



An update on **Denmark's proposed community-owned windfarm**

Background

For decades Denmark has been supplied with electricity via the State electricity grid, generated by coal- and gas-fired power stations more than 400km away. Being near the end of such a long transmission line, Denmark continues to experience power quality and reliability issues, including occasional extended blackouts in some areas. Population growth and more appliances being connected means that the need for a more reliable and robust supply has reached a critical level.

The proposed windfarm will feed into the grid, helping to improve its quality and reliability, reducing Denmark's "carbon footprint", and delivering social and environmental benefits. Western Power, which is responsible for maintaining energy infrastructure, sees the windfarm as the centrepiece of its multi-million dollar program to upgrade the local power network over the next few years.

Denmark homes and businesses currently consume in the order of eight gigawatt hours (GWhr) of electricity annually, which costs about \$1m. The windfarm will supply about 55% of this demand, and prevent several thousand tonnes of greenhouse gases (GHGs) entering the atmosphere each year – the equivalent of taking about 1500 cars permanently off the road. It will also:

- generate funds that will stay in the community
- create local employment during construction
- provide a model for other rural communities to follow
- have spinoff benefits such as education, consultancies and tourism.

Two 800kW wind-turbine generators will be erected at Wilson Head, south of the existing limesand quarry, on an area within A-class Reserve 24913. The windfarm and associated infrastructure will take up about one hectare – less than 0.25% of the 554ha reserve. By comparison, the adjacent limepit covers 12ha. The windfarm will be more than 3km from the nearest permanent residences – *three times* the distance deemed acceptable for visibility and noise issues.

The site

A survey of the district in 2003-4 identified eight potential sites for a windfarm. Each was evaluated against a set of established criteria, resulting in Wilson Head becoming the preferred site, because it best met all the criteria and was most likely to deliver a viable project.

Government funds were obtained to undertake a feasibility study, and DCW applied to rezone a 50ha area for a windfarm. Though council at the time did not support rezoning, the present council subsequently voted to "support the endeavours of the Denmark Community Windfarm Inc." [Minutes 27/5/08, p66]; and more recently, that "... council congratulate DCW in obtaining federal funding towards the construction of a windfarm, and look forward to working together with DCW and government agencies to address Denmark's power supply and climate change issues." [Minutes 25/11/08, p8]

(NOTE: there is no 'alternative site' for a Denmark windfarm: even though DCW recommended that all suitable sites identified in its survey be retained as additional potential sites, council's Draft Local Planning Strategy identifies only one – the current site at Wilson Head.)

Who will own the windfarm?

The project has always, and will continue to belong to the Denmark community. DCW is a registered not-for-profit community group which currently manages the project on behalf of its members and the broader community, through an elected committee of local residents who have so far given more than 10,000 hours of voluntary time to make the windfarm a reality.

DCW's recently-announced capital works grant (see the Minister's media release overleaf) will be provided to Denmark Power Company (DPC), the corporate body which will lead the project through financing, construction and operation. DPC will also invite public investment, to achieve the remaining 50% of funds needed to complete the project.

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This way a community-based control mechanism will continue to oversee the distribution of profits, as required by DCW's constitution: that the windfarm be owned and operated by the community. This ensures that all Denmark residents will benefit – either directly, through holding shares in DPC; or indirectly, through a community "future fund" which will provide financial assistance for community projects such as sporting and cultural facilities, programs for youth and the aged, and so on.

Best of all, everyone in Denmark, shareholder or not, will have direct access to their own source of clean, green energy.

The next steps

The windfarm will play a major role in solving Denmark's historic energy problems. It may also become the beating heart of an exciting energy storage project currently being investigated by Western Power, to overcome transmission losses and balance load variations when the wind isn't blowing.

DCW's next steps will be to sign an Access & Connection agreement with Western Power, and finalise formal access to the site; followed by an invitation for people to invest in the windfarm. When sufficient finance has been acquired, the turbines will be ordered and headworks can commence – constructing the access and installing infrastructure.

On current projections, headworks could begin late next year.



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