



The SG 3.4-132 onshore wind turbine is the most profitable product in its segment. (Courtesy: Siemens Gamesa)

MANUFACTURING

Siemens Gamesa awarded 28-MW order for a Voltalia project

Siemens Gamesa Renewable Energy recently signed its third contract with Voltalia in Brazil to supply the wind project Ventos da Serra do Mel 2 (VSM 2).

The scope of the contract with Voltalia, recognized international player in renewable energy with a presence in 18 countries, includes the supply of 36 units of the SG 3.4-132 wind turbine model with a flexible power rating of 3.55 MW for the VSM 2 wind complex in Rio Grande do Norte, northeastern region of Brazil, for a combined total nominal capacity of 128 MW. Commissioning of VSM 2 is planned for 2020.

This is the third contract signed with Voltalia in Brazil following Vila Acre I (27 MW, 13 units of SG 2.1-114) and Ventos da Serra do Mel 1 (163 MW, 47 units of SG 3.4-132). In total, Siemens Gamesa has been awarded a total of 318 MW by Voltalia in Brazil since 2016.

“Our customers’ trust is fundamental to enable and drive our growth strategy, and we are very pleased to have received this third order from Voltalia,” said Roberto Prida, managing director Onshore Brazil. “We feel very confident that together we are advancing wind power as the most competitive generation technology in Brazil.”

“Siemens Gamesa is a trusted partner for the supply of wind turbines and we are glad to continue our partnership with them to build new projects,” said Robert Klein, CEO of Voltalia

Brazil. “We have a great confidence in Siemens Gamesa’s equipment and capabilities.”

Since 2012, Siemens Gamesa has provided more than 3.1 GW (more than 1,500 units) of output capacity for close to 60 project sites across Brazil. The company has a strong footprint in the country consisting of manufacturing, service, and offices.

The SG 3.4-132 onshore wind turbine is the most profitable product in its segment, featuring optimal Levelized Cost of Energy (LCOE) for medium and high winds, rotor diameter of 132 meters, a flexible power rating of 3.3-3.75 MW depending on the project requirements, and low-risk based on proven technologies and enhanced performance with the highest levels of reliability.

MORE INFO www.voltalia.com

MANUFACTURING

Vestas introduces innovative modular platform

Vestas has been at the frontier of wind energy for 40 years, introducing market-leading wind energy solutions that have driven down the cost of energy and taken wind energy from niche to mainstream. Vestas recently introduced the EnVentus wind-turbine platform, which represents another significant step forward in the continuous efforts to lower the leveled cost of energy and accelerate the global transition to a more sustainable energy mix.

The EnVentus platform will initially be available in two new variants: the V150-5.6 MW and V162-5.6 MW, together covering low-, medium-, and high-wind conditions. Based on advanced modular design, EnVentus supports Vestas' vision to become the global leader in sustainable energy solutions and provides a wider range of turbine configurations that can better meet evolving customer needs.

EnVentus represents the next generation of wind-turbine technology and connects four decades of wind-energy innovation with the experience and

knowledge represented by Vestas' 100 GW of installed wind turbine capacity. The new platform demonstrates the benefits of Vestas' industry-leading investments in R&D and unmatched volume of wind data.

"EnVentus is a great achievement by everyone at Vestas that allows us to meet customers' increasing needs for customization and continuous reduction of the cost of energy," said Anders Runevad, Vestas President and CEO. "Our relentless focus on delivering industry-leading revenue and profitability the past years has given us the resources to develop a new platform built on our world-class R&D. Following our 2018 order record and 100-GW milestone, EnVentus is another important step in Vestas' journey to become the global leader in sustainable energy solutions."

As Vestas' first platform introduction since 2011, EnVentus combines proven technology and system designs from Vestas' 2-MW, 4-MW, and 9-MW platforms with advanced modularity, building a foundation that reliably and efficiently lowers the cost of energy. The journey towards a modular platform was initiated in 2012 and is expected to create increased scale advantages and opportunities to optimize current and future value chain needs, such as design cycles and transportation.

"Vestas has pioneered wind energy since 1979 and, by introducing EnVentus and its first two variants, we connect heritage with innovation to underline our technology leadership," said Anders Vedel, Vestas chief technology officer.

