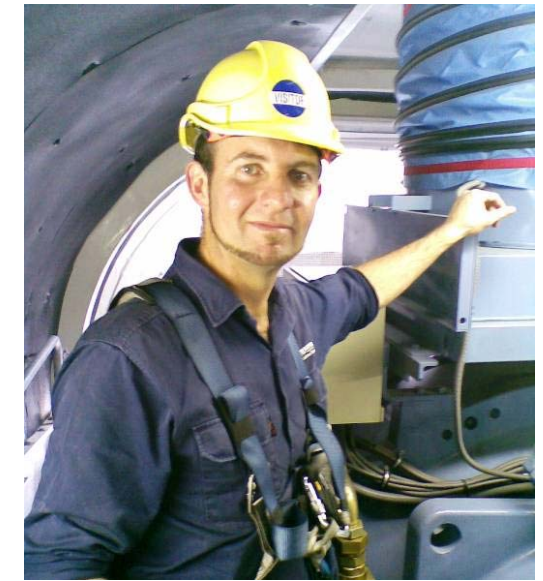
The system can also be applied to larger scale solar production and is modelled on European electricity management practices. These are much more advanced in integrating energy production from renewables and carbon producing fossil fuels. The forecasting system will be included in the proposed design for the Stockyard Hill wind farm.

Wind Power's New Recruit

The new kid on the block at Wind Power is Ross Richards. Ross will be involved with general project management, but his main responsibility is community liaison. As such, Ross will be putting in appearances at community meetings, writing newsletters, getting relevant information published on the web site, and co-ordinating other community activities.

Ross has a varied background. Before moving back to Melbourne he was directing a non-profit organization called Wollangarra in the heart of the Victorian high country near Licola, battling fire and flood in the last year. Otherwise, he has been a teacher in various schools around the state, worked full time on the family farm at Anakie (near Geelong), and worked as an engineer for the Ford Motor Company after finishing his degree in aerospace engineering at RMIT.

Ross is looking forward to his career in the renewable energy industry, particularly getting to know the communities with whom Wind Power is involved.



The new boy. Wind Power's newest addition up inside the nacelle of a Wonthaggi turbine.

Frequently Asked Questions

Wind Power is committed to community consultation. We try to answer all questions and listen to everyone that is involved with the areas affected by proposed wind farms. These questions below have come directly from a community reference group, and we are happy to answer them here for the benefit of others.

Q. Do turbines cause fires?

In rural areas, electricity-related fires are most likely to result from damage to overhead power lines by falling branches. As all high-voltage connections for turbines around the site will be run underground, the risk of electricity-related fire is extremely low.

Each turbine is also fitted with a comprehensive lightning protection system that safely transfers any high voltages or currents directly to the earth without affecting turbine performance. However, any electrical facility has the potential to catch fire. The fire control methods for wind farms are the same as those used for all other high-voltage electrical assets.

Q. Who receives financial payment for a wind farm project?

Landowners hosting turbines on their land as part of the wind farm project will receive an annual payment of approximately \$7000 per turbine for the life of the wind farm.

The owner of the wind farm will also pay \$500 per turbine, per year into a Community Fund. The Community Fund will be used to support a range of projects that directly benefit the local community.

I'm not hosting a turbine on my property. Will I be eligible for financial payment as an adjoining landowner?

Only landowners who have agreed to host turbines on their property as part of the wind farm project will receive a direct financial payment. The community in general will, however, benefit from the Community Fund.

Q. What sort of projects will benefit from the Community Fund?

The Community Fund will provide financial support to organisations and individuals that work to make a positive and lasting contribution to their community. Further details on the types of projects that will be eligible for funding will be determined through community consultation, the community reference

group and ultimately be decided by the committee formed to administer the Community Fund.

Q. Who decides which projects will receive funding from the Community Fund?

The committee administering the Community Fund, made up of local people who wish to be involved, will ultimately decide which projects will receive funding.

Q. Is it possible for more than one project to benefit from the Community Fund?

Yes, it is possible that multiple projects will receive funding. The exact number of projects will depend on the size and scope of each individual project and may vary from year to year and be decided by the committee.

Q. What is an example of a project that might benefit from the Community Fund?

Some examples of eligible projects may include, but are not limited to:

- Recycled watering systems for community parks, gardens and sporting grounds
- New playground equipment for the local school
- Community centre upgrade
- Local festivals and community events

Q. How will funding applications be assessed?

The Community Fund assessment criteria will be developed by the committee established to administer the Community Fund. As stated above, the committee will be made up of interested and suitably qualified local people.