

Wind Speed Monitoring

INVESTMENTS

To optimise your investments, increased certainty in wind assessments early on in the wind turbine cycle is critical.

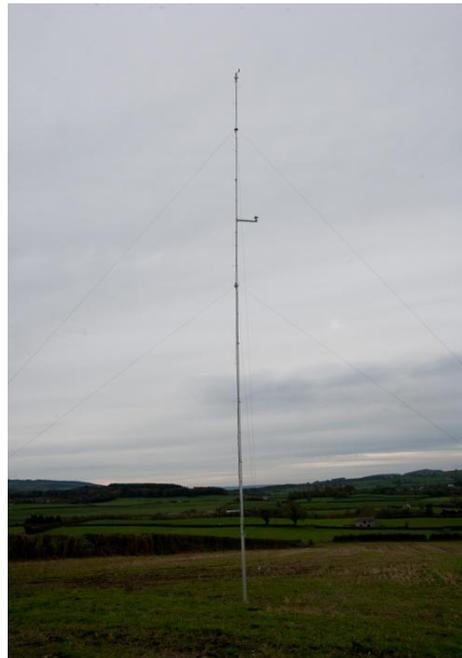
BENEFITS

Performs long term, unattended data collection

Provides certainty for banks and funders

Increased certainty of wind resource assessments for specific sites to aid your business plan

Time-stamped data is recorded allowing historical analyses

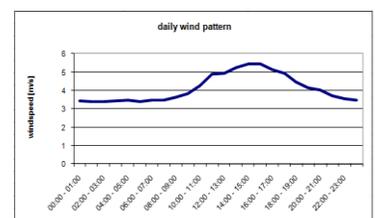
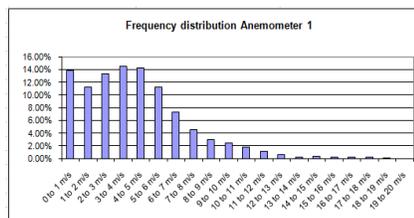
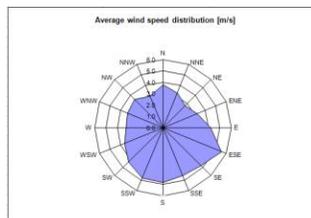


What we offer

If you need to measure wind speed and wind direction to help determine whether your site is a good candidate to harvest wind power, Si Energy Ltd can help you.

We offer high-speed data loggers for monitoring wind turbine power and performance. To complete your system, we also offer a wide range of towers, sensors, and software that can be customized for your wind assessment or wind turbine performance needs.

Our wind-monitoring-system of 10 and 15 m height which is equipped with two anemometers, one wind vane, temperature sensors, solar charger and a data logger. The monitoring mast and ready-to-install monitoring equipment can be erected within 45 minutes. After erection and putting into operation, the system immediately and automatically starts recording the relevant wind speed (in 10-minutes-averages) and wind direction data. After at least 3 months of monitoring, the data stored on the memory card of the data logger is retrieved and analysed. The data obtained is extrapolated to 12 months based on reference data from nearby weather stations using evaluation software. The same software can be used to evaluate the economic profitability of different wind-system configurations using two reference points for wind shear calculations giving greater accuracy at different heights



WIND ASSESSMENT

To help you deliver accurate wind assessments SI Energy Ltd has invested in specialised wind technology that

Combines cutting edge science and super computer technology

Uses prediction models incorporating observations from satellites, aeroplanes, ground stations and radar

Generates core wind analysis extending back 20 years

Provides site specific data at hub height
Supplies P50 mean and standard deviation values for wind speeds

Wind Speed Monitoring – Option 2



Virtual Wind Monitoring

Using a virtual mast helps you select the best onshore wind turbine site with increased certainty, offering clear, cost-effective and reliable site specific analysis to help you make informed decisions for your wind turbine investments.

Assessments

To supply you with a detail overview your virtual mast report will contain wind climatology for each site, including, annual and monthly mean wind speed, annual and monthly wind rose and frequency table showing speed and direction, wind speed Weibull distribution and probability of exceeding wind speed threshold, by month.

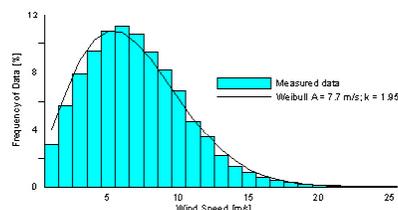
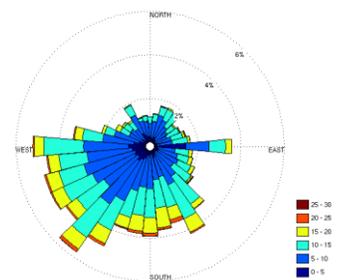
Results give you a W90 figure which is a 90% Guarantee of wind speed for 20 years.

Benefits of wind speed measurement

Detailed and accurate information for complex onshore terrain and sites

Enables quicker decision making as you can receive wind resource estimates in days rather than months

Helps optimise your wind turbine planning and performance later in the development cycle as on-site monitoring data becomes available



SiENERGY
Ltd