



CASE: Enegia

LEADING ENERGY MANAGEMENT COMPANY RELIES ON NEUTRON REMOTE MONITORS TO COLLECT BUSINESS CRITICAL CONSUMPTION DATA

Enegia, Finland's leading energy management company, depend on detailed and accurate meter data to deliver their service and efficiency improvements. To collect and report this vital data, Enegia use ionSign's Neutron remote consumption monitors.



THE CHALLENGE

Provide optimized energy efficiency improvements to clients with dispersed locations.



THE SOLUTION

Set up ongoing Neutron remote monitoring to gain quality data for making decisions.



THE RESULTS

Quality service to end clients. Flawless stream of data. Minimum device management.



TESTIMONIAL

"For Enegia, flawless time series of reliable meter readings is an absolute necessity. It not only lets us provide a superb service but also helps in keeping data acquisition costs in shape. ionSign's Neutron remote readers have proved to be reliable, affordable and easy to manage."

KATRI HONKONEN, VP ICT, ENEGIA OY

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The Neutron system collates consumption data from electricity, water and heat meters. The data is then conveyed to the EnerKey reporting interface on Enegia's server. Usually hourly reporting is used, and uploaded to the server once per day.

A key part of a property's electricity consumption can occur when the property is not in use. This is known as the **base load**. How the base load builds up depends on the building's use. While lighting and ventilation commonly dominate most base loads, a grocery store may find refrigerators a major consumer. Different base loads for similar properties **give Enegia** an indication of needs for energy-saving measures. Checking lighting and ventilation settings, is often step one.

MANAGE
BASE LOAD
TO MAXIMISE
SAVINGS

MONITOR
HOURLY
TO REVEAL
ANOMALIES

WHY USE
NEUTRON
REMOTE
CONSUMPTION
MONITORING?

INCREASE
EFFICIENCY,
LOCATE
LEAKS

REDUCE
PERSONAL
USAGE

An **hourly consumption report** shows every change in energy usage throughout the day, revealing predictable patterns: consumption rising during opening hours, or actions, such as cleaning. Consumption patterns vary between properties, days, weeks and months. Comparing similar properties **helps Enegia** to reveal dissimilarities, and raise possible causes.

Usually only the reactive power exceeding a toll-free limit agreed with the grid operator, is invoiced. **Monitoring both active and reactive power**, lets the user consider investing in a reactive power compensating system and properly locate it, to decrease grid load and energy losses. Sometimes it's enough to simply check the existing compensation system.

Monitoring the incoming and outgoing water temperature difference of district heating systems, **lets Enegia** assess the **heat system's effectiveness**. The larger the drop, the more efficient the system. If the temperature drop decreases, it's time to check the district heating system for faults.

Remote water metering also detects anomalies in water consumption. A change in the base load, for example, could identify leaks in plumbing fixtures, preventing a great deal of damage and expense.

A property's tenants can monitor their own energy consumption using **Enegia's Energy Window** interface. This makes it easy to detect how **consumption habits and specific actions** affect consumption. In addition, many clients have used the remote meter data to optimise fixed energy subscription fees, saving tens of thousands of Euros.



IONSIGN NEUTRON12-3G REMOTE METER READER

- 12 inputs for 50 pulse interface meters
- Data buffering: 30 days for hourly data
- Simple setup with one SMS message
- Recovers autonomously from power and transfer network failures
- 3G cellular data transfer (LAN and Modbus options available)

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