



GE VERNOVA

POWER GENERATION SOLUTIONS

Accelerating the energy transition with software for reliable, flexible, and efficient operations.



ENERGY TRANSITION

The energy market continues to evolve at a rapid pace with major implications.

01

Renewables energy share continues to rise

02

A new normal accelerated by macro events

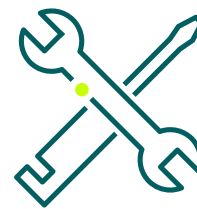
03

Evolving workforce rapid dynamics and impacts

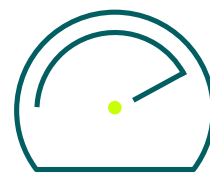
For a successful energy transition journey, you need a holistic and integrated approach to achieving your goals – covering assets, operations, and people.

With core applications for asset and equipment optimization, as well as for Remote Operations, our goal is to be your partner in achieving the best in reliable, efficient, and profitable operations — driven by an empowered workforce.

GE Vernova are proud partners of AWS and a member of the Amazon Web Services (AWS) Energy Competency based on a shared commitment to delivering transformative software solutions to the energy industry. To support our customers' needs, our software is available in the cloud or on-premises.



Reduce unplanned downtime & mitigate asset risk



Improve performance



Reduce emissions



Empower & extend your workforce

WITH GE VERNOVA YOU CAN:

Optimize your assets

- Improve reliability and availability
- Reduce emissions
- Extend asset life
- Reduce operations and maintenance (O&M) costs

Improve power generation performance

- Optimize plant utilization
- Seize market opportunities
- Minimize fuel spend
- Increase availability

Empower and extend your workforce

- Boost staff efficiency
- Increase staffing flexibility
- Automate processes

CRITICAL SOFTWARE TO SUCCESSFULLY NAVIGATE THE ENERGY TRANSITION

ASSET PERFORMANCE MANAGEMENT

Helps optimize equipment reliability and O&M efficiency across the plant and fleet. Featuring built-in GE industry expertise, advanced analytics, and work process automation, APM is the backbone of accelerating the energy transition.

GE's APM software suite includes the following applications to help meet your evolving needs:

Health

Gain a unified view from anywhere, remote or onsite, of your critical assets' health.

Rounds Pro

Mobile application that provides route creation, assignment, and measurement for operators. Collects image, temperature, vibration, and other critical equipment data that integrates into APM. This data helps create indicators in order to prioritize work.

Reliability and Performance Suite powered by SmartSignal

Avoid surprises from your assets with real-time defect identification and next-best-action guidance. Leverage SmartSignal predictive analytics alongside root cause analysis, production loss analysis, and other critical reliability tools. Predict and prevent equipment failures with confidence to eliminate unplanned downtime.

Performance Intelligence: Near real-time thermal advisory solution to improve plant efficiency. Achieve a .5-1% heat rate reduction.

Reduce fuel use by operationalizing heat rate with advanced physics-based digital twins, combined with actionable recommendations. By reducing fuel use, emissions inherently go down and help in the attainment of meeting emission reduction targets.

Is Performance Intelligence the right fit for your plant? Calculate the economic impact of reducing heat rate.

[Calculate your value](#)

Industrial Data Diagnostics

Enables customers to benchmark their asset reliability and O&M metrics against those of industry peers. Monthly reports and real-time data access help calibrate goals and make profitable decisions.

Strategy

Allows users to classify asset risk, assign values, and actively manage strategies in an easy-to-use digital interface. Assess if is your O&M strategy is high-performing and profitable and optimize for the future with a sustainable, closed-loop continuous improvement cycle.

2 of 5 Power Generation Software

See how a green-tech power generator leverages GE Vernova APM to deliver reliable, efficient power to more than 450,000 customers.

[Read case study](#)

Experience how APM Performance Intelligence with Reliability empowers plant teams to reduce downtime and optimize performance.

[Launch interactive demo](#)

GETTING MORE OUT OF YOUR APM

Industrial Managed Services

A range of expert services to guide and facilitate digital transformation across your enterprise. From turnkey outsourcing to product and best-practices guidance, GE experts augment your team and help drive desired results.

