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Helen Sähköverkko Oy keeps the power on in Helsinki with the AVEVA™ PI System™

Helen Sähköverkko Oy - www.helensahkoverkko.fi
Industry - Power distribution

Goals

- Make SCADA system measurements available for planning, development, and operations and tie data directly to assets.

Challenges

- Ensure uninterrupted electricity supply to customers despite extreme winter weather conditions.

Solution

- AVEVA PI System

Results

- PI System software installed in three days and operators trained in one day.

- Measured data is easily available and linked with the asset components, saving time and making work more cost-effective.

In Finland, one of the world's northernmost countries, where winters are long and exceptionally cold, keeping the power on is vitally important. Helen Sähköverkko Oy, which distributes electricity to 400,000 customers in Helsinki, Finland, takes this job seriously. Helen Sähköverkko Oy is Finland's third-largest electricity distribution system operator (DSO); it's part of the Helen Group owned by the city. When Helen Sähköverkko Oy needed more insight into SCADA measurements, it turned to the PI System in 2011 to replace an in-house EMS data historian. The company soon realized the PI System had the power to deliver on more than just data visibility.

Helen Sähköverkko Oy uses the PI System to continuously display real-time process data in a customized dashboard.
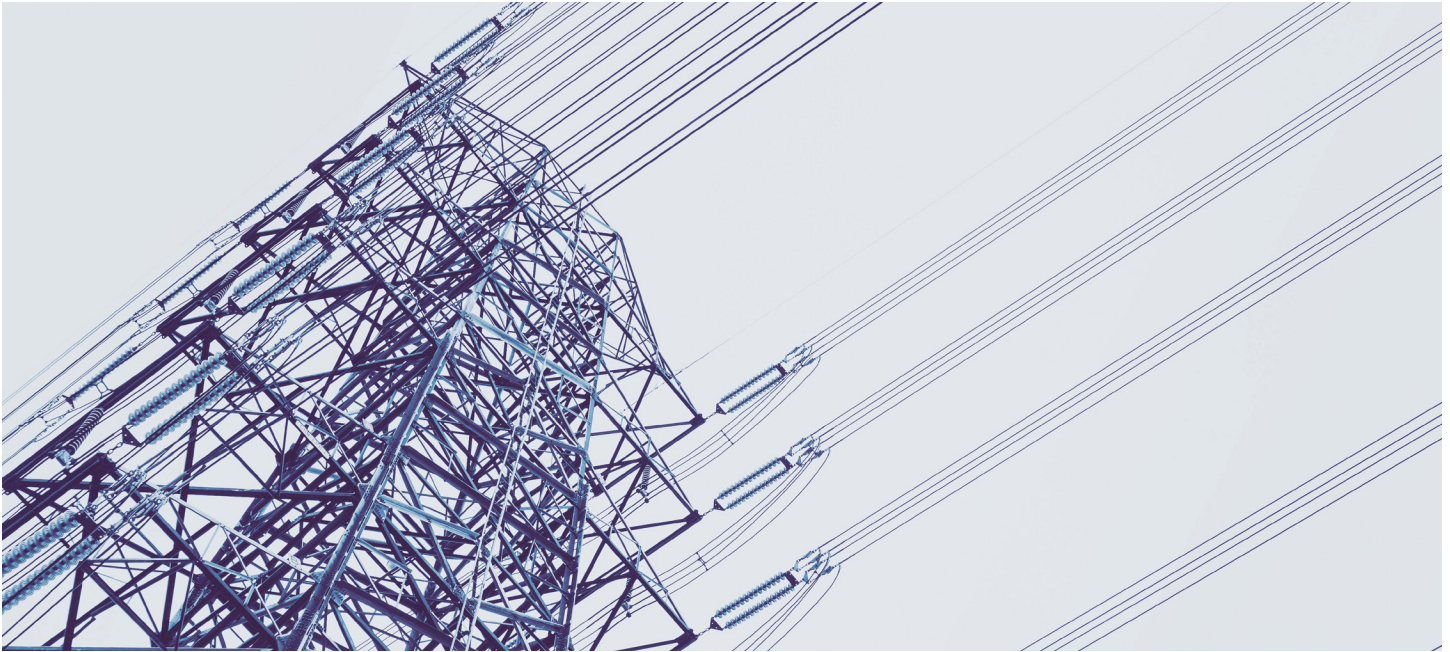
Choosing a trusted data infrastructure

Helen Sähköverkko Oy ensures that electricity in Helsinki is functioning well at all times and in all conditions. Thanks to the company's efforts, the average Helsinki resident only experiences a power outage lasting 30 minutes every 10 years. That's due to the security of supply – a 6,200 km network delivering 4,600 GWh/a with 96 percent of energy supply cables underground and safe from inclement weather.

Helen Sähköverkko Oy previously gathered its data from the network through SCADA, but this data wasn't easily available for analysis. The organization wanted all SCADA measurements to be available for planning, development, and operations, and it knew the PI System was reliable because its SCADA provider already had a trusted PI System interface. At this point, the company replaced its old EMS data historian with the PI System.

"The advantage here is that everyone has the same data available… The PI System is one of the business development enablers. [It is] bringing data available for decision-making on all the levels from strategic planning to daily operations."

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Jari Martikainen,
IT manager, Helen Sähköverkko Oy

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Asset management in a customized dashboard

PI System's engineers installed the software in just three days and trained workers in one day. Prior to the system's installation, Helen Sähköverkko Oy's team found data based on a tag name that came from data points within SCADA. But if a user was not familiar with SCADA, that asset was hard to find.

The company saved precious time by linking all the data in the PI System to assets via Asset Framework. With Asset Framework, users can easily navigate to measurements by network hierarchy or equipment repository, such as substations or transformers. The organization uses PI ProcessBook to continuously display real-time process data in a customized dashboard, and it calculates asset data values with PI DataLink. All SCADA measurement data is stored as it comes in from the field, and it's available to stakeholders when they need it.

"The advantages here is that everyone has the same data available," said Jari Martikainen, IT manager at Helen Sähköverkko Oy. "So it doesn't matter if you're doing long-term planning or maintenance tasks."

Helen Sähköverkko Oy not only saved time and money by streamlining operations, it improved business performance with continued IT integration. The company later implemented the PI System's Notifications to keep stakeholders apprised of conditions, so they can take immediate action at the first sign of a problem. The PI System helped make Helsinki's reliable power distribution company even more efficient.

For more information about AVEVA's digital solutions in transmission and distribution, visit our website: aveva.com/en/industries/power-utilities/transmission-distribution

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