SGS Wind Energy Services provided Technical Due Diligence on the Fuhrländer 1.5 MW wind turbine technology for Sky Power Corp., Canada’s leading independent renewable energy company.

**PROJECT INVESTMENT PROTECTION THROUGH INDEPENDENT CERTIFICATION AND INSPECTION**

To protect wind farm project investments and assure the quality of deliveries, owners, investors and insurance companies look for an independent certification and inspection company to verify that the wind farm or wind turbine will perform successfully throughout its intended lifetime. A minor failure can cause unacceptable down time and loss.

AAER Wind Energy have partnered with Fuhrländer to manufacture the Fuhrländer 1.5 MW wind turbine on a license in Canada. To identify and minimise technical risks in the process of buying 1.5 MW wind turbines manufactured by AAER, Sky Power Corp., Canada’s leading independent renewable energy company awarded the contract to SGS to carry out Technical Due Diligence for the wind turbine technology.

The Technical Due Diligence was coordinated and finalised by SGS Competence Center Wind Energy in Hamburg, Germany. The variety of tasks related to the Technical Due Diligence required an experienced, global team. This team of experts was mainly responsible for the feasibility and timeline of the project, review of the management and engineering capability, fatal flaw analysis and Due Diligence for all suppliers and supplier agreements.

The Technical Due Diligence process was carried out in three sequenced steps.

**PHASE I – DESIGN BASIS AND WIND TURBINE EVALUATION**

SGS’s experienced wind energy technology experts reviewed the design basis and certification status which was carried out at AMSC Windtec. All required documents were made available and the findings were reported by the SGS experts.

**PHASE II – CONTRACT AND SPECIFICATIONS REVIEW**

In Phase II, SGS examined the capabilities of AAER Wind Energy, the Canadian wind turbine manufacturer, to manufacture the wind turbines. Furthermore the contracts and warranties as well as the acceptance and reliability agreements of each supplier were evaluated. In this case special focus was put on the Fuhrländer turbine specifications and their applicability to operate in the Canadian climate.
CASE STUDY

PHASE III – PROCESS QUALITY AUDIT OF SUPPLIERS
In the last phase, a Process Quality Audit of each supplier was performed. These audits were carried out in Germany, Poland, Austria and Canada. The main focus of the audits was the verification of the quality plan, the flow process chart, the documentation used for manufacturing and assembly and the internal work instructions and training.

Upon conclusion of each individual Phase, SGS reported on the outcome of the Technical Due Diligence process to Sky Power Corp. The final result was summarised in a risk assessment matrix and an action list enabling Sky Power to plan further steps in negotiation with AAER.

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 MORE THAN 70,000 EMPLOYEES, SGS OPERATES A NETWORK OF OVER 1,350 OFFICES AND LABORATORIES AROUND THE WORLD.