# Hydropower Turbine Generator Monitoring

# Torque Transducer

## Industry: Infrastructure

### Summary

**Customer Challenge**

A customer wants to monitor and detect any turbine generator faults in their hydroelectric power plant located on a river.

**Interface Solution**

Interface's solution is to use the T2 Ultra Precision Shaft Style Rotary Torque Transducer and attach it to the turbine generator with Interface's Shaft Style Torque Transducer Couplings. When water from the river pushes through the penstock to the outflow, it moves the turbine blades, creating electricity through the generator shaft. Torsion measurements can be graphed and logged with the 9850 Torque Transducer and Load Cell Indicator- catching any unusual fluctuations and vibrations.

**Results**

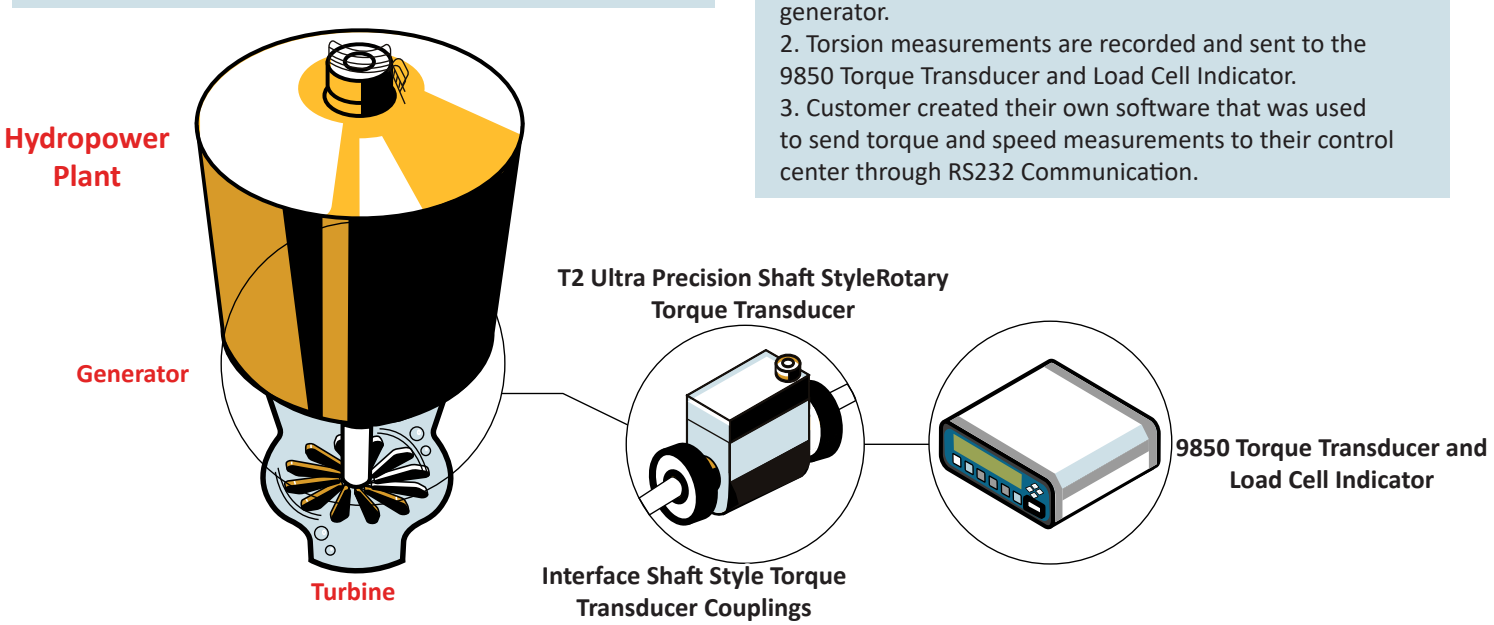
The customer was able to monitor, graph, and log the torque measurement results of the turbine generator.

### Materials

- T2 Ultra Precision Shaft Style Rotary Torque Transducer
- Interface Shaft Style Torque Transducer Couplings
- 9850 Torque Transducer and Load Cell Indicator

### How It Works

1. The T2 Ultra Precision Shaft Style Rotary Torque Transducer is installed with Interface's Shaft Style Torque Transducer Couplings onto the hydropower turbine generator.
2. Torsion measurements are recorded and sent to the 9850 Torque Transducer and Load Cell Indicator.
3. Customer created their own software that was used to send torque and speed measurements to their control center through RS232 Communication.

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FORCE MEASUREMENT SOLUTIONS
7418 East Helm Drive, Scottsdale, AZ 85260 ▪ 480.948.5555 ▪ interfaceforce.com