

Hand Hills Wind Project

Newsletter No. 2



Project Update

Over the past few months, since our last newsletter, there have been several developments in the Hand Hills Wind Project.

On May 13, 2014, the Alberta Utilities Commission (AUC) approved BluEarth's application to extend the completion date of the Hand Hills Wind Project to December 31, 2018. BluEarth requested the extension because there is a delay in the regulatory process to develop the infrastructure required to interconnect the facility to the Alberta Integrated Electrical System.

The Hand Hills Wind project team continues work to secure Power Purchase Agreements. As mentioned in our previous stakeholder newsletter, these agreements must be secured before we can order equipment and begin construction.

We appreciate the community's patience as we complete our project milestones. As always we are available if you have any questions or comments at [1-844-214-2578](tel:1-844-214-2578) or projects@bluearth.ca.

BUILDING OUR TEAM!



We're pleased to welcome Gareth McDonald (left), Lead - Project Development, and Jared Sproule (right), Community Liaison to the Hand Hills Wind Project team.

At BluEarth Renewables

we believe in keeping our neighbours and landowners informed about our projects. Whether it is face-to-face meetings, on our website or here, in our Hand Hills Wind Project newsletter, we understand the importance of communicating with our stakeholders. In this newsletter you will find an update on the status of the transmission interconnection and new additions to the team.



Did you know...

"Alberta is uniquely suited for renewable energy, with the most hours of sunshine in the country and more reliable winds than any other province."

— Pembina Institute

Wind energy marks milestone but Faces Headwind

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On April 23, something impressive happened in Alberta and the good news is no one noticed. It was a particularly windy morning, and for the first time, more than 1,000 megawatts of wind energy was generating electricity on the grid. That meant that enough electricity supply was coming from emissions-free, renewable wind energy to power almost every home in the province.

Kudos belong to the Alberta Electric System Operator (AESO) for no one noticing, as this was the most wind the system had ever handled. In fact, it is far above the threshold of 900 megawatts that was perceived as a de facto limit only seven years ago. Now, with state-of-the-art weather forecasting, data networking and communication systems, as well as a 20-year track record of wind power on the system in Alberta, the AESO is already handling almost twice as much wind capacity on our system, and is prepared for much more.

Wind is already providing more than five per cent of our annual electricity supply in Alberta — more than enough to power one out of every three homes in the province. While there is a lot more to do, the energy generated by the current wind fleet is roughly the same as an entire year of pollution-free electricity once every 20 years. Given Alberta's electricity system produces almost as much greenhouse gases as the oilsands do, a year off every couple of decades is a good start.

Wind energy has the potential to deliver a lot more. While Alberta is among wind energy leaders in Canada, we are trailing compared to many of our neighbours to the south. More than 10 U.S. states have more than 10 per cent of their annual generation coming from the wind, with Iowa and South Dakota already generating one-quarter of their annual needs from wind energy. These states are greening their grids and finding that those with the most wind energy have had the lowest electricity price increases in the country, thanks in part to the fact that the cost of "fuel" for wind turbines is stable at zero dollars.

While wind clearly behaves differently than coal and natural gas (where most of Alberta's electricity comes from), system operators across North America have been successfully learning how to handle higher and higher levels on the system. This experience has put to rest simplistic assumptions that wind needs one-to-one backup, as the system already handles variation in daily demand, unexpected loss of supply, planned maintenance and repair, and other factors that cause sudden shifts in load. New technology, advanced markets and new ways of thinking will be required as we approach much higher levels, but we have a long way to go and time to prepare as we are nowhere near tapping out our resource.

There is no shortage of windy sites on the Prairies, and Alberta could easily quadruple the existing fleet. There is technically enough wind



resource in Alberta for 100 times as much. Furthermore, new advances in technology have made wind energy among the lowest cost options for new electricity. So, it is surprising, then, that just as we are overcoming key milestones in the province, market forecasts for Alberta show it is poised to stagnate.

Wind energy gets a lower price for its electricity than all other sources of generation in the Alberta market. While this is good for consumers, perversely it means that new wind energy projects are increasingly difficult to build here, making them difficult to finance even though they cost less than a new coal plant.

Wind energy does not need subsidies to compete on long-term prices in Alberta's market; in fact, recent data released by the AESO showed that wind is our second-lowest cost option for new supplies.

However, Alberta's market makes other options more profitable, and so renewables like wind need a policy framework to support and recognize their unique value proposition. If Alberta wants a more diversified and renewable electricity future that reduces emissions, offers affordable power and helps protect consumers from future price volatility, it will need to choose policies that support renewables such as wind.

The Alberta government's proposal to create a new Alternative and Renewable Energy Strategy provides an opportunity to put such policies in place. If not, Alberta stands to miss an opportunity to develop a tremendous clean, local energy resource.

Edmonton-based Tim Weis is a professional engineer and the Alberta regional director for the Canadian Wind Energy Association.

About BluEarth

Headquartered in Calgary, BluEarth Renewables Inc. is a private independent renewable power producer, focused on the acquisition, development, construction and operation of wind, water, and solar projects in North America, with a primary focus in Canada. With the most experienced renewable energy development team in Canada, BluEarth's mission is to be the Canadian renewable energy leader by developing, building, and operating a portfolio that optimizes people, planet, and profit. BluEarth believes it has the power to change the future by demonstrating how to be sustainable and profitable, leaving the world a better place.

For more information, visit bluearth.ca.

