

Pattern Development Completes Largest Wind Project in British Columbia



Pattern Development's Meikle Wind Power Facility. (Courtesy: Pattern Development)

Pattern Development recently announced the completion of its 184.6 MW Meikle Wind power project in British Columbia.

“Meikle Wind is now the largest wind facility in British Columbia, increasing the installed wind-power capacity in the province by 37 percent,” said Mike Garland, CEO of Pattern Development. “Located in a mountainous region, this project was unique for its construction, design, and weather challenges, as well as for our discovery of rare dinosaur tracks during construction, which we donated to the Tumbler Ridge Museum. Meikle Wind would like to thank the participating First Nations, the communities of Tumbler Ridge and Chetwynd, BC Hydro, as well as the general contractor Borea Construction and turbine supplier GE, for their collaboration on making this project a great success.”

The Meikle Wind facility uses 61 GE wind turbines

and has the capacity to generate clean energy for up to 54,000 homes in the province. The facility has a 25-year power purchase agreement with BC Hydro. Meikle Wind used more than 500,000 man-hours of labor during construction, with in excess of 30 percent of the value of contracts awarded to First Nation-affiliated contractors and other regional firms. Going forward, the facility will be managed by 16 operations and maintenance personnel, and will also use a variety of local subcontractors.

The Meikle Wind facility was thoughtfully designed and planned, incorporating input from First Nations, the Tumbler Ridge and Chetwynd communities, and the provincial government. The project's innovative layout, developed in collaboration with GE, incorporates two different turbine models consisting of varying rotor sizes and hub heights. This design was developed to capture the most energy from the ridgelines,

accounting for varying wind speeds, wind shear, turbulence, and inflow angles. Meikle Wind is within an area that was significantly affected by pine beetle kill and previous forestry activity, reducing the overall environmental impact of the project.

Meikle Wind is generating strong benefits for the province with an estimated \$70 million in payments for property taxes, Crown lease payments, wind-participation rent, and community benefits over the first 25 years of operations.

The 184.6 MW Meikle Wind facility expanded British Columbia's total installed wind capacity to 673.6 MW, according to the Canadian Wind Energy Association (CanWEA). ↵

Source: Pattern Development

For more information, go to www.patterndev.com



Sunrise at the Meikle Wind Power Facility. (Courtesy: Pattern Development)

Senvion Wins Contracts for More Than 151 MW for Three Wind Farms

Senvion, a leading global manufacturer of wind turbines, has concluded contracts with Banks Renewables for the supply and installation of 47 turbines for three wind-farm projects totaling 151 MW. Senvion also has signed 20-year operations and maintenance contracts for all three projects.

Senvion will supply 26 of its 3.4M104 turbines for Kype Muir Wind Farm in South Lanarkshire, Scotland. The wind farm will have a total rated output of 88 MW and will produce enough electricity to power 62,000 homes each year. The wind farm is expected to come online at the start of 2019.

Also in South Lanarkshire, the Middle Muir Wind Farm will consist of 15 Senvion 3.4M114 turbines, eight at 79-meter hub height and seven at 93-meter hub height. These hub heights will enable the wind farm to



Turbines like this MM100 will be part of the Moor House Wind Farm. (Courtesy: Senvion)

take full advantage of variable wind speeds. The wind farm will have a total rated output of 51 MW and will produce enough electricity to power more than 33,000 homes. Middle Muir is scheduled to go live in 2018.

Located near Darlington in North East England, Moor House Wind Farm will consist of six Senvion MM100 turbines at a total rated output of 12 MW and will produce sufficient energy to power 9,000 homes. Delivery will start in August and commissioning is expected to be completed early in 2018.

The three wind farms were all successful in the U.K. government's first competitive Contracts for Difference (CfD) program for onshore and offshore projects in 2015.

"The successful conclusion of these three contracts continues the positive start to 2017 for Senvion," said Jürgen Geissinger, CEO of Senvion. "These orders also demonstrate that Senvion provides a strong product fit to match the market requirements and wind conditions in the U.K."

"We are delighted to be continuing our successful partnership with Banks Renewables," said Guy Madgwick, managing director of Senvion Northern Europe. "We look forward to building on this relationship through 2017 and beyond."

"We have enjoyed a long and successful relationship with Senvion," said Richard Dunkley, managing director at Banks Renewables. "We are very pleased to be able to utilize their high-quality turbines and expert support services once again for these three landmark projects. Onshore wind in general and these projects in particular represent the best value for money to consumers as the government seeks to deliver on its climate change obligations, and it's exciting to now be accelerating the process of taking these wind farms forward." ↵

Source: Senvion

For more information, go to www.senvion.com

Ingeteam Takes Wind-Converter Supplier Top Spot After Record-Breaking Year

Ingeteam, an independent global supplier of electrical conversion equipment, recently announced it achieved a new record year for the deliveries of its wind-power converters worldwide.

