The nuclear power industry is struggling to balance rapidly increasing demand with the costs and safety measures required to support an aging equipment base. 

**Challenges:**

- **8 Reactors Each Producing 800 Megawatts**
- The nuclear power industry is struggling to balance rapidly increasing demand with the costs and safety measures required to support an aging equipment base.
- Scheduled maintenance activities were identified as a source for efficiency gains.
- Need to increase availability.
- More scheduled maintenance activities than capacity for timely execution.
- Unable to proactively identify maintenance inefficiencies.

**Solution:**

**Context & Priorities**

Work with company’s existing data:

- Historical asset health data (MTBF, MTTR, Pareto, and failure analysis)
- Maintenance performance data (inspection, calibration, test results)
- Current asset health data (operator rounds, SmartSignal, OSIsoft, online monitoring, CBM)

**System & Processes**

- Engineering
- HSEQ
- ERP
- Maintenance
- Operations

**End-to-End: Connect Assets, People, and Systems**

Using APM, it became possible to identify and implement—on a continuous basis—maintenance-related work-process improvements to increase availability while continuing to meet the company’s high safety standards.

**Results:**

Through a continuous regime of identifying maintenance-related work process improvement opportunities using APM:

- Utility increased the lives of its existing assets
- Utility improved plant reliability and availability
- Utility increased the amount of power pumped into the grid
- One unit surpassed 500 days of continuous operation and provided over 15% of region's electricity

**The Benefits of APM:**

- **2-6%** Increased Availability
- **5-10%** Inventory Cost Reduction
- **10-40%** Reduction in Reactive Maintenance
- **3-40%** EH&S Incident Reduction
- **5-25%** Gain in Employee Productivity
- **5-25%** Reduction in IT Lower Total Cost of Ownership

GE Digital's APM is the only solution that can combine real-time data with human experience, operating parameters, analytics, and connectivity to create intelligent asset strategies that continuously improve over time.