



How a Major Utility Company

IMPROVED POWER AVAILABILITY BY 30%

{ While Lowering Average Costs by 30% }

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)



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.

- Define What is Critical
- Develop Initial Strategy
- Define How to Make Monitoring Data Collection Intelligent



New Intelligent Strategies

Informed Decisions



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
- Utility was the top-performing multi-unit CANDU plant in the world
- One unit surpassed 500 days of continuous operation and provided over 15% of region's electricity

The Benefits of APM:



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.