

Submission
No 78

INQUIRY INTO RURAL WIND FARMS

Organisation: Suzlon Energy Australia
Name: Ms Megan Wheatley
Position: Business Development Manager, Strategy and Policy
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Legislative Council General Purpose Standing Committee No 5 NSW Rural Wind Farms Inquiry

INTRODUCTION

Suzlon Energy Australia Pty Ltd (Suzlon) is the largest turnkey constructor and operations and maintenance service provider of grid connected wind farms in Australia.

Our current commitments will see Suzlon delivering over 700 megawatts of clean renewable energy to Australian consumers. We have built two major wind farms in South Australia, with another four projects under construction, including the 140 megawatt Capital Wind Farm near Bungendore in NSW.

The total investment value of the projects we are building is around \$AUS 2 billion. This includes an investment of \$AUS 1 billion for the turbines manufactured by our parent company in India, with a further \$AUS 1 billion invested locally in components and services including towers, and civil and electrical works.

Suzlon directly employs over 230 people, with our commitments expected to provide jobs for around 1,400 people supporting the construction and operation of our wind farm projects.

We welcome the opportunity to provide input into the NSW Rural Wind Farms Inquiry.

SUMMARY

- Wind energy has an important role to play in the transition to a low carbon economy. However, wind energy is only one part of the future energy solution.
- Wind is a naturally variable resource – and there are a range of measures to manage an increased penetration of wind energy in the network.
- Wind farm projects provide a range of benefits for local communities and local businesses.
- The commercial viability of a wind farm depends on a number of location-specific factors: including wind resource; and access to transmission network.
- Current planning processes around Australia ensure that the benefits of wind energy are balanced with the need to protect community and environmental values.
- NSW is well positioned to realise the benefits of an expanded wind energy sector.



KEY POINTS

Role of wind energy in a low carbon economy

Moving to a low carbon economy will require a significant transformation of our energy sector, including:

- Reducing energy demand, and breaking the link between economic growth and energy consumption;
- Facilitating the transition from carbon intensive energy supplies;
- Accelerating the deployment of renewable and low carbon energy supplies;
- Ensuring investment in the infrastructure to unlock Australia's clean energy potential, and enable a more sophisticated connection between supply and demand.

As a mature and proven renewable energy technology, wind energy has an important role to play in reducing the greenhouse intensity of our energy system. There is now over 120,000 MW of wind energy installed globally¹, and around 1,500 MW of wind energy installed in Australia.

Importantly, wind energy is only one part of the future energy solution, and must be complemented by other forms of clean energy supply, as well as energy efficiency improvements across the economy.

Because wind is a naturally variable resource, there are limits to the extent to which wind energy can contribute to meeting energy demand based on our current energy systems.

However, there are a range of measures that can help manage an increased penetration of wind energy in the network, including:

- complementary supplies, such as co-locating peaking plant (hydro or gas) near wind farms;
- wind energy forecasting, such as the Australian Wind Energy Forecasting System (AWEFS), to inform the operation of other generators in the network;
- smarter networks that enable better communication between the energy market and energy users, to facilitate more sophisticated demand side response to changing supply (such as automatic appliance control);
- strategic investment in storage, including the use of electric vehicles, to store clean energy and feed it back into the network as required.

¹ Global Wind Energy Council



Benefits of wind energy development

Wind farm projects provide a range of benefits for local communities and local businesses.

For example, as a result of two wind farms we have built in regional South Australia, we have invested well over \$6 million in local businesses.

Many local companies have experienced significant growth as a result of the wind farm projects, with increased demand for transportation and heavy equipment providers, electrical contractors, engineers, as well as accommodation services.

Suzlon has developed a number of case studies highlighting the benefits of some of the wind farm projects it has built in South Australia. Refer Attachment 1 – Regional Development Case Studies.

Locating rural wind farms

There are a number of factors that impact on the commercial viability of a wind farm project that are very location specific, including: the wind resource; and access to electricity network.

When locating wind farms, it is important that the benefits of wind energy are balanced with the need to protect environmental and community values.

Wind farm proponents undertake a range of studies to assess the impact of a proposed project to inform the planning process including environmental studies, as well as studies looking at impacts on the amenity of the local area, such as noise and visual impact.

Planning systems around Australia are structured to enable community input into new developments, including wind farms, and wind farm companies work hard to facilitate community engagement. Engagement with the local community is a very important part of the development process, and helps inform the location of a wind farm.

Impact of the Renewable Energy Target

With the passage of the Renewable Energy Target (RET) legislation, we anticipate that we will see an investment in up to 8,000 MW of new wind energy developments to 2020. This would equate to around 4,000 turbines around Australia.

RET is a market mechanism, which means that only the most competitive renewable energy projects will be built.

Suzlon Energy Australia Submission



POWERING A GREENER TOMORROW

Future of wind energy in NSW

NSW is well positioned to support a thriving wind energy industry, with a robust electricity network, and significant areas of good wind resource. Despite these advantages, NSW is home to only 10% of Australia's wind farms (operating and under construction).

However, the NSW Government recently announced incentives to boost investment in clean energy generation. This included some very positive moves, such as:

- treating wind farm projects over 30 MW as critical infrastructure;
- clear timelines for clean energy projects that qualify as critical infrastructure;
- Renewable Energy Precincts to facilitate community engagement with clean energy projects.

Conclusion

Suzlon welcomes the opportunity to provide input into the NSW Rural Wind Farms Inquiry.

Wind energy has an important role to play in a low carbon economy, and can deliver a range of clean energy job opportunities, and regional development benefits. NSW is well positioned to support a thriving wind energy industry, and see the benefits realised across the State.