

# MANUFACTURING

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## Senvion to deliver 126 MW in South Australia

Senvion, a leading global manufacturer of wind turbines, has been issued notice to proceed under a contract to install the first 35 turbines of the 59-turbine Lincoln Gap wind farm in South Australia.

The Lincoln Gap wind farm will feature the Senvion 3.6M140 EBC turbine, which will be the first from Senvion's 3-MW range to be installed in Australia. Senvion first announced it had a conditional contract in place to deliver more than 300 MW of wind energy for Nexif Energy for the Lincoln Gap wind farm in South Australia and the Glen Innes wind farm in New South Wales in February 2017.

"This effective contract for the installation of the first 35 turbines at the Lincoln Gap wind farm is a significant milestone for Senvion," said Raymond Gilfedder, CEO and managing director of Senvion Australia. "It also marks the introduction of the Senvion 3.6M140 turbine to Australia. This technology is very well suited to the Australian market and will ensure that the wind farm will continue to be a high performing asset for the coming decades."

The Senvion 3.6M140 EBC turbine is one of Senvion's biggest onshore turbines designed for moderate and strong wind speeds. The new turbine is equipped with the innovative load-reducing pitch control system Eco Blade Control (EBC) technology enabling optimized load management even in challenging wind conditions. The 3.6M140 EBC also features a newly designed steel tower and a larger rotor diameter of 140 meters, which generates high yields



The Senvion 3.6M140 EBC turbine. (Courtesy: Senvion)

even at lower wind speeds. The rotor blades feature the new Rod-pack technology, ensuring a lighter blade design. The first prototype installation of the 3.6M140 EBC was completed in Husum, Germany, in September.

The Lincoln Gap wind farm is near Port Augusta, South Australia. The first 35 turbines installed will deliver 126 MW of clean, renewable energy to Australian consumers. This stage of the project will be operational by the third quarter of 2018. Work is already well advanced on the early works for the remaining 24 turbines comprising the second phase of the Lincoln Gap development. When complete, the Lincoln Gap wind farm will produce enough energy to power 155,000 households in South Australia. The Clean Energy Finance Corporation is the financier for the project, and Nexif

Energy is providing the equity. Senvion worked closely with Nexif Energy to support achievement of financial close.

"We are pleased to be working with Senvion on our first wind project in Australia, and we appreciate the support of Senvion in the development of local industry and community engagement strategies," said Srinivas Rao, Executive Vice President Projects and Operations of Nexif Energy.

"Senvion has been a valuable partner in the progression of the Lincoln Gap wind farm through development, and has provided valuable support as we worked to optimize the contracting program," said Zeki Akbas, CEO of Nexif Energy's Australian business. ♪

Source: Senvion

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

## Siemens Gamesa lands a new contract for the supply of 34 MW in China

Siemens Gamesa has secured an order from the Guangdong Electric Power Design Institute for the supply of 34 MW in China.

Specifically, the company will supply 13 of its G114-2.625 MW turbines at the Hubei Energy Lichuan Zhonghao wind farm in Lichuan Qiyueshan, in the province of Hubei. Delivery of the turbines has already started with commissioning of the facility slated for December. Siemens Gamesa will also operate and maintain the turbines for the next five years.

The development is owned by the Hubei Energy Group, which has awarded Siemens Gamesa two other orders in the past (contracting 50 MW and 14 MW on those occasions).

Siemens Gamesa's Chinese presence dates back 30 years, during which time it has established itself as one of the leading players in the wind-power industry. To date, the company has installed more than 4,600 MW in the Asian giant. ↵



Siemens Gamesa will supply 13 of its G114-2.625 MW turbines at the Hubei Energy Lichuan Zhonghao wind farm in Lichuan Qiyueshan. (Courtesy: Siemens Gamesa)

Source: Siemens Gamesa

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

## Vestas introduces V120-2.0/2.2 MW turbine to China

In response to customer demand for a turbine for low and ultra-low wind conditions, Vestas recently introduced the V120-2.0/2.2 MW turbine to the Chinese market as a build-up to China Wind Power 2017, the annual trade fair in China's wind power industry. The V120-2.0/2.2 MW turbine combines Vestas' industry-leading innovation with the 2 MW platform's proven performance and will, for the Chinese market, be produced locally in Tianjin, offering leading annual energy production in low and ultra-low wind regimes. First deliveries are expected to start in the third quarter of 2018.

The V120-2.0/2.2 MW is Vestas' 2 MW platform's latest upgrade, adding among other things a 120-meter rotor made possible through innovative carbon technology that allows Vestas to increase blade length while keeping weight and loads down. The rotor has a 19 percent larger swept area compared to the V110-2.0



Vestas' V120-2.0/2.2 MW turbine. (Courtesy: Vestas)

MW, but rotor weight only increases around 8 percent. The V120-2.0/2.2 MW realizes up to 13 percent increased annual energy production (AEP) performance in comparison with the V110-2.2 MW.

