

News release from Vestas Wind Systems A/S

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New tower enables increased power production at low wind sites

Vestas has launched the Large Diameter Steel Tower, a cost effective solution to increase tower height for 3 MW turbines to over 140m. The new solution boosts annual energy production on low wind sites by up to eight per cent.

The Large Diameter Steel Tower (LDST) - an innovative solution patented by Vestas - enables cost effective taller towers to take advantage of stronger wind conditions at higher hub heights for the V117-3.3 MW and V126-3.3 MW turbines, increasing annual energy production and therefore revenue for customers.

On a typical site with a mean wind speed of 6.5m/s, the LDST will increase annual energy production by up to eight per cent at a hub height of 137 meter for the V126-3.3 MW compared to a hub height of 117 meter for the conventional steel tower.

Increasing the tower heights increases the force exerted by the wind on the base of the tower. Typically, this requires the use of thicker steel plates. The LDST instead increases the diameter of the bottom section, increasing the strength while using little extra steel, reducing production costs, and ensuring lower cost of energy.

“Vestas’ product development strategy is to continue to optimise our technology in order to lower the cost of energy for our customers,” explains Chief Technology Officer Anders Vedel. “The LDST is the most cost efficient solution in the industry to meet the demand for increased tower height for the 3 MW turbines.”

Solving the transport challenge

The increased diameter of the tower presents a challenge in terms of transportation. Vestas has solved this by delivering the bottom tower section in three lengthways segments. These can easily and cost effectively be transported on a flatbed truck and reassembled on site using vertical flanges to ensure strength.

Vestas is the only manufacturer able to produce the LDST and has over 25 years of experience with steel towers. A prototype for the V112-3.3 MW was delivered in Germany in 2013. Vestas has already received firm orders for over fifty turbines using the LDST technology.

The LDST will be available in 137 meters for the V126-3.3 MW and 141.5 meters for the V117-3.3 MW.

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About Vestas

Every single day, Vestas wind turbines deliver clean energy that supports the global fight against climate change. Wind power from Vestas' more than 51,000 wind turbines currently reduces carbon emissions by over 60 million tons of CO₂ every year, while at the same time building energy security and independence.

Vestas has delivered wind energy in 73 countries, providing jobs for around 16,000 passionate people at our service and project sites, research facilities, factories and offices all over the world. With 62 per cent more megawatts installed than our closest competitor and more than 60 GW of cumulative installed capacity worldwide, Vestas is the world leader in wind energy.

We invite you to learn more about Vestas by visiting our website at www.vestas.com and following us on our social media channels:

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