Plant Performance Service from GE Digital

Optimized power and fuel efficiency made simple

Plant Performance Service is a turnkey outsourced solution for optimizing plant operational, thermal and economic performance. GE experts monitor, analyze and guide your path to improve heat rate, capacity, turndown and startups – all while minimizing fuel costs. No software purchase or expanded staffing is required.

Renewable energy is changing both the operating models and profitability pressures of traditional power plants. Maintaining and improving plant efficiency and cost factors across today’s fluctuating operation modes and loads demands deep analytical domain expertise coupled with extensive experience on the equipment and O&M processes.

GE’s turnkey outsourced Plant Performance Service offers you just that – without the need to expand staffing or acquire new technology. GE Industrial Managed Services experts become your advisors and partners, bringing years of experience, GE Operations Performance Management (OPM) software and Digital Twin analytics to improve your key performance and cost metrics.

Plant Performance Service – Key Features

- **A total performance view** of over 20 equipment and system metrics over operating modes and loads
- **Degradation detection and diagnosis** powered by tailored analytics and GE expert analysis
- **Continual improvement** guided by what-if analytic scenarios that optimize benefit and cost
- **Fuel cost and efficiency** is tracked, analyzed and optimized for all proposed actions
- **Weekly, monthly and quarterly reviews** with your team track and drive results
- **Digital Twin analytics** tailored to your operations are the foundation of all services
- **Rapid and proven results** delivered by IMS experts, OPM software and standard procedures
- **Broad coverage** for combined/simple-cycle gas and steam plant equipment across OEMs

Optimized Plant Performance made simple, affordable and fast
How It Works

A Complete Operational View
Plant Performance Service starts by collecting and aggregating all relevant performance data. This complete picture of key component and system level metrics is tracked in dashboards and reports, and is the foundation of all further activities. IMS experts monitor and analyze sensor data and derive calculated parameters and corrected parameters for comparison to baseline-expected values. Over two dozen key metrics are tracked.

Detect and Address Degradation
Performance degradation is a common occurrence yet can be difficult to detect and to determine causality. But with performance baselines established and Digital Twin analytics trained and deployed, GE teams are able to quickly detect any emerging fluctuations. Once identified, the customer is alerted and receives a diagnostic analysis of probable cause along with remediation guidance.

Driving Improvements
GE experts analyze your performance metrics across a complete range of operating modes and load factors – from minimum to partial to maximum capacity. Startup and shutdown efficiency is also a key target. Analysis in hand, GE uses a series of analytics-driven what-if scenarios to recommend prioritized actions to improve and optimize your operations.

Fuel Costs Matter
Fuel cost and efficiency are the number one cost-related concern of generators, and therefore a key aspect of all monitoring activities and strategic improvement guidance. Fuel costs are tracked and analyzed across all operational phases and loads, and are core to the financial benefit analysis done for any proposed actions.

A Proven Team to Rely Upon
As a leading power equipment manufacturer, service provider, and analytics and software vendor, GE knows how to optimize plant operations. With over 15 years of experience, our IMS experts apply their knowledge and GE technology to produce critical and continuous value to your operations. Today, the IMS team provides expert services to over 100 leading industrials and has delivered over $1.5B USD in measured customer savings.

Broad Equipment Coverage
For combined/simple-cycle gas and steam plant equipment across OEMs including frame and aeroderivative gas turbines, combined-cycle steam turbines, HRSGs, condensers and cooling towers. The steam power offering also covers the boiler (coal, oil and gas), steam turbine and feedwater system.

Evolution to Ownership
O&M Strategy Service is based on proven GE Digital OPM software and Digital Twin analytics – recognized as a leading solution for plant performance. Should direct software ownership or subscription be in your long-term interest, the GE IMS team will ensure a seamless transition and continue to offer any operation, monitoring or strategic services that meet your needs.

Identifying Performance Improvements