

Hamburg, 14 September 2015

## **iSpin achieves increase in energy yield of 7.7 percent at the Sustrum/Renkenberge wind farm**

**The Danish-Swiss wind energy optimiser ROMO Wind installed its patented wind measurement technology iSpin, which measures wind directly at the spinner, in 16 Nordtank NTK 1500/64/80 turbines in the Sustrum/Renkenberge wind farm (Germany). The results of the measurements: the yaw misalignments in the turbines were between 11.8 and 21.7 degrees. After this had been rectified, yield increased by 7.7 percent on average.**

In the spring of 2013, the operators of the wind farm, BVT Windpark Sustrum/Renkenberge GmbH & Co. KG, had the iSpin System installed in three turbines on a trial basis. Measurements showed yaw misalignments of between 9.3 and 12.5 degrees. After the yaw misalignments were corrected, the yield from the turbines was on average 3.7 percent higher.

The system was consequently extended to a further 16 turbines in the wind farm. When carrying out the measurements – between autumn 2014 and summer 2015 – ROMO Wind also found significant yaw misalignments of between 11.8 and 21.7 degrees. The result after rectifying the yaw misalignment: an average of 7.7% increase in yield.

“Altogether, the measurements taken with iSpin provided us with an annual additional revenue of 275,000 euros, with the 19 turbines producing on average 182,500 kilowatt hours annually,” stated Dr Claus-Eric Gärtner, Managing Director of BVT Windpark Sustrum/Renkenberge.

Furthermore, according to Karl Fatrdla, Head of Sales at ROMO Wind, exchanging the wind vane on one of the turbines that had already been measured and rectified showed that even slight changes could once again lead to yaw misalignments. “This shows that continuous monitoring of wind data is essential to profit maximisation,” he said.

The ROMO Wind iSpin system uses proven ultrasonic technology to measure wind where it first hits the wind turbine – directly at the spinner. In this way, operators gather accurate information on the wind conditions in front of the rotor. This enables them to check

whether their turbines are aligned for the best possible yield. At the same time, the data allow for optimised wind farm management and load reduction, which prolongs the total life of the turbines.

Up to now, wind direction and speed have usually been measured behind the rotor on the wind turbine's nacelle. The downside of this technique: turbulence from the rotor can lead to inaccuracies.

The iSpin technology was developed by the Technical University of Denmark (DTU) and tested continuously from 2004, until it came onto the market in 2013. iSpin is a wind measurement technology which is not dependent on a specific manufacturer, and is designed for permanent installation. The iSpin system was incorporated into the international IEC 61400-12-2 standard for measuring the absolute power curve.

**ROMO Wind at HUSUM Wind from 15 to 18 September 2015: stand 3B.08**

**About ROMO Wind:**

ROMO Wind AG is a Danish-Swiss technology company supported by renowned investors and shareholders such as Yellow & Blue and ABB. ROMO Wind specialises in optimising the productivity of wind turbines, reducing loads and accurately calculating on-site wind conditions. The company uses patented iSpin technology to this end. ROMO Wind has its headquarters in Zug, Switzerland and has regional teams in Denmark, Germany, Spain, Italy, Great Britain and Ireland.

Further information on iSpin Technology can be found at: [www.ispin.info](http://www.ispin.info)

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