

# CONSTRUCTION

BOP/EPC • Project Status • Siting • Equipment • Project Due Diligence • Services

## Whirlpool Breaks Ground on Latest Ohio Wind-Power Project

Whirlpool Corporation recently broke ground on a project to build three wind turbines to help power its Marion, Ohio, manufacturing facility. The three turbines will deliver wind-generated power directly to the plant, and when fully completed, are expected to provide about 19 percent of the facility's total power consumption.

The Marion wind project — scheduled for completion in early 2017 — is expected to eliminate the equivalent of more than 9,000 tons of carbon dioxide. All three turbines will be built and financed by One Energy as part of its “Wind for Industry” projects.

“We’re always exploring cutting edge technologies that will bring us closer to accomplishing our sustainability goals,” said Ron Voglewede, director of Global Sustainability at Whirlpool Corporation. “We’re excited to bring a local focus for our global commitment to sustainability here in the Marion community and throughout Ohio, where we have significant investments in employees and facilities.”

Whirlpool Corporation's Marion facility is the largest employer in the county, with the plant's 2,400 employees producing an average of 4 million clothes dryers a year. This latest wind project is one way the company continues to strengthen its commitment to American manufacturing in Ohio.

“We’re pleased to be partnering with One Energy on another wind project. The wind turbines are not only a responsible investment for the environment, but also a smart financial decision,” said James Gifford, the Marion Facility Plant Lead at Whirlpool Corporation. “By reducing our electricity consumption, we expect to cut down on our overhead costs significantly.”

The Marion plant is one of three facilities in Ohio where Whirlpool Corporation is implementing wind



Rendering of what the Marion Wind turbines would look like once completed. (Courtesy: Whirlpool Corporation)

energy to partially power its manufacturing operations. Two wind turbines at the company's Findlay plant have been operational since January 2016. In October, a similar project began at Whirlpool Corporation's Ottawa facility. Following the completion of the Marion and Ottawa projects, many dishwashers, freezers, and clothes dryers manufactured by Whirlpool Corporation and sold in the United States will be made, in part, with wind energy.

As part of its commitment to the local Marion community, Whirlpool Corporation will also create one \$5,000 MW STEM Scholarship per wind turbine (\$15,000 annually) to be awarded every year to a graduating senior from local Marion area high schools as a way to inspire education in the technologies and industries of the future. ↘

Source: Whirlpool Corporation

For more information, go to [WhirlpoolCorp.com](http://WhirlpoolCorp.com)

## Siemens Celebrates Topping Out Ceremony at New Germany Turbine Factory

Siemens recently celebrated the topping out ceremony for its new wind-turbine manufacturing facility in Cuxhaven, Germany, attended by Parliamentary State Secretary Enak Ferlemann, Lower Saxony's State Secretary of Economic Affairs Daniela Behrens, and the mayor of Cuxhaven, Dr. Ulrich Getsch. The structural steel uprights now stand for the production building, which will offer 56,000 square meters of floor space. This new facility in northern Germany is one of Siemens' most important investment projects

in recent years, with some 200 million euros invested in what is the company's first offshore wind-turbine production plant in Germany.

“In celebrating this topping ceremony, we mark another important milestone for our new, state-of-the-art production site for offshore wind turbines in Cuxhaven,” said Markus Tacke, CEO of Siemens' Wind Power and Renewables Division. “The new manufacturing plant is part of our efforts to establish offshore wind power as a



Siemens celebrates the topping-out ceremony for its new wind-turbine manufacturing facility in Cuxhaven, Germany. Julian Egger, on the left in the safety equipment, is tightening a steel pin together with the political leaders and company representatives. (Courtesy: Siemens)

key pillar of a sustainable energy mix. At the same time, we're creating up to 1,000 attractive jobs here, and thereby supporting sustainable structural change in the coastal region."

Siemens already has received almost 1,600 job applications. A number of suppliers who will serve the plant have also announced plans to establish local businesses.

Enak Ferlemann, Parliamentary State Secretary at Germany's Federal Ministry Transport and Digital Infrastructure, underscored the significance of the project for offshore wind power in Germany.

"Siemens' new production plant in Cuxhaven sets an important signal for further expanding offshore wind power in Germany," Ferlemann said. "The power generated by offshore wind farms will contribute substantially to our future energy mix, while simultaneously helping us to achieve the climate goals of the Paris Agreement."

"Siemens' new manufacturing plant is and will be the single most important anchor for the new German offshore industry center in Cuxhaven, and underscores the essential role Lower Saxony is playing as Germany's leading energy-provider state and driver of the nation's energy

transition," said Daniela Behrens, state secretary at the Lower Saxony Ministry of Economic Affairs, Employment, and Transport. "We heartily welcome this positive development for Cuxhaven and the entire region."

Many new future-fit jobs are being created along with high-quality infrastructure that will strengthen Lower Saxony as a business location.

"The city of Cuxhaven is extremely pleased that, with this topping off ceremony, we're able to celebrate yet another milestone achieved in establishing Siemens' new production site," said Dr. Ulrich Getsch, mayor of Cuxhaven. "Siemens is creating attractive jobs here and further expanding the region's know-how."

Construction of the production building, which in places will stand 30 meters tall, is scheduled for completion by mid-2017. A two-story building enclosing about 3,800 square meters of floor space is being erected next to the production building to house offices and the site cafeteria.

This new manufacturing plant in Cuxhaven will begin producing nacelles for Siemens' next-generation offshore wind turbines in mid-2017. The wind turbines are designed

for installation at sea, each delivering an electrical generating capacity of between 6 and 8 MW.

