



CASE STUDY

TECHNICAL DUE DILIGENCE OF THE WAARPOLDER WIND FARM

Through Document Reviews and Technical Due Diligence services, SGS helped evaluate the condition of the Waarpolder Wind Farm in The Netherlands. Since a minor failure in a key component of the wind turbine can cause downtime and severe losses, regular Condition Monitoring throughout the turbine's operational lifetime is crucial to reducing costs and detecting failures as early as possible.

PROTECT WIND FARM INVESTMENT THROUGH INDEPENDENT CERTIFICATION AND INSPECTION

To protect wind farm project investments and assure the quality of project deliverances, owners, investors, and insurance companies are increasingly looking for an independent certification and inspection company to verify that the wind farm will consistently perform throughout its intended lifetime.

The Waarpolder Wind Farm owned by ING Lease BV, consists of 19 Nedwind NW31/3/250 turbines, each with a capacity of 250 kW, and generates almost 9,000 MWh annually. It is situated in the Northwest of the Netherlands and has been operational since 1997.

TECHNICAL DUE DILIGENCE BY SGS

In autumn of 2005, SGS Wind Energy Competence Centre performed Technical Due Diligence to evaluate the condition of the Waarpolder Wind Farm, including the review of relevant documentation and onsite inspections.

The Document Review comprised the evaluation of type certificates and maintenance manuals. In addition, maintenance reports were also reviewed to verify that the operator was following the maintenance programme. For the assessment of the reliability of the wind farm, it was essential to analyse the previous inspection reports and the current site inspection reports.

The outcome of these document reviews was the technical evaluation of the technical repair alternatives suggested by the client, including the inclusive technical assessment of possible re-powering at the site with new larger turbines, with a particular focus on technical feasibility. With the findings and reports of the SGS experts, ING Lease BV was able to decide on their future plans for the Waarpolder Wind Farm.

A number of site inspections rounded up the evaluation, including surface damage inspection of the rotor blades, condition survey of the drive train, functional checks of the safety devices, sensors and braking systems, etc.

CASE STUDY

Since a minor failure in a key component of the wind turbine can cause downtime and severe losses, regular condition monitoring throughout the turbine's operational lifetime is crucial to reducing costs and detecting failures as early as possible. To address this, SGS provides comprehensive Condition Monitoring services to wind farm owners, investors and operators.

As the world's leading inspection, verification, testing and certification company, SGS is the preferred international partner for onshore and offshore wind farm projects. Our strength comes from our experienced staff that has the requisite technical expertise in wind technology. We are committed to providing a fully comprehensive service portfolio for the Wind Energy Sector, designed to meet the specific requirements of your company. Our aim is to achieve 100% success in helping our clients meet their availability targets.

SGS IS THE GLOBAL LEADER AND INNOVATOR IN INSPECTION, VERIFICATION, TESTING AND CERTIFICATION SERVICES. FOUNDED IN 1878, SGS IS RECOGNISED AS THE GLOBAL BENCHMARK IN QUALITY AND INTEGRITY. WITH 59,000 EMPLOYEES, SGS OPERATES A NETWORK OF OVER 1,000 OFFICES AND LABORATORIES AROUND THE WORLD.