[Discover more](#)

Accelerators*

Accelerators are pre-built software tools designed with engineering and technology partner expertise. Quickly experience and scale the value of APM without resource-heavy or time-intensive customization.

[Accelerate value](#)

Solar Accelerators

For mixed-fuel operators, gain solar-specific analytics, visualizations, and AI/ML insights to improve O&M strategies and increase solar plant yield. Designed specifically to address solar plant challenges with solar asset digital twins and remote monitoring capabilities across sites, Solar Accelerators enhance solar asset reliability and performance.

[Optimize solar output](#)

*Accelerators are available for APM Strategy, Health, and Reliability

APM ASSET OPTIMIZATION

Closed-loop optimization systems for an affordable and fast way to significantly reduce emissions, fuel, and O&M costs.

Autonomous Tuning

Manual gas turbine tuning is costly and only temporarily improves emission and fuel efficiency. To keep up with variable weather and rising fuel costs, utilizes equipment models and artificial intelligence / machine learning (AI/ML) to continuously find optimal flame temperatures and fuel splits for gas turbines.

UP TO

1%

Reduction in fuel consumption & carbon dioxide emissions

UP TO

14%

Reduction in carbon monoxide emissions

UP TO

12%

Reduction in NOx emissions

Learn more



BoilerOpt

Real-time combustion and soot optimization for steam plants. Utilizes closed loop supervisory controls to improve boiler process conditions to optimize for best-achievable fuel efficiency. BoilerOpt works within existing plant technology to automatically improve boiler productivity and air-fuel ratios. Boiler control settings and events include fuel/air settings and soot-blowing.

UP TO

1%

Reduction in heat rate and CO2

APPROXIMATELY

1%

Availability improvement

UP TO

15%

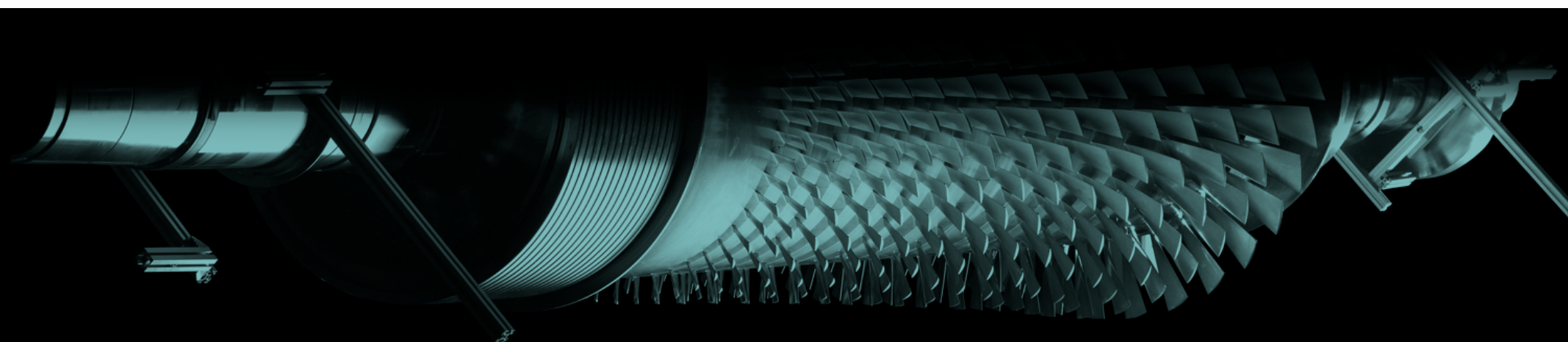
Reduction in NOx emissions

UP TO

30%

In soot blowing

Download brochure



ENERGY TRADING RISK MANAGEMENT SOFTWARE

Alpha Trader

Real-time and day-ahead analytics to optimize profitability and minimize risk. Reduce uncertainty and improve profit with probabilistic AI/ML-enabled insights for day-ahead whole market participation.

