

Case Study

Kotka Energy Improves Reliability and Efficiency with Honeywell Solutions and Services



“We have already seen what a good investment Honeywell’s Experion system and associated Lifecycle Management services have been at our plant with solutions that help us manage costs and protect our technology investments. In addition, the Honeywell solutions enable us to calculate monitor and report on the plant’s emissions and efficiency to fulfill stringent environmental regulations.”

Sami Markkanen, Director of Production, Kotka Energy

Benefits

This As a pioneer in using bio and waste fuels, Kotka Energy in Finland has developed several plants incorporating Combined Heat and Power (CHP) production using renewable energy sources in cooperation with local industry. At a new power plant, the company looked to several automation providers to submit a bid to support its diverse process automation needs.

Honeywell and its Experion® Process Knowledge System (PKS) were selected to control waste incineration. This was a critical function because the quality of the municipal and industrial waste used to power the Kotka plant varied dramatically, yet the burning process had to remain consistent. In addition to Honeywell’s proven automation solutions, Kotka implemented Honeywell’s Lifecycle Management services to help guarantee asset support and manage costs throughout the control system’s lifecycle. Other solutions from Honeywell included Safety Manager for process safeguarding and Uniformance® Process History Database (PHD) for effective information management.

Benefits of implementing the Honeywell solutions included:

- Comprehensive, cost-effective asset management as the plant matures
- Compliance and management of safety requirements in accordance with strict government regulations
- Comprehensive, local support for application planning and commissioning
- Ability to calculate, monitor and remotely report on plant emissions and efficiency to fulfill environment, safety and reporting regulations

- Reduced risk of obsolete technology with predictable plans for future growth
- 90% efficiency achievement thanks to CHP



Kotka Energy updates technology and manages assets while improving energy efficiency and safety with Honeywell solutions.

Background

Kotka Energy Ltd, a modern energy services company, is focused on combined generation of district heat and electricity utilizing renewable energy sources. The company is dedicated to enhancing the comfort and safety of the communities it serves by delivering quality energy services, acting as a pioneer in utilizing bio and waste fuels, and operating as a desired partner and employer. Kotka Energy’s main business activities include

district heat sales and distribution, industrial stream and electricity sales.

Challenge

At Kotka's power plant in Finland, management needed to find a modern automation system and hardware solution to work with turbine, waste-to-energy boiler, flue gas treatment and auxiliary systems.

Kotka asked several automation system providers to submit bids for the project, which would include control room systems, data collection and reporting and system programming tools.

"In addition to providing a state-of-the-art automation system, we also had to ensure that the chosen supplier was able to sufficiently support the system and work with us to improve efficiency and develop a plan to protect our investment," said Sami Markkanen, Director of Production, Kotka.

Solution

Out of all the prospective automation providers for the power plant project, Kotka selected Honeywell due to its proven automation expertise and maintenance support. Honeywell successfully installed Experion PKS, Safety Manager and Uniformance PHD at the Kotka plant to help improve efficiency, safety and asset reliability.

In addition to implementing control technology solutions, Honeywell provided a multi-year service Lifecycle Management agreement that guarantees asset support for all Honeywell products installed in the plant until they are modernized or retired.

"We needed a planned commitment and roadmap to our success in the form of flexible asset protection," continued Markkanen. "Honeywell was able to help us manage costs and maintain hardware and software assets to ensure continuous operation."

Honeywell's Experion PKS solution was used to control waste incineration at the Kotka plant. Safety Manager was selected to help manage safety in accordance with strict government regulations, along with Uniformance PHD for data collection and reporting.

The new Kotka power plant is subject to environmental, safety and reporting regulations determined by the European Union (EU) and other respective authorities. Collectively, the Honeywell systems enable plant operators to calculate, monitor and report on emissions and efficiency to fulfill these requirements. Kotka also utilizes the remote capability for emissions reporting to help ensure the safety of all plant employees.

"We know our Honeywell investment has been a good one and can see how successful the products are in running the power plant and auxiliaries," said Markkanen. "The history data trends are easily accessible and we know where we stand with regards to emission monitoring."

For More Information

Learn more about Honeywell's Uniformance® PHD visit our website www.honeywellprocess.com/software or contact your Honeywell account manager.

Honeywell Process Solutions

Honeywell
1250 West Sam Houston Parkway South
Houston, TX 77042

Honeywell House, Arlington Business Park Bracknell,
Berkshire, England RG12 1EB UK

Shanghai City Centre, 100 Junyi Road
Shanghai, China 20051

www.honeywellprocess.com

Experion® and Uniformance® are registered trademarks of Honeywell International Inc.