



DELIVERING RELIABLE RENEWABLE ENERGY

Boosting availability and safety with an integrated, proactive approach to asset maintenance.

Infinis is one of the UK's leading generators of renewable power. Its total installed capacity of 571 MW is generated at 143 sites, including 123 landfill gas plants, 10 onshore wind farms and 10 hydroelectric plants.

The company's headquarters are in Northampton, and it employs approximately 400 people, of whom around 190 are engineers.

Many of Infinis' sites are located in remote areas and most of its generators run without any need for human oversight or intervention. Because most of the sites are unmanned, the company relies on a sophisticated network of IT systems to enable remote management and report any problems.

Sophisticated sensors and alarms

The company's generators are fitted with a comprehensive range of sensors that monitor the condition of each component and can generate alarms when predefined thresholds are reached. These alarms are managed by SCADA and BMS systems that relay data to the company's logistics centre in Northampton.

A comprehensive solution

Infinis decided to integrate the SCADA and BMS alarms into its IBM® Maximo® Asset Management asset management system, creating a comprehensive incident management system (IMS).

Integrating alarm systems with asset management

The integration of SCADA with asset management systems may be on the wish-list for many companies in the energy and utilities sector, but Infinis is one of the first to have implemented it successfully.

When alarms are triggered at a site, the SCADA and BMS systems send the relevant data to the IMS, which links each alarm to the appropriate asset. The system also displays all the open work orders that may affect that asset, as well as confirming whether the generator is authorised for a remote or manual restart. If necessary, it also creates a work order and allocates it to an engineer via the Click Maximo Integration Gateway – our solution which gives Maximo access to advanced job scheduling capabilities.

Better information results in faster fixes

Engineers appreciate that having alarm information linked to the work order greatly improves their ability to diagnose faults accurately and quickly. Historically, alarms would have been cleared from the system long before the engineer got to the site, making effective root-cause analysis difficult.

“We can analyse all the incidents that have occurred, and find out which alarms have been raised in which circumstances, which components were affected, what the root cause was, and what work was required. The ability to predict where failures are most likely to occur ultimately leads to fewer outages, less emergency maintenance work, and greater total production across our generation infrastructure. This means we can ensure a safe, efficient and reliable supply of electricity to the National Grid while keeping our costs as low as possible.”

Neil Douglas,
Head of IT, Infinis

Feedback from users in the logistics centre has been extremely positive: the vast majority testify that they can work more efficiently and react more quickly when an incident arises.

Moving towards predictive maintenance

In addition to the improvements in day-to-day operations, the IMS provides deeper insight into the causes and frequencies of different types of incident, which helps Infinis organise its planned maintenance cycles in a more effective way.

Evidence that Infinis is succeeding in these efforts is provided by improvements in a number of the company's key performance indicators. For example, mean time between breakdowns has increased and mean time to repair has fallen since the IMS was launched.

Infinis' Incident Management System

- **Instrumented:** SCADA and BMS systems at Infinis' power plants across the country send alarm data to a central, Maximo-based incident management system (IMS) at the company's main logistics centre.
- **Interconnected:** In an end-to-end process, the alarm data is used to create incident records and trigger the creation of maintenance work orders, which are then assigned to skilled engineers for resolution.
- **Intelligent:** Combining alarm data with incident reports and work orders provides a 360-degree view of asset maintenance, enabling more accurate analysis of root causes and more effective maintenance planning.



For more information, please get in touch

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