- **Offtake Advisor:** To increase the value of your renewable offtake agreement
- **Merchant Renewable Risk Advisor:** To confidently participate in DA market with reliable daily recommendation to increase project returns
- **Thermal Advisor:** To make most profitable use of generation capacity through commitment preparation and fuel nomination
- **DART Spread Advisor:** To best hedge risks with insights into nodal and hub-level pricing

[Learn more](#)

GENERATION MANAGEMENT SOFTWARE

Fleet Orchestration

Maximize use of renewables without sacrificing reliability with Generation Management Software. Empower your marketing and grid operation teams with visibility to accurate generation data to reduce over committing units and excess system reserves. Fleet Orchestration uses digital twin and AI/ML-enabled probabilistic models to provide insights and recommendations for vertically integrated utilities to reduce fuel and emissions and improve productivity.

Modules include:

- Performance Predictions
- Unit Commitment Optimization
- Fuel Nominations
- Outage Scheduling Advice

[Read more](#)

ENTERPRISE SUSTAINABILITY SOFTWARE

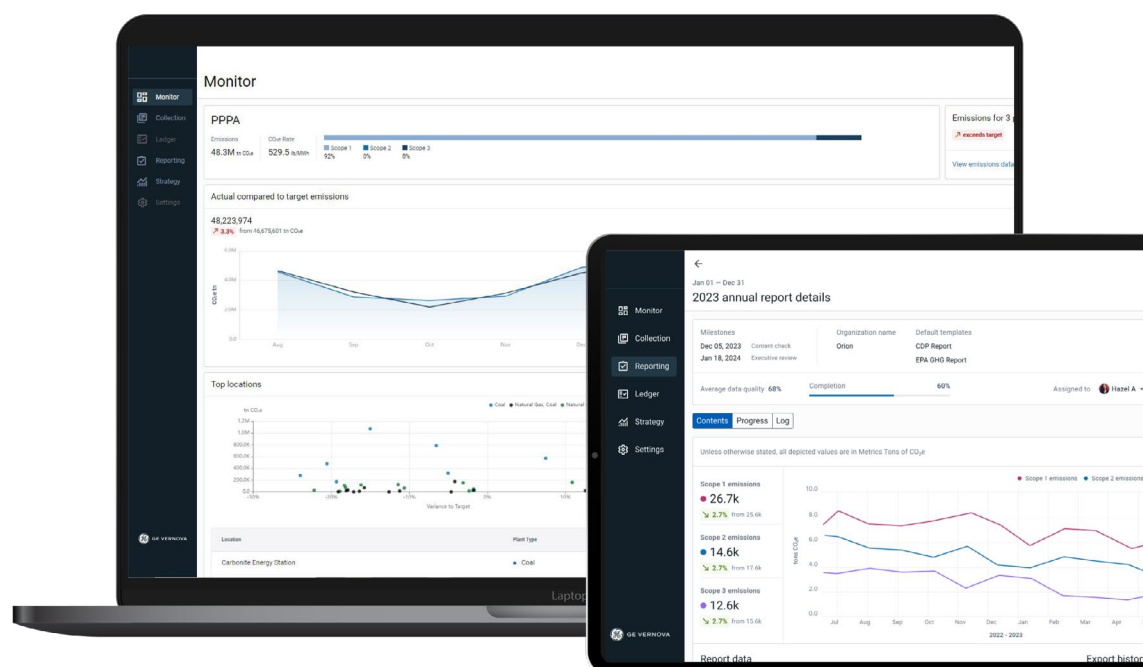
CERius™ Carbon Management

A centralized cloud application designed to automate accurate Greenhouse Gas Emissions (GHG) data collection, provide insights, and suggest actions to operationalize carbon reduction.

[Learn more](#)


Both Alpha Trader and Fleet Orchestration include the following module for your F-Class Gas Turbine:

Capacity Dispatch Optimizer and Capacity Trader: Improves GE F-class gas turbine energy production during peak demand for increased plant dispatch. Achieves improvements without costly maintenance adders or adversely impacting the maintenance interval.

[Learn more](#)




GE VERNOVA

SOFTWARE THAT ACCELERATES A NEW ERA OF ENERGY

Operate with greater flexibility, agility, and confidence.

Contact us

