

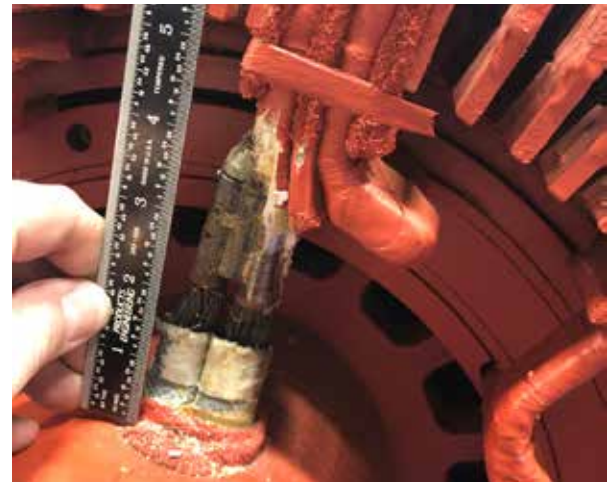
TCO CASE STUDY

Wind Power Industry

Connection Ring Solution Reduces Downtime and Maintenance Costs

THE CHALLENGE

A wind farm was experiencing premature failures on their wind turbine generators. After an initial inspection of a particular generator, it was determined that the rotor connection had failed prematurely. Wind turbines that utilize DFIG generators (wound rotors) have a 61% failure rate in the rotor connection due to the inability to accommodate centrifugal expansion of the rotor winding/banding during operation.



Centrifugal expansion is a common problem.

THE SOLUTION

IPS recommended installing our patent pending engineered upgraded rotor connection. This upgraded rotor connection accounts for the centrifugal expansion of the rotor winding/banding during operation preventing low cycle fatigue and eliminating main lead failure modes. The upgraded rotor connection life expectancy is 2+ times longer than the OEM, but also minimizes downtime and maintenance costs since the upgrade can be performed up-tower.



The IPS engineered upgraded rotor connection is designed to accommodate stretching connectors without fatigue.

RESULTS

Due to the IPS engineered upgraded rotor connection solution, the IPS Wind Team was able to repair the failed generator up-tower and eliminate crane and replacement generator costs. After installation and repair costs we saved this customer an estimated \$90,000 - \$120,000.

ESTIMATED SAVINGS:
\$90,000 - \$120,000