Accelerate renewables
Power your business

**CGI**
Experience the commitment®

# RMS
## Renewables Management System

Delivering solutions that help managers, owners and teams to monitor, operate and boost the performance of renewable assets

**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.

# 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.

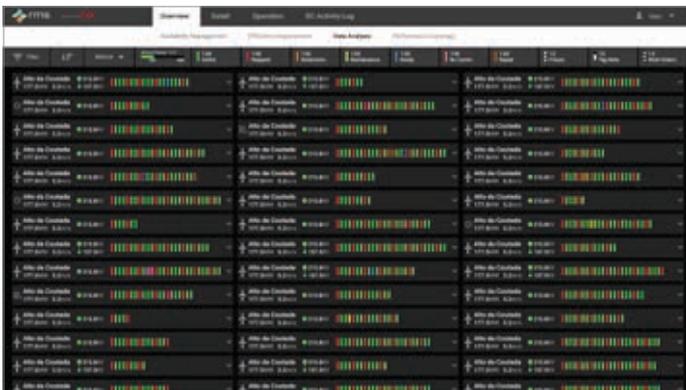## How can RMS enhance data insights?

- 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 multi-screen supervision and control, where a 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 value-add tools to support efficient operations.
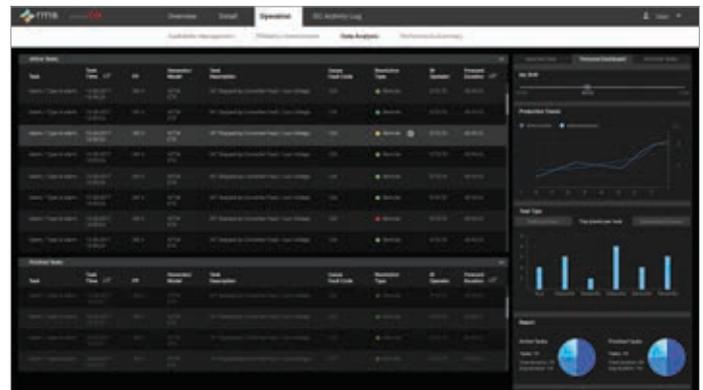
## How can RMS improve renewable operations?

- 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)
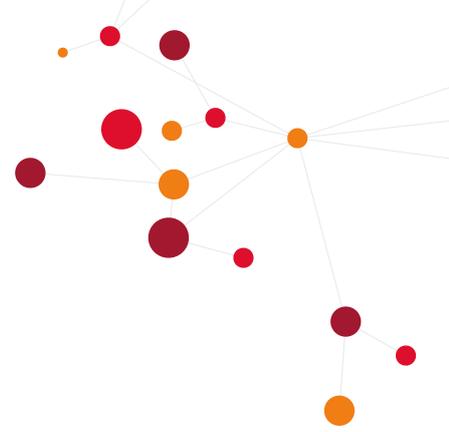- Integration with production forecasting

### 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 can RMS reduce 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

# ANALYZE

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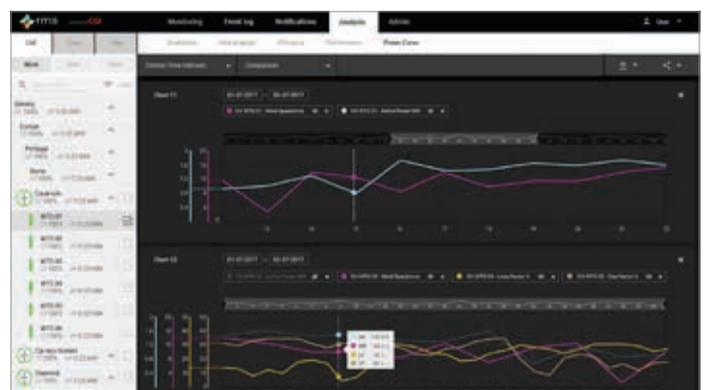
## How can RMS improve business performance?

- 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
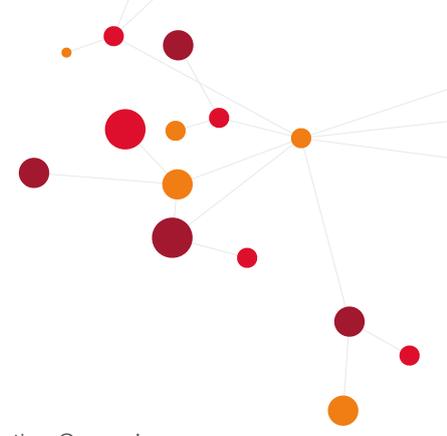- Open database and integration with business intelligence (BI) tools



### Power curve analytics

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



### Analysis tool

Trend analysis and measurement correlation though linear and polynomial regressions

RMS – Renewables Management System

# CGI

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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

**1** 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

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world. Operating in hundreds of locations across the globe, CGI delivers an end-to-end portfolio of capabilities, from IT and business consulting to systems integration, outsourcing services and intellectual property solutions.

CGI works with clients through a local relationship model complemented by a global delivery network to help clients achieve their goals, including becoming customer-centric digital enterprises.

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