



FLEET RELIABILITY AT SCALE

How Power Generators are Cutting Maintenance Spend and Downtime

\$1.5 Million Annual Savings With predictive diagnostics

1-3% Forced Outage Rate Reduction Across the fleet

50% Less Time on Investigations Monitoring & root cause analysis

Power generation leaders are under compounding pressure: load growth, energy transition, aging assets, and workforce constraints — all at once. Forced outages and derates are eroding margins. Maintenance budgets are driven by schedules and emergencies, not actual asset condition. The generators gaining ground are those who have made the shift from reactive and time-based maintenance to continuous, fleet-wide condition intelligence.

Where Reliability Breaks Down

Lost generation & revenue

Forced outages and derates caused by failures that condition data could have flagged weeks — or months — in advance.

Unpredictable maintenance cost

Budgets built on fixed schedules and emergency work orders, not actual asset health. Emergency repairs cost multiples of planned maintenance.

No fleet-level learning

Reliability work done site-by-site and event-by-event, with no ability to identify patterns or replicate what works across the fleet.

Knowledge walking out the door

Experienced engineers retiring faster than new talent can absorb what they know. Every departure is a reliability risk.

What the Shift to Condition-Based Monitoring Delivers

Detect degradation before it becomes downtime

Catching failure signals weeks or months earlier than reactive or calendar-based approaches.

Replace emergency work with planned interventions

Acting on condition signals rather than waiting for scheduled maintenance windows or equipment failures.

Standardize monitoring logic across units, plants, and asset types

Building a single analytics layer that learns across the entire fleet.

Codify engineering expertise into reusable models

So institutional knowledge scales beyond the individuals who built it.

How Seeq Enables Fleet-Wide Condition Monitoring

Connect & Unify Fleet Data

PI System, cloud platforms, CMMS, and commercial data unified. No pipeline required

Operationalize Maintenance

Alerts and health scores delivered to ops, engineering, and management.

Build & Deploy Models

Engineers build failure mode models and health KPIs in Seeq's no-code workbench.

Scale Across the Fleet

Proven models extend to similar units fleet-wide. No rebuilding from scratch.

Real Results. Across Every Generation Type.

How leading generators — conventional and renewable — are operationalizing fleet-wide condition monitoring with Seeq.

RWE

£2.6M

Forced outage
costs avoided

RWE Generation

Europe · 31+ Power Plants · 15.7 GW Gas-Fired Capacity From Calendar-Based to Value-Based Maintenance

As RWE's gas plants took on more variable operation in support of a growing renewable portfolio, reliability became a stated corporate imperative. Traditional maintenance strategies were no longer adequate at the scale of a 31-plant, 15.7 GW fleet. Unplanned shutdowns from sensor failures, igniter faults, and deteriorating components were costing millions in lost generation. RWE partnered with Seeq to build a value-based maintenance program — connecting PI System, SAP, CMMS, and commercial data into a unified analytics environment, then deploying predictive failure models across gas turbines fleet-wide. Today, RWE runs 70+ active data feeds and hundreds of monitored failure modes, with close to 100 engineers trained as model contributors in Seeq.



Meridian.

90 Days

Kickoff to live
CBM Production

Meridian Energy

New Zealand · Largest Electricity Generator · 100% Renewable Portfolio

From Routine-Based to Condition-Based Maintenance — in 90 Days

Meridian Energy — New Zealand's largest electricity generator — operates a renewable fleet spanning hydro, wind, and solar. To reliably meet growing demand while managing aging infrastructure, Meridian needed to move beyond fixed inspection intervals and reactive responses. They built a centralized Industrial AI and analytics environment on Seeq, unifying PI System data, Databricks models, and no-code workbench capabilities into a single workflow connecting engineering, reliability, data, and maintenance teams. In 90 days from kickoff, Meridian had live condition-based maintenance use cases in production — covering SF₆ leak monitoring, brake service forecasting, and turbine bearing health — delivering measurable improvements to asset reliability and maintenance cost.