Nuon Improves Process Monitoring with Uniformance® PHD

“Honeywell technology helped us develop a process for effectively monitoring the Key Performance Indicators in our plant, improving our ability to keep track of both condition monitoring and performance monitoring.”

Alex Muller, Process Automation Lead, Nuon

Benefits
This Nuon used Honeywell’s Uniformance® PHD for performance monitoring of its power generation units resulting in improved process optimization and predictive maintenance capabilities.

Uniformance PHD, with its rich, flexible environment for the collection, storage and analysis of process data, helped Nuon to:

- Gather data from many systems including non-Honeywell (third-party) sources
- Ensure the data is available when needed
- Improve process optimization by focusing on coherent thermodynamic process parameters
- Improve condition monitoring and early detection of malfunctioning/degraded parts
- Focus on finding the reasons for bad process performance
- Create consistent and reliable process reports
- Improve security by ensuring that problems are automatically corrected or support personnel are immediately notified

Background
Nuon is a leading energy company that serves customers in the Netherlands, Belgium and Germany with electricity, gas, heating and related services. The company is active in the production, trading, transport and supply of (renewable) energy. The company has a total capacity of 3640 MW.

The Nuon power plant in Amsterdam

Focuses dominantly in gas-fired generation, Nuon has power stations in Amsterdam, Velsen, Diemen, Purmerend, IJmond, Utrecht and Buggenum, providing about 20 percent of the Netherlands’ total electricity requirements. Its other business activities include power generation for municipal grids and the trading of electricity.

At full capacity, the power plant in Amsterdam uses approximately 5,300 tons of coal per day and generates 647,000 kW per hour of electricity.

Challenges
Nuon was formed in 1999 as a result of the merger of four regional energy companies: Nuon, Energie Noord West, Energie en Watervoorziening Rijnland and GAMOG. GGR was added in
2000. In 2003 the energy production capacity was expanded (3390 MW) with the acquisition of Reliant Energy Europe.

As in the case of most mergers, the integration of organizations brought its share of challenges in the form of different processes across the merging units. For many years, each had its own process information system for recording history. With no common ground for comparing data, an enormous expenditure of time and energy was involved in the analysis of data and the understanding of overall performance.

The beginning of liberalization in the European power market brought in a flood of opportunities and challenges. Quick access to reliable information and a more organized method of collecting, storing and managing process control data was needed to stay ahead of the competition.

**Solution**
Nuon’s search for a process information management system led to Honeywell’s Uniformance PHD, an extremely flexible storage and retrieval mechanism that is limited only by the power of the user’s computer and operating system. Nuon selected Honeywell for its successful track record in delivering plant information systems to the process industries and was confident in its expertise to meet the needs of an integrated, open system.

PHD’s collector/shadow architecture allows data to be gathered from disparate control systems and other data sources into a unified database for long-term storage. This data is “shadowed” into a single centralized database, allowing engineers and plant management to analyze performance of the entire operation from a single location.

“We still use some third-party data sources, which contain very valuable data. PHD’s ability to connect to non-Honeywell systems comes as a big relief to us,” said Alex Muller, Process Automation Lead at Nuon.

PHD’s robust data collection ensures speedy fail-over to a secondary collector upon loss of a primary. This ensures consistent, reliable data that is accessible at any time.

“With Honeywell technology, we were able to bring people together on one page when evaluating process results and developing processes for effectively monitoring the Key Performance Indicators (KPIs) in our plant. This improved our ability to keep track of both condition monitoring and performance monitoring,” continued Muller.

With PHD, data can be both secure and portable. While the flexible security scheme allows data to be secured by tag and user/role, the ability to collect and transfer data across process network firewalls makes it portable. Additionally, Windows security updates are qualified 14 days after release by Microsoft.

“Honeywell runs diagnostic tests from outside the plant, saving us time and money on analysis of trouble spots,” said Muller. “I am pleased with the expertise and service of the Honeywell team.”

Uniformance® is a registered trademark of Honeywell International Inc.

**For More Information**
Learn more about Honeywell’s Uniformance®
PHD visit our website
www.honeywellprocess.com/software or contact your Honeywell account manager.

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