"With the introduc-

tion of a platform built on advanced modularity, we increase our ability to provide customized solutions while ensuring value chain optimization. I'm incredibly proud of everyone in Vestas who has been part of developing our new platform and variants, once again showing Vestas has the most passionate and innovative minds in the industry."

The platform's first two variants: the V162-5.6 MW and V150-5.6 MW will be globally applicable and are added to the wide range of Vestas' existing 2-MW and 4-MW platform turbines, giving customers an unmatched combination of turbines to harness wind in any specific location. The turbines feature a full-scale converter, capable of meeting complex and differing grid requirements in local markets. The full-scale converter is matched by a permanent magnet generator for maximum system efficiency and balanced by a medium-speed drivetrain.

With a swept area of more than 20,000 square meters, the V162-5.6 MW offers the largest rotor size in onshore wind to achieve industry-leading energy production. When paired with a high capacity factor, the V162-5.6 MW offers 26 percent higher annual energy production than the V150-4.2 MW, depending on site-specific conditions. It is primarily relevant in low-to-medium wind conditions, but it also has extensive applicability in high average wind speeds depending on site-specific conditions. The first V162-5.6 MW prototype is expected to be installed in mid-2020, with serial production later that year.

The V150-5.6 MW takes Vestas' existing 150-meter rotor and applies it to higher wind speeds and extended market applicability. When combined with its higher generator rating, the turbine increases the annual energy production potential by 30 percent compared to the V136-4.2 MW, depending on site specific conditions. It is primarily relevant in medium to high wind conditions. The first V150-5.6 MW prototype is expected to be installed



The V150-5.6 MW is one of two variants for the EnVentus platform. (Courtesy: Vestas)

in the second half of 2019, while serial production is scheduled for mid-2020.

Initially, the new variants are targeted at the onshore market, but may have offshore applicability.

The name EnVentus combines “energy,” “environment,” “invent,” and the Latin word for wind “ventus” to encompass the company’s pioneering and innovative heritage within wind energy and aspiration to lead the global transition to a more sustainable energy system.

MORE INFO www.vestas.com

► CONSTRUCTION

U.S. installs 5.9 GW in fourth quarter of 2018

The U.S. wind sector installed 5.9 GW of new capacity in the fourth quar-



About 16.5 GW of wind projects were under construction at the end of 2018, with a further 18.6 GW in advanced development. (Courtesy: New Energy Update)

ter of 2018 to bring the total for the year to 7.6 GW, an 8 percent increase on 2017, the American Wind Energy Association (AWEA) said in a report published January 30.

Wind operators completed 909 MW of partial repowering projects in the fourth quarter for an annual repowering total of 1.3 GW, AWEA figures showed.

The U.S. is forecast to install 10.9 GW wind capacity in 2019 — the highest level since 2012 — as developers race to meet production tax credit (PTC) deadlines, the Energy Information Administration (EIA) said in its latest Short-Term Energy Outlook published in January. The wind installation forecast represents a 3-GW increase on the 2019 projection set out in EIA’s 2018 Annual Energy Outlook.

More than half of the new wind capacity additions will be in Texas, Iowa, or Illinois, and most of the capacity will come online toward the end of the year, EIA said.

About 16.5 GW of wind projects were under construction at the end of 2018, with a further 18.6 GW in advanced development, AWEA said in its report. The combined total of 35.1 GW was up 22 percent year-on-year. About 20 percent of this activity was in Texas while other prominent states included Wyoming, Iowa, South Dakota, and New Mexico, AWEA said.

GE Renewable Energy reclaimed the top spot for turbine manufacturers in 2018, installing 40 percent of U.S. wind turbines by capacity. Vestas installed 38 percent of capacity while Nordics USA held 11 percent of the market and Siemens Gamesa held 8 percent.

Most of the turbines installed were of capacity between 2 MW and 3 MW while 24 percent were more than 3 MW, AWEA said.

In October, GE unveiled a new 5.3 MW turbine that incorporates 77-meter blades and hub heights of up to 160 meters.

MORE INFO newenergyupdate.com

► CONSTRUCTION

Global Wind Service to assemble towers for East Anglia ONE

Siemens Gamesa Renewable Energy has contracted wind-turbine installation and service company Global Wind Service to assemble 102 towers for East

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