

BEST PRACTICