

## Kotkan Energia – uninterrupted production with the help of condition monitoring

Kotkan Energia has been in operation for over 20 years. Originally the company founded to distribute electricity and heat, has evolved into a diverse energy producer, including the production and distribution of industrial steam, electricity and district heating. Further more, Kotkan Energia sells waste-to-energy services and natural gas to industrial customers. The company serves not only the local households, but also major companies such as Ahlström Glassfibre, Danisco Sweeteners and Sonoco Alcore Ov. The main production unit is the Hovinsaari power plant. According to the company's environmental strategy, the share of fossil fuels has been reduced significantly and the company is heavily investing in renewable energy. Recently Kotkan Energia has built several wind turbines to produce clean energy. The Hovinsaari Plant uses natural gas, forest processed chips, bark, sawdust, wood residue, peat, reed canary grass and energy waste REF 1 as fuel. The Hovinsaari powerplant produces annually 300-350 GWh, electricity 150-250 GWh and industrial steam 140 GWh.

Matti Fransas in his role as Mill Service Manager is responsible for uninterrupted production. "Our mission is to run the facility from one planned maintenance stop to the next without interruption." explains Matti Fransas. With a long background in paper industry, Matti knows the process industry and its requirements. He, together with his team of experts, is responsible that the service commitments are met and the facility produces electricity, heat and steam without interruptions.

One key tool that the maintenance team uses is a condition monitoring system supplied by ABB Service. The system is based on Oliotalo's ORM data collection technology and the SaaS dOGMA-platform. Several blowers and feed-water pumps are fixed both with vibration sensors, collecting axial and radial vibration data, as well

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practically service free and does not require a maintenance stop to be installed.", explains Matti. "One of the main reasons for Kotkan Energia choosing this specific system and service was the easy and fast implementation.



An independent wireless network of ORM-data collection devices monitors the facility.

We also get enough data for decision making, but we are not swamped with anything unnecessary", continues Matti. ABB offers Kotkan Energia further analysis of the raw data. The service provided by ABB helps them drill down more into the root causes.

The maintenance team utilizes the system widely. "We learn continuously new things about the equipment, our processes and performance from analysing the data and by correlating performed maintenance tasks with the data." Matti continues. The team has for example optimized lubrication using the system. In addition, the impact of maintenance on equipment performance can be measured. In dayto-day operations following the data can reveal something is developing that needs attention. Data points outside the set limits or negative trends trigger alarms to the team.

More than once the system has helped the team catch a critical break down before it has led to an unplanned halt. "The systems has paid itself back easily", confirms Matti. Once the team caught a bearing damage using temperature monitoring and another time an in-feed pump break down was prevented, both in critical equipment that could have led to shutting down the production.

Matti points out that a system that monitors critical components in a process must be reliable. "Our current system is exactly that, we have had no problems with reliability."

Oliotalo and ABB work closely together in developing solutions for the Internet of machines. Oliotalo technology has been installed in over 40 countries.

