

Wind energy technology innovator SENSEWind has successfully completed a demonstration of their SENSE Up-Tower system. The Self Erecting Nacelle and Service System radically transforms how next-generation turbines are installed and serviced making wind energy projects cheaper, quicker and safer. A video of the demonstrator site tests is available on the SENSEWind website (<https://sensewind.com/sense-up-tower-demonstration-success-video/>).

The predicted growth in demand for wind energy requires the use of super-sized wind turbines and deployment on more challenging sites. Next-generation turbines and more difficult sites make current installation methods uneconomic or impractical. By simplifying operations, the SENSE system reduces costs during development; construction; operations; and increases project revenue through higher availability throughout the life of a project. Independent analysis has shown that the SENSEWind system can cut LCOE by as much as 12%.

The SENSEWind system transforms the installation of wind turbines for both onshore and offshore projects by eliminating the need for large expensive cranes and crane vessels. SENSEWind equipment is modular and only requires standard, readily available cranes and vessels. By automating the heavy lifting and positioning at height, it also improves safety, whilst reducing technical and programme risks.

The system has the added benefit that during operation, it can be used in reverse to allow rapid exchange of major components and complete rotor nacelle assemblies. Inspections, repairs and maintenance of blades and towers are also quicker and easier.