

CASE STUDY 3

670 MW Windfarms, Trondheim Norway, Wind Resource Assessment



Very proud to inform that Kintech Engineering supplied wind resource equipment for what will now become Europe's largest onshore wind project to date - **1 GW windfarm near Trondheim.**

Kintech Engineering was contracted by a consultant to supply wind measurement instrumentation including data loggers, remote communication, and sensors for the sites listed here below:

Ytra Vikna 130 MW

Roan 300 MW

Sømarksfjellet 150 MW

Harbaksfjellet 90.75 MW

Equipment used for this wind resource assessment campaign:

- Data logger EOL Zenith incl. GSM/GPRS remote communication
- Thies First Class anemometers with Measnet calibration
- Thies wind vanes
- Setra pressure sensors
- Galltec temperature & humidity sensors

About the EOL Zenith data logger:

The EOL Zenith data logger collects data in compliance with IEC61400-12 for wind and solar resource assessment when maximum performance, reliability, and ease of use is a must. It is the perfect combination of data logger technology coupled with cutting-edge remote data collection and management software.

- 1Hz sampling rate (complying with IEC61400-12)
- Advanced sensor error diagnosis
- Live real-time data (bi-directional communication)
- GPS time stamp and synchronization
- Automatic file download
- Multiple data delivery and forward options
- 10 min. averaging interval (user selectable)
- Data encryption and 2 level password protection
- No interface cards required
- No programming required
- SCADA/Modbus capability (option)
- Ultrasonic capability (option)
- Met mast management tool (EOL Manager)



Together with the lattice mast installer and the consultant we spend a complete day visiting all the potential sites for wind resource assessment.

Ytre Vikna

Ytre Vikna Wind Park is located in the Municipality of Vikna, and has been in operation since October 2012. The total installed output is 39 MW, and the annual production is approx. 120 GWh. Kintech Engineering was contracted to supply all the equipment and installation of the met masts for the second stage of the development.

The extremely favorable wind conditions results in a design plan for another 40 wind turbines scheduled for installation in the second stage of development.

Roan

Roan Wind Park is located entirely within the Municipality of Roan and its licensed capacity is an installed output of 300 MW and the expected annual production is approx. 960 GWh.

Sømarkfjellet

Sømarkfjellet Wind Park is located in the municipalities of Osen and Flatanger. The project area covers 9.3 km² and was licensed in 2013 for an installed output of up to 150 MW. The expected annual production is 465 GWh.

Harbaksfjellet

Harbaksfjellet wind park is located in the Municipality of Åfjord. The project area covers 10.1 km².

CASE STUDY 3 | TRONDHEIM NORWAY, WIND RESOURCE ASSESSMENT



Top anemometer. Thies First



All transport was done by helicopter.



Metal cabinet prepared with data logger and battery backup.



View from helicopter.

Last modified: 04.04.2017