

12 September 2011

Tyson Self
Manager, Projects Access
Economic Regulation Authority
PO Box 8469
PERTH BC WA 6849

By email: publicsubmissions@erawa.com.au

Dear Mr Self

Mid West Energy Project (Southern Section)

Vestas - Australian Wind Technology Pty Ltd (**Vestas**) wishes to make a brief submission on Western Power's Mid West Energy Project (Southern Section) (**MWEP**) referred to above.

Vestas is the world's leading supplier of wind power solutions, having installed more than 41,000 wind turbines across the globe. Worldwide, Vestas employs more than 23,000 people in the design, manufacture, sales, installation, operation and maintenance of wind turbines. While the home country of Vestas is Denmark, we have significant operations all across the world and we are experienced in comparing policies and regulations in all our markets.

In Australia we have been responsible for the supply of more than half of the wind energy capacity to date, including the Collgar, Emu Downs and Alinta (Walkaway) wind farms in Western Australia.

We wish to provide comments and references in support of Western Power's MWEP, but will restrict our comments to matters relevant to the Net Benefits Test set out in Section 6.52(b)(ii) of the Access Code.

In particular, we wish to focus on the claimed reductions in the total cost of energy to consumers, set out in part 6.4 and 6.5 of Western Power's submission to the ERA as well as the supporting analysis provided by ACIL Tasman in its report from June 2010 and its letter of 7 April 2011.

Merit Order Effect

The reduction in electricity prices asserted by Western Power and supported by the ACIL Tasman analysis is consistent with the observed market benefits of wind farms and other generators with a zero or near zero fuel cost in many other energy markets around the world.

The reduction of electricity prices as a result of increased penetration of wind farms and other renewable energy generators is commonly known as the “merit order effect”. The name is drawn from the order in which wind farms bid into energy markets at a low price, thereby displacing fossil fuel generators such as gas and coal fired power stations.

Wind farms have this effect due to their Short Run Marginal Cost (**SRMC**). Primarily as a result of their zero fuel cost, wind farms have a very low SRMC and one that is substantially lower than power stations that use fossil fuels.

Increased penetration of wind energy tends to reduce wholesale pool prices in energy markets, providing cost savings to consumers. The extent of this depends on not only the level of wind energy generation but also the extent to which the energy market is split between bilateral contracts and energy trading.

In the case of the Western Power submission, only \$149 million of benefits are claimed as a result of the merit order effect. This is due to the predominance of bilateral contracts between Synergy and the power generators in WA and the comparatively low level of trading in the Short Term Energy Market (**STEM**).

However, if for any reason Synergy increases the amount of electricity bought in the STEM then the consumer benefits claimed by Western Power may actually turn out to be quite conservative estimates, and the energy cost savings for consumers may be even greater.

Experience from other markets

To support Western Power’s claim of consumer savings as a result of the merit order effect, we thought it would be useful to provide some examples of how this has worked in other markets in Australia and around the world.

To this end, we have attached two other references that illustrate the way in which the merit order effect has operated to achieve lower energy prices:

- “Wind Power and Electricity Prices” – a literature review by expert consultants Pöyry for the European Wind Energy Association (April 2010)
- “The Integration of Wind Generation within the South Australian Region of the Australian National Electricity Market” – University of NSW (November 2009)

As both papers note, the extent of the merit order effect depends on generator bidding strategies, the level of bilateral contracting, and of course the level of wind energy penetration in a given market.



Vestas Australian Wind Technology Pty Ltd

However, we trust that both papers provide further information to support Western Power's claims on this topic and give an indication of the potential market benefits that wind power can have for WA energy consumers in the future.

Next steps

We would be pleased to brief the ERA further on this topic and can be contacted on (03) 8698 7075.

Yours sincerely,

[signed]

Ken McAlpine
Director, Policy and Government Relations
VESTAS - AUSTRALIAN WIND TECHNOLOGY PTY LTD