“Projects in China are increasingly

moving to low and ultra-low wind areas in southeastern parts of the country, and the V120-2.0/2.2 MW turbine is specifically designed for such wind regimes,” said Vestas Group Senior Vice President and Vestas China President Kebao Yang. “To meet

customer demand and support the continued development of China's wind-power industry, Vestas is offering its most advanced products to China. We are confident in the Chinese market and will continue to be a reliable and trustworthy partner of Chinese customers."

"By further developing one of the industry's most proven platforms and utilizing our innovative design and control capabilities, Vestas is able to bring an efficient and reliable low weight, high hub height wind turbine to the Chinese market," said Anne Vedel, Vestas China vice president and head of technical sales management. "Combining this with Vestas' strong siting capabilities, we are serving our customers with business case certainty for the full lifetime of their wind park."

With more than 19,000 turbines installed across 45 countries on six continents since 2000, Vestas' 2 MW platform is the most widely applied turbine in the history of wind energy. Since its introduction, the 2 MW platform's Annual Energy Production has increased by 40 percent.

Vestas built China's first wind-power plant in 1986 and has installed about 5.4 GW of wind capacity in more than 16 provinces across the country over the past 30 years. ↴

Source: Vestas

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

## Siemens Gamesa inaugurates first blade plant in Africa and the Middle East

Siemens Gamesa Renewable Energy recently inaugurated its new rotor blade factory in Tangier (Morocco), an event chaired by Morocco's Minister of Industry, Investment, Trade and Digital Economy, Moulay Hafid El Alamy, and Markus Tacke, CEO of Siemens Gamesa.

The first blade plant of a wind-turbine manufacturer in Africa and the Middle East is ready to offer wind turbine blades "100-percent made in Morocco." To equip the SWT-DD-130 platform turbines (up to 4.2MW power rating), B63-10 blades with a length of 63 meters are produced for export to Europe, Africa, and the Middle East, as well as for local projects.

The plant is ready to produce other blade models in the future, which could reach up to 75 meters. These integral blades are based on licensed technologies and made of composite materials.

The plant of 37,500 square meters, which started production in April 2017, is in the industrial zone of Tanger Automotive City, about 35 kilometers from Tanger-Med port and ideally positioned between Europe and Africa.

Markus Tacke, CEO of Siemens Gamesa, explained the solid business rationale for this project.



Siemens Gamesa Renewable Energy's new rotor blade factory in Tangier. (Courtesy: Siemens Gamesa)

"This factory is good for our company and a solid business decision," he said. "We invest where we see strong business opportunities, and the opportunities here in Morocco are stronger than ever before. This location in Tangier provides us with direct access to some of the most important markets of tomorrow — here in Morocco, throughout the Middle East, in Europe, and in the Mediterranean region."

In the context of the Accelerated Industrialization Plan launched in April 2014 by the Ministry of Industry, Investment, Trade, and Digital Economy, the blade plant will create 600 jobs, as well as an

estimated number of 500 auxiliary jobs. The Minister of Industry, Investment, Trade and Digital Economy, El Alamy, underlined the importance of this project.

"The first wind-turbine blades in Africa and the Middle East will be produced in Tangier, and it represents a pride for the Kingdom," he said. "This pioneer project allows localizing value and announces the development of an ecosystem 'renewable energy industry,' which reinforces the strategic choices of Morocco, under the leadership of His Majesty King Mohammed VI, aimed at the development of a green economy."

A training center of 3,500 square meters was created to facilitate the knowledge transfer from Denmark to Tangier. The learning process ensures the complete transfer of the technical and process skill sets necessary to optimize the manufacturing process.

TMSA (Tanger Med Special Agency), responsible for the planning, development, and management of the Tanger Med Port complex and industrial platform, has shown great support and insight in the achievement of this project.

“The Siemens Gamesa project confirms the compelling offer of Tanger Med for multinationals,” said Fouad Brini, president of TMSA. “We are delighted about the uniqueness of Tanger Med’s value proposition, combining quality of the infrastructure and the perfect alignment between port

and industrial zone that met Siemens Gamesa’s expectations.”

“In Morocco, the demand for electricity increased at an average annual rate of 6.7 percent from 2003 to 2013,” said Ricardo Chocarro, Onshore Business CEO of Siemens Gamesa. “Thus, renewable energy is particularly attractive, offering a secure supply of domestically produced power and contributing to energy independence. Our commitment to the government and people of Morocco is clear: We will work together with you in meeting your energy challenges, today and in the future.”

The new blade factory plays an important role in contributing to Morocco’s national program to achieve production of electricity from clean energy to up to 52 percent by 2030, of which 20 percent

is generated by wind. The 850-MW project that will be built by the consortium Siemens Gamesa, Nareva, and ENEL represents a major milestone in this goal.

With 72 percent market share in Morocco, Siemens Gamesa delivered key wind-energy projects including Tarfaya (300 MW), Tangiers (140 MW), Essaouira (60 MW), and Haouma (50MW).

Siemens Gamesa is a market leader in Africa with more than 15 years of existence and 2.1 GW installed capacity, in countries such as Morocco, as well as in Algeria, Egypt, South Africa, Tunisia, Mauritania, Kenya, and Mauritius Islands. ↴

Source: Siemens Gamesa

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

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