

Renewables Management System (RMS)



Accelerate renewables. Power your business

CGI's Renewables Management System (RMS) delivers solutions that help managers, owners and teams to monitor, operate and boost the performance of renewable assets.

Improve performance. Increase power

Monitor

Track your portfolio with our app for iOS, Android and the web

Operate

Boost your operations through supervision and control in real time

Analyze

Visualize your data with dashboards and intuitive tools

Predict

Extend the lifetime of your assets by anticipating potential faults

Your pocket monitor

The RMS Monitor app for both iOS and Android allows you to access and track your asset portfolio in real time from your smartphone or tablet. You can also view your portfolio status and alarms as well as a host of useful business indicators—all at the touch of a button.

CGI's award-winning
Renewables Management
System monitors and
controls in real time
7,800 turbines on
387 wind farms in
12 countries.



Monitor

RMS Monitor combines real-time monitoring with key business indicators and has a simple and intuitive interface to help you track your portfolio on-the-go.

How RMS enhances data insights

- Real-time portfolio status and key indicators
- Automated reporting tools to keep all stakeholders in the loop
- Budget and key performance indicators (KPIs)
- Notifications on portfolio conditions

Operate

The RMS Operate module is well suited for multiscreen supervision and control, where clear, real-time overview of all assets and the shortest response time are a priority. The design incorporates the best user experience practices and includes a number of valueadd tools to support efficient operations.

How RMS improves renewable operations

- Single solution for your entire renewable energy portfolio
- Multiple time-zone support for global operations
- Safe and reliable 24x7 real-time operation
- Control of generators and substations
- Intelligent alarm aggregation
- Fault resolution workflows
- Connection with system operators (TSOs and DSOs)
- Integration with production forecasting

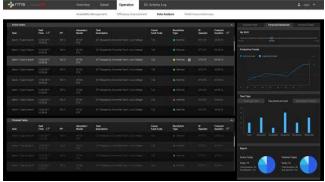
Portfolio overview

Matrix view of the portfolio's renewable generators with real-time generator status and alarms



Operator to-do list

Step-by-step workflows for fault resolution, and operator shift information such as production trends, tasks performed per shift, and more



Predict

The RMS Predict module enables you to anticipate potential failures and intervene early by using machine learning algorithms and continuous monitoring of real-time data. It offers the capability to build digital twins and use them as a baseline for behavior comparison.

How RMS reduces maintenance costs

- Real-time reliability indicators for each component of a turbine
- Flexibility to build your own predictive models
- Tools to predict a component's time to failure and remaining useful lifetime
- Ability to test predictive models using historical data to evaluate accuracy

Power curve analytics

Multi-power curve analysis and comparison, with advanced filters for deeper analysis and underperformance detection



Analyze

The RMS Analyze module significantly contributes to improved portfolio performance through trend analysis, benchmarked indicators, and key operational dashboards and reports. This module provides information needed to make decisions on operational actions and also assesses the results.

How RMS improves business performance

- Intuitive dashboards for performance analysis
- Calculate, categorize and diagnose energy losses
- Edit, correct and complete missing historical data
- Downtime categorization in accordance with the IEC 61400-26-1 standard for time-based availability
- Built-in customizable KPIs
- Report designer and scheduled reports
- Accurate power curve analytics with advanced filters
- Automated underperformance detection
- Portfolio condition-based monitoring
- Open database and integration with business intelligence (BI) tools

Analysis tool

Trend analysis and measurement correlation though linear and polynomial regressions



"Our next step is to attain economy of scale from the use of RMS, both by integrating Generg's international assets into the platform, and by using the forecasting tool interface with RMS to aid our entry into the energy markets.

The large operational analysis and reporting tools of the RMS solution bring us a valuable opportunity to achieve predictive maintenance of our assets."

Helder Serranho

Generg Chief Operational Officer



RMS global footprint



NORTH AMERICA

5495 MW installed capacity

2

SOUTH AMERICA

1261 MW installed capacity

(3)

EUROPE

8089 MW installed capacity

wind – solar – hydro

8000 generators

15 GW installed capacity



About CGI

Insights you can act on

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomesbased to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

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