GE VERNOVA

APM PERFORMANCE INTELLIGENCE

Real-time thermal monitoring and actionable recommendations to reach optimum efficiency

OPERATIONALIZE HEAT RATE MANAGEMENT

Explore demo now

FAST & ECONOMICAL SOLUTION TO REDUCE HEAT RATE

Having visibility of thermal performance is critical to course-correct under performing assets. Performance Intelligence, answers, “Do I have a problem? If yes, where’s the issue and how much is it costing me?”.

Improve and maintain equipment performance and overall plant heat rate

- Monitor system-wide equipment performance across the operating range to reveal developing trends and efficiency losses
- Reveal hidden equipment issues with actionable data insights

Improve startup performance and fuel costs

- Visualize start performance vs. expected and normal
- Understand start variation and improve startup performance through data-driven insights

Maintain capacity for peak seasons

- Monitor the full load range to reveal developing trends and potential derates
- Visualize best and worst performers
- Analyze equipment performance trends that impact plant peak capacity

Generate performance tests and reports

- Quickly assess ASME PTC or custom test criteria
- Export reports in one click
- Compare multiple tests side-by-side

Performance Intelligence Technical Specifications

Performance Intelligence Includes:

- Data integration tag mapping
- Thermal performance models deployed in cloud or on-premises
- Model validation analysis
- Analytic configuration
- Application software and UI configuration
- Application functional validation
- Implementation and Subscription/Acceleration Plan for a customer selected term
- Managed Services – Optional service offering depending on the project

Customer Supplied Materials:

- Collaborate with GE implementation team on the required data and information
- Access to plant personnel for plant and equipment data/information
- Plant and major equipment design information
- Process layout details
- Piping and instrumentation diagrams
- DCS master tag lists
- Historian master tag lists
- Sample data sets including historical data covering load range and seasonal variation, performance test data, historical upgrade events, major maintenance activities
- Technical support for data questions, sensor investigations and alternative data source discussions

Other Requirements:

- The required interconnection devices, such as short-haul modem pairs, cabling, switches, etc.
- Cyber security devices (e.g., firewall)

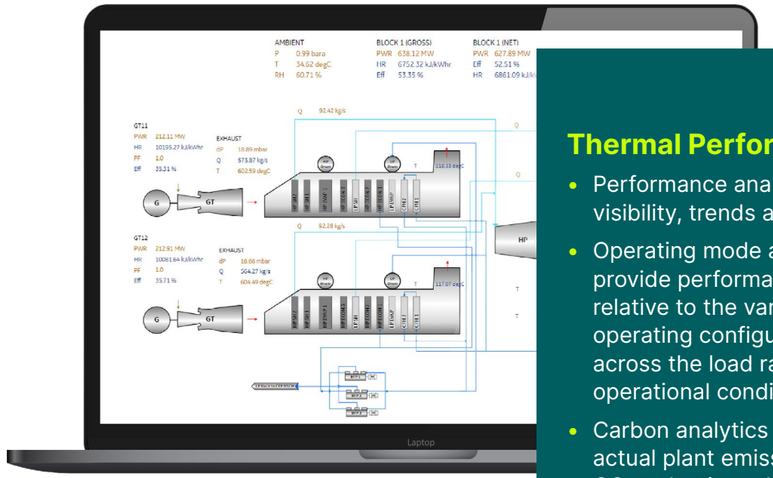
For Cloud Implementations:

- One On-Site Monitor (“OSM”) or other Edge option, acceptable to GE, including CPU, monitor and keyboard. If required, GE can provide a quotation for an OSM (additional cost/price). One network connection per computer system to provide remote access.
- Data system interface to OSM/Edge (DCS or Historian via OPC or other data exchange protocol)

To View Application You Will Need:

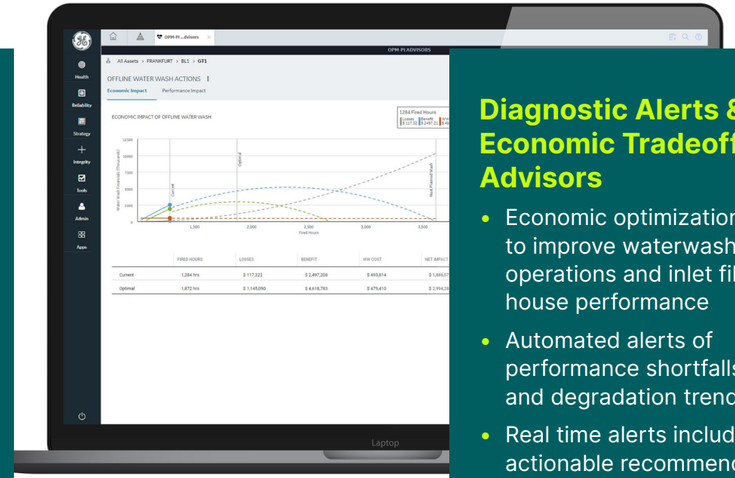
- Laptop/Desktop
- Connectivity to cloud or a web-interface to your on-premises system network
- Chrome version 55.X or higher

