



Oulun Energia's extensive smart metering solution – an investment far into the future

Oulun Energia Siirto ja Jakelu Oy recently launched an extensive smart metering project in cooperation with its trusted long-term partner Landis+Gyr. In total, 90,000 Oulun Energia customers will benefit from the advantages of the cost-effective smart metering solution delivered by Landis+Gyr. For the network company, the choice amounts to more effective processes, cost benefits and better customer service.

About 28,000 customers of Oulun Energia Siirto ja Jakelu Oy were already using remotely readable Landis+Gyr electricity meters. Before extending its smart metering solution, the network company issued a public request for bids aimed at finding the best partner to roll out smart meters to the rest of its customer base. They were looking for a smart metering solution for 62,000 meter points – one of the largest smart metering projects in Finland. It was only natural that the network company wanted to source its smart metering solution from a known partner with the capability to deliver an extensive package from meter delivery to meter reading services, not forgetting the system's technical requirements. Further selection criteria for the smart metering solution also included long-term cost-efficiency.

A cost-effective and comprehensive solution

Landis+Gyr's versatile total solution met the requirements of Oulun Energia – it provides the network company with a technically advanced system and

enables switching to smart metering with controlled schedule and costs. Enabled by Landis+Gyr's smart metering technology, the merger of the existing metering infrastructure with its 28,000 metering points as part of a larger system is flexible and easy. The investments will also carry on far into the future when new products and services are introduced.

In addition to the delivery and installation of 62,000 smart electricity meters, the Gridstream smart metering solution chosen by Oulun Energia Siirto ja Jakelu includes the smart metering software as well as communications and integrations. Seamless integration of the smart metering system with the network company's IT systems is realized with the AIMIA integration application. AIMIA also ensures the reliable flow of data between the systems. Meter installation will be carried out by a trusted external partner under the supervision of Landis+Gyr. In installation work, Landis+Gyr utilizes its Site Manager application that ensures a fast and efficient installation process. The package also includes operations and

maintenance service for the smart metering system for a period of seven years, and the design of the solution and management of the delivery project.

Focus on core business and resource savings

The meter reading and maintenance service included in the total delivery chosen by Oulun Energia is a consistent, effortless and cost-efficient way of utilising real-time consumption data. The network company can focus on maintaining and developing its core

Oulun Energia Siirto ja Jakelu Oy

Oulun Energia Siirto ja Jakelu Oy is a Finnish energy company and part of the Oulun Energia group of companies.

The company operates an electricity distribution network with a total of 2,571 kilometres of powerlines, and its turnover in 2010 was EUR 33.2 million.

AIM AMR

 Unit Type: E120Lt
 Event: Quality log

Nr	Event	Date	Reading Time
315863	Quality log Undervoltage 1, phase 3 Duration: 23 seconds	02.11.2007 14:03:29	28.01.2008 1:44:42
315863	Quality log Undervoltage 1, phase 2 Duration: 12 seconds	02.11.2007 14:03:29	28.01.2008 1:44:42
315863	Quality log Phase 3, error Duration: 23 seconds	02.11.2007 14:03:29	28.01.2008 1:44:42
323712	Quality log Phase 2, error Duration: 6 seconds	30.10.2007 5:51:15	28.01.2008 1:09:31
323712	Quality log Phase 1, error Duration: 6 seconds	30.10.2007 5:51:15	28.01.2008 1:09:31
44338771	Quality log Wrong current direction Off Duration: 2 seconds	01.11.2007 11:27:30	28.01.2008 1:11:01
44338771	Quality log Wrong current direction On	01.11.2007 11:27:28	28.01.2008 1:11:01
44343652	Quality log Power cut Off Duration: 177 seconds	27.10.2007 10:13:09	28.01.2008 2:29:18
44343652	Quality log Power cut On	27.10.2007 10:10:12	28.01.2008 2:29:18
44353617	Quality log Wrong current direction Off Duration: 185 seconds	30.10.2007 15:20:58	27.01.2008 23:47:21
44353617	Quality log Wrong current direction On	30.10.2007 15:17:53	27.01.2008 23:47:21

Gridstream AIM offers comprehensive tools for reporting. As an example, the power quality reports provide valuable information to support network monitoring.

business, as Landis+Gyr will deliver metering data and power quality reports to the network company quickly and safely. Service solutions tailored to the needs of network companies may also include on-demand services, such as relay controls and tariff changes performed when necessary.

Thanks to the service solution, Oulun Energia does not have to take care of the maintenance, operations and training of multiple systems. It can focus on utilising the metering data in its own business

“We can manage our network more efficiently. This is accomplished by monitoring of the distribution network, anticipation of malfunctions and fast response to faults in the network.” Antti Timonen, CEO, Oulun Energia Siirto ja Jakelu

without worrying about the technology and operation of the smart metering system or related costs. Also, the smart

metering costs of are easily predictable and remain under control throughout the life cycle of the system, as the service is invoiced according to the service level agreement.

Oulun Energia Siirto ja Jakelu also decided to save its resources by choosing a turnkey delivery and by sharing the planning of the smart metering solution and management of the delivery project together with Landis+Gyr – the switch to smart metering is performed with specialists who have extensive experience in installation and implementation projects. There is no need for the energy company to increase its personnel resources.

Improved network management and energy-efficiency

The switch to smart metering and utilizing real-time consumption data provide Oulun Energia Siirto ja Jakelu with many new opportunities to rationalize its operations and improve cost-efficiency. Concrete benefits of

smart metering include the acceleration of metering and billing processes, the optimization of network usage and more efficient allocation of resources.

“We can manage our network more efficiently. This is accomplished by monitoring of the distribution network, anticipation of malfunctions and fast response to faults in the network. This will ensure consistent, high-quality electricity distribution to our customers,” says Antti Timonen, CEO of Oulun Energia Siirto ja Jakelu Oy.

With smart metering, also customer satisfaction can be improved by providing invoices based on real-time consumption data and faster customer service. Billing based on actual consumption gives consumers information on their own consumption behavior, as consumption habits and changes are always reflected in a subsequent invoice. Thanks to near real-time consumption data, energy companies also have the opportunity to offer their customers new kinds of energy management tools that motivate the consumer to seek energy efficiency – this also benefits the environment.

“These energy management tools also have social significance: we can advance the reduction in the total energy consumption and the energy efficiency targets set for Finnish consumers,” says managing director Antti Timonen.

Contact:
Landis+Gyr AG
 Theilerstrasse 1
 6301 Zug, Switzerland

Tel. +41 41 935 6000
 Fax +41 41 935 6601
 info@landisgyr.com
 www.landisgyr.eu

Gridstream solution for 90 000 electricity metering points

Our technology:

- + 62,000 new smart electricity meters (E450 and E120LiMe)
- + Gridstream AIM software
- + DC450 data concentrators
- + A communications solution based on PLC and 2G/3G technologies
- + Site Manager installation tool
- + System integration
- + AIMIA integration interface
- + Internet-based Dashboard tool for easy browsing of the data

The system’s ability to utilize multiple communication methods ensures the best possible reading reliability and optimizes costs.

Functional tools ensure the smooth and efficient implementation of the smart metering solution. In hardware installations, Landis+Gyr utilizes its Site Manager application that guarantees a fast and efficient installation process.

The system also includes the Internet-based Dashboard application that the network company’s customer service personnel can utilize, for example, in viewing and managing metering data while serving a customer.