With nearly 5 GW of new capacity added in 2016 alone, a total of 36,414 MW of wind turbines have been equipped with Ingeteam's technology since 1995, making the Spanish company the world's No. 1 supplier of wind-power converters.

Ingeteam's record performance was particularly impressive in large emerging wind markets, despite intense competition. Deliveries to India and Brazil reached a peak volume of 1,268 MW and 837 MW, respectively, in 2016.

According to the Ministry of New and Renewable Energy (MNRE) of India, the country's total wind-power capacity has reached more than 28 GW, with an additional 3,612 MW installed in 2016. Ingeteam ended 2016 with more than 35 percent of the wind-power capacity installed in the country that year. To date, 9 percent of all wind-power capacity in India is equipped with Ingeteam's technology.

By December 2016, more than 10,740 MW was being generated by wind farms in Brazil, according to data from GWEC. In 2016, installed capacity has increased by an additional 2,014 MW, which represents a 41-percent market share for Ingeteam for that year and 23 percent of the total market to date.

"2016 was a great year: We increased the volume of our deliveries by 32 percent compared to 2015," said Ana Goyen, managing director of Ingeteam's Wind Business Unit. "We are very proud of this achievement. Our outstanding 2016 results



Ingeteam's power technology headquarters. (Courtesy: Ingeteam)

are due to our ability to constantly stay ahead of the curve and minimize the LCOE of customers. Now, we will strive to continue to provide our clients with our market leading technology. Our goal, going forward, is to offer ever increasing performance, lifetime and reliability, with a focus on permanent innovation."

A few months ago, Ingeteam generated broad market attention with the introduction of Ingencon Wind Fix2var Speed, a ground-breaking autonomous power conversion system that increases the Annual Energy Production (AEP), lifetime, and grid-performance of fixed-speed wind turbines by enabling them to transform to variable-speed machines to best match wind conditions.

Since it began in 1995, Ingeteam has commissioned almost 24,000 wind-power converters worldwide, accounting for 36,414 MW of installed capacity.

Ingeteam also provides generators, turbine controllers, condition monitoring systems, SCADA management systems, and services for wind turbines up to 12 MW for onshore and offshore applications worldwide. ↵

Source: Ingeteam

For more information, go to www.ingetteam.com



I-RECs are now being introduced in a growing number of countries, including countries in the Gulf region. (Courtesy: ECOHZ)

Companies Can Buy Documented Green Power in the Persian Gulf

For the first time, companies operating in the Persian Gulf can purchase documented renewable energy. ECOHZ now offers green power documented by the International REC Standard. By buying I-RECs, companies can reduce their greenhouse gas emissions and improve their sustainability rating.

“Corporations all over the world are increasingly demanding renewable energy for their global operations,” said Tom Lindberg, Managing director of ECOHZ, a provider of global renewable energy solutions. “It is simply a no-go to set up operations in places where renewable energy isn’t available, especially for corporations that have committed to using 100 percent renewable energy,”

Many of the world’s most influential companies have committed to using 100 percent renewable electricity by 2020 under RE100.

“There’s a reason why it’s called RE100 — not RE95,” Lindberg said. “Corporates are demanding renewable energy for all operations in all regions where they operate.”

I-RECs are now being introduced in a growing number of countries, including countries in the Gulf region. With I-RECs from ECOHZ, companies can now for the first time use an in-

ternationally recognized and valid tracking system to document that the electricity they consume in the Gulf comes from renewable energy sources.

I-RECs are a global standard used in regions where no similar documentation scheme exists. Companies can buy I-RECs to document and report the energy they consume outside Europe and North America comes from renewable energy sources.

The International REC (I-REC) standard builds on best practice from the North American Renewable Energy Certificate (RECs) market and Europe’s Guarantees of Origin system. I-RECs have strong stakeholder support, and the Greenhouse Gas Protocol recognizes I-RECs as an important instrument to document electricity consumption from renewable energy sources.

ECOHZ has been a driving force in the global development of I-RECs, including making I-RECs available in new markets. In 2015, ECOHZ was the first to provide I-RECs from major Asian markets and began offering I-RECs in both Honduras and Turkey in the following year. ECOHZ is developing a global portfolio of I-REC power plants, with the aim of pro-

viding companies a wide selection of options covering most regions in the world. ↗

Source: ECOHZ

For more information, go to www.ecohz.com

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