FEATURES:



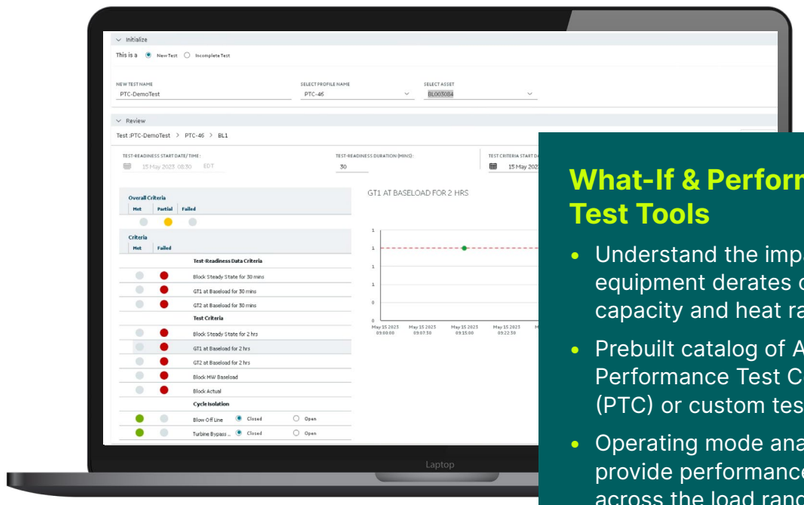
Thermal Performance

- Performance analytics provide visibility, trends and insights
- Operating mode analytics provide performance data relative to the various plant operating configurations across the load range and operational conditions
- Carbon analytics provide actual plant emissions and CO_2 reduction advice



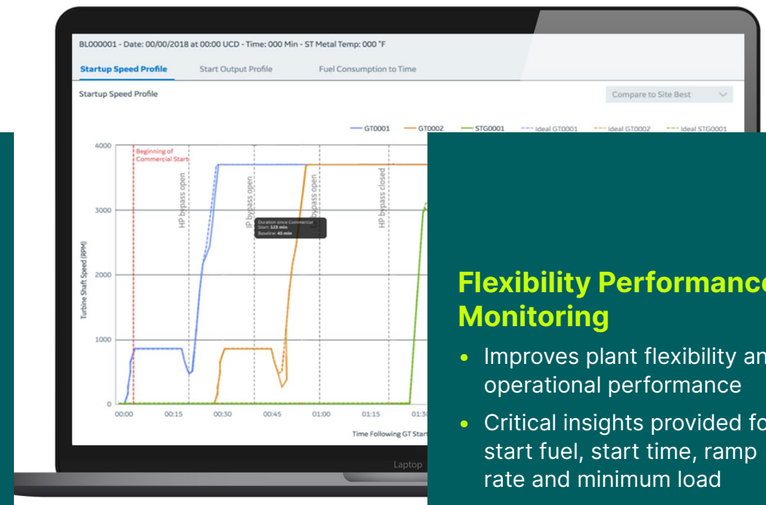
Diagnostic Alerts & Economic Tradeoff Advisors

- Economic optimization to improve waterwash operations and inlet filter house performance
- Automated alerts of performance shortfalls and degradation trends
- Real time alerts include actionable recommendations to improve heat rate and output



What-If & Performance Test Tools

- Understand the impact of equipment derates on plant capacity and heat rate
- Prebuilt catalog of ASME Performance Test Codes (PTC) or custom test criteria
- Operating mode analytics provide performance results across the load range and operational conditions



Flexibility Performance Monitoring

- Improves plant flexibility and operational performance
- Critical insights provided for start fuel, start time, ramp rate and minimum load

HOW PERFORMANCE INTELLIGENCE WORKS

Digital Twin Models are customized to your plant's equipment designs, systems and dispatch profile

Performance analytics are deployed, providing visibility to performance data, trends, and insights, across the entire range of operation

The easy-to-access user interface provides operational data summaries, performance analysis, and recommendations

REDUCE YOUR HEAT RATE & SAVE ON FUEL

Empower your plant teams to reduce your heat rate .5%-1%. Check out the Value Calculator to calculate how much you will save per year or contact us.

Calculate savings

Contact us