



Improved Wind Turbine Pitch Drive Design Powers Up Savings



Overview

PSI Repair Services resolved a widespread issue of wind turbine pitch drive failures [275 in one year] for a leading clean energy company.

Root Cause

Eighty-five percent of the pitch drive failures were due to capacitor breakdowns. The capacitors overheated internally and expelled electrolytic fluid, destroying the driver board. In addition, transistor failures were due to improper switching frequencies and speeds.

Solution

PSI Repair Services designed a new and improved driver board, installed upgraded capacitors, and enhanced the transistors to match the switching frequency; eliminating all of the problems.

Results



Cost-savings of approximately \$417,000 on labor, material and lost revenue.

81%

Reduction in year-over-year failures, using a 4-year analysis.