CASE STUDY

NRG Gladstone

Upgrading to savings, safety and efficiency
with ABB Ability™ Asset Suite EAM 9
The client

The Gladstone Power Station is the largest power station in Queensland, Australia. The world-class facility has six coal-powered steam turbines that can generate up to 1,680 MW of electricity. Since its inception in 1976, the power station has provided customers in the Gladstone region with safe, reliable and low-cost electricity. After privatization of the plant in 1994, it has been operated by NRG Gladstone Operating Services on behalf of the joint-venture participants, the two majority owners being Rio Tinto and NRG Energy.

The challenge

Gladstone Power Station has been utilizing the Asset Suite enterprise asset management (EAM) system to manage assets, work, materials and procurement since 1998. With NRG embarking on major improvement projects across their businesses, they wanted to upgrade existing systems to the latest technology in order to lay a solid foundation for future developments. This approach was in line with their long-term strategy to virtualize all business-critical applications and extend IT/OT integration to encompass more work groups and processes.

Ease of upgrade

Asset Suite EAM 9 was designed with ease of implementation in mind. The upgrade was pre-built on a virtual machine (VM) clone of the production system. This allowed for testing of all installation and upgrade scripts before deployment, and also eliminated potential errors caused by environmental differences between the test system and the live system.

The upgrade scripts themselves have also been improved. The scripts now run directly with SQL, which shortened installation time from days to hours. This, combined with the ability to quickly refresh the virtual environment, meant that the number of test runs could be increased. If problems occurred, it was simple to roll back to a working version and resume testing from that point.

The solution

Upgrade to ABB Ability Asset Suite EAM 9

NRG leadership decided that the best way to meet their goals was to upgrade their existing Asset Suite installation. Current modules would gain significant performance improvements on the new platform and wider integration could be achieved with the addition of new modules. As with any modifications to live production environments, extensive planning and preparation was required to minimize work disruptions and downtime. Trinoor, ABB’s software services partner, worked tirelessly with NRG’s Information Services team to ensure that the implementation would meet the project’s aggressive timeline and budget.

“I have worked with Asset Suite EAM for over 16 years and by far this was the easiest upgrade I have been involved in.”

– Chris Print
Trinoor Project Manager
“I am quite impressed with the way ABB delivered Asset Suite EAM 9 in a ready-to-deploy VM. Spinning up a new region and maintaining the system is much easier, and applying patches is now also simplified.”

– Gagandeep Arora
Infrastructure Architect at Gladstone Power Station

Full migration of customizations
A high priority item identified during planning was the migration of customizations to the application code that had been written in COBOL. Asset Suite EAM 9’s new extensibility layer uses modern, open-source languages that work with proven and well-documented solutions widely available on the market. All customizations were successfully transitioned to the new platform and, in some cases, legacy code was replaced with new, leaner equivalents.

The results
The upgrade project completed within 14 weeks and was 12% under budget. The new Asset Suite EAM platform will significantly reduce total cost of ownership thanks to savings in hardware, data center, licensing and maintenance. The new application infrastructure requires a much smaller team to maintain, even though integration has been greatly expanded, with double the number of modules.

With this upgrade, NRG successfully integrated safety and compliance processes into their enterprise asset management solution, achieving greater efficiency on these critical functions and increased visibility across the organization.

“The upgrade was so smooth, there was minimal disruption to our workforce, and ABB has delivered a fast, modern interface to our ERP system.”

– Jason Owen
IS Superintendent at Gladstone Power Station

About ABB Ability Asset Suite EAM
Asset Suite EAM 9 is a complete solution to effectively manage assets and costs so you can achieve high levels of performance, safety and reliability.

Asset Suite EAM was specifically designed to address the unique challenges faced by power generation operations, driven by utility requirements and implemented by utility-experienced teams. It is the most complete state-of-the-art, mobile-enabled EAM solution available.

Asset Suite EAM enables organizations to standardize and streamline work processes to maximize worker productivity. It also improves your return on assets through increased availability, reduced planned outage time and improved reliability.