There is a growing market for wind turbines designed for off shore. Offshore wind power plants are being built primarily in the North Sea and Baltic Sea off Europe's northern coastline. However, wind-power projects are being developed in other

regions, as well, such as along the East Coast of the United States and in Asia off the coast of China and Taiwan. ↵

Source: Siemens

For more information, go to [www.siemens.com/wind](http://www.siemens.com/wind)

### Siemens Receives Order for Onshore Wind Project in South Korea

Siemens Wind Power has received an order to supply 17 direct drive wind turbines for the Uljin onshore wind power plant in Gyeongsangbuk province on the east coast of South Korea. The customer is SK D&D Co., Ltd., a Korean developer of real estate and renewable energy projects.

The scope of supply includes the delivery and technical field assistance for the installation of 16 wind turbines of the new type SWT-3.6-130 on different towers ranging from 85- to 115-meter hub heights and one SWT-3.0-108 on a 71-meter tower. Siemens also was contracted for full service and maintenance over a period of 10 years including Siemens' advanced remote monitoring and diagnostics services.

The Uljin wind farm project is Siemens' second project for SK D&D and also its second order in South Korea. In 2014, both companies successfully completed the 30 MW Gasiri Wind Farm close to the city of Gasiri in the province of Jeju-do.

Due to site conditions in the coastal mountains of the Gyeongsangbuk Province, the new Uljin project will feature two different turbine types and four different hub heights. Besides one SWT-3.0-108 wind turbine with a 108-meter rotor and rated at 3 MW, 16 of the turbines will be the latest Siemens onshore model SWT-3.6-130. This IEC class II turbine is designed for medium wind sites and delivers 3.6 MW of electric power.

Installation will start in spring 2018, commissioning is targeted for late 2018. Once in operation, the wind-power plant will supply green energy to about 35,000 households.

"We are proud that SK D&D decided to partner with us again for their second wind project in South



Siemens Wind Power will supply 16 units of the new SWT-3.6-130 wind turbine to the Uljin wind farm at the east coast of South Korea. (Courtesy: Siemens)

Korea," said Thomas Richterich, CEO Onshore at Siemens Wind Power. "Uljin wind farm is a very important project for us since it marks the premiere of our latest generation of direct-drive turbines in the Korean wind market." ↵

Source: Siemens

For more information, go to [www.siemens.com/wind](http://www.siemens.com/wind)

### Dong and Eversource Partner to Make Large-Scale Offshore Wind in the U.S.

Dong Energy is teaming up with Eversource Energy — the premiere transmission builder in New England — who has acquired a 50 percent ownership interest in Bay State Wind in order to jointly develop the project.

The proposed offshore wind farm would be about 15 to

25 miles south of Martha's Vineyard in an area that has the potential to develop at least 2,000 MW of electricity — enough to power 1 million Massachusetts homes.

"Offshore wind has great potential in the U.S., and I am very pleased that we are entering into a strategic



partnership with Eversource to develop our first project in New England,” said Samuel Leupold, EVP and CEO of Dong Energy Wind Power. “Offshore wind will add to the diversity, and the security, of Massachusetts’ energy mix.”

“New England is setting the pace for a national clean-energy future with its proven track record in energy efficiency and bold clean-energy goals,” said Jim Judge, president and CEO of Eversource Energy. “Our partnership with Dong Energy on Bay State Wind represents a significant opportunity to help make those goals a reality, and we look forward to delivering this renewable and reliable source of power to customers.”

### A 50-50 PARTNERSHIP

Dong Energy Wind Power U.S. Inc. and Eversource will seek to jointly develop, construct and operate the utility-scale offshore wind project in a 50-50 partnership. Dong Energy will use its market leading expertise in the offshore wind sector to lead the development and construction of the project’s offshore generation and transmission assets.

Eversource will leverage its strong transmission expertise in New England to develop and construct the onshore transmission system.

“Offshore wind is a reliable home-grown energy source that can be delivered at scale to Massachusetts residents and businesses,” said Thomas Brostrøm, general manager for Dong Energy Wind Power U.S. Inc. “New England’s water depths and wind speeds are similar to those in Europe and provide attractive conditions.”

### A LANDMARK MOMENT

In April 2015, Dong Energy secured newly assigned project development rights to a 300-square-mile ocean area 15 miles off the coast of Martha’s Vineyard that was made available for lease by the Bureau of Ocean Energy Management (BOEM) in a competitive solicitation. In August 2016, Massachusetts formally adopted a comprehensive energy bill that includes a first-of-its-kind mandate that



Dong Energy’s wind division has built more than one quarter of the total offshore wind capacity in the market. (Courtesy: Dong Energy)

state utilities purchase 1,600 MW of offshore wind power by 2027. The first state-led procurement process will begin in June 2017. This represents a landmark moment for the offshore wind industry in the United States.

Dong Energy and Eversource are committed to playing a central role in bringing their companies’ respective expertise and successes to bear in order to help the state meet this goal. The companies expect that first power can be delivered in the early 2020s.

At 2,000 employees strong, Dong Energy’s wind division has built more than one quarter of the total offshore wind capacity in the market. Since launching the world’s first offshore wind farm in 1991, Dong Energy has pioneered and refined the approach to developing and constructing offshore wind farms. Each year, the company is building bigger, more efficient projects that can power even more homes with clean, reliable, and renewable energy.

“We are encouraged by the dramatic progress that Europe is making in the offshore wind market,” said Lee Olivier, EVP of Strategy and Business Development at Eversource Energy. “Wind technology is rapidly advancing; output is increasing, and prices are dramatically dropping. Now is the time to bring that progress here to New England, and we are thrilled to be partnering with a developer who has such a successful track record.”

Source: Dong Energy

For more information, go to [www.dongenergy.com](http://www.dongenergy.com)