



Organization: **Transmission System**
Operator in **Europe**
Partner: **CGI**
Geography: **Europe**
Industry: **Energy**
Employees: **450**

KX and CGI Power Electricity Information Exchange **for 3.8 Million Consumers in Finland**

OVERVIEW:

Fingrid Oyj is Finland's transmission system operator: Its mission is to secure the energy supply in society in all circumstances and to promote a clean, market-based power system. It ensures Finland's energy supply by transmitting electricity through the main grid from production facilities to industrial customers and electricity companies. The nationwide main grid forms the backbone of the electricity transmission network - connecting major electricity producers, factories with high energy consumption, and distribution networks.

Like every manufacturer, they needed to improve yield. They were striving to increase output and were keen to optimize their processes and resources, reduce costs, increase the visibility of KPIs across the business and build a foundation for future growth.

THE CHALLENGE:

Fingrid needed to centralize the information exchange for retail markets serving 3.8 million consumers, 100 electricity suppliers, and 80 distribution network companies. A key goal was to improve the service to customers provided by electricity companies, for example, when switching electricity suppliers, by making access to data faster. Another goal was to reduce the number of errors in market processes and make it easier to combine multiple accounting points in the same electricity sales agreement. Finally, Fingrid wanted to promote the full utilization of smart grids and meters, enabling the development of new applications for electricity consumers, such as apps for saving electricity or monitoring consumption.



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“We selected KX specifically for its ability to process and manage time-series data at speed and scale. Over the next couple of years, the number of smart meters in use will increase dramatically, significantly increasing the volume of data being created. Many accounts will go from one meter reading a year to 96 values every day! Multiply that by 10 million meters, and you can see why we needed a platform with the scale and performance capabilities of KX. Together with KX, we are perfectly positioned to accelerate toward a smarter, cleaner, and more flexible energy system, involving higher-frequency meter data and scaling toward real-time data.”

Mattijs van den Hoed, **VP Consulting, CGI**

WHY KX:






Working alongside CGI, one of the world’s largest IT and business consulting services firms, KX provided the meter data management, settlement, and data retrieval functions for the Datahub, a next-generation electricity information exchange. Datahub centralizes the data from about 3.8 million electricity metering and accounting points in a single system, significantly accelerating the exchange of information in the retail electricity market and thereby transforming the capabilities of market participants.

The centralized system enables the fair, real-time, and secure exchange of information between companies and accelerates customer service at electricity companies. Thanks to the integrated solution powered by KX, the project will also reduce the number of errors arising during market processes and facilitate the consolidation of multiple accounting points under a single electricity contract.



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BENEFITS

 <p>Improved operational efficiency</p>	 <p>Minimal infrastructure requirements</p>	 <p>Simplified, faster, and enhanced efficiency</p>
 <p>Enhanced capability to create new products</p>	 <p>Supports the EU's transition to a fossil-fuel-free society</p>	

BENEFITS

Handling data validation and frequent recalculations of market settlement amounts required the analysis and management of large amounts of time series data combined with dynamic market and context data. KX was designed to process and analyze large volumes of time-series machine-generated, relational, and context data. It was the ideal choice for CGI for their energy markets offering and Fingrid's Datahub.

KX delivers the following key benefits:

- Improved operational efficiency with a real-time view of data quality and settlement processes.
- Minimal infrastructure requirements and solution complexity reduce the cost of operations and service delivery.
- Simplified, faster, and enhanced efficiency of data exchange across the retail electricity market.
- Enhanced capability to create new products and services, such as energy flexibility.
- Supports the EU's transition to a fossil-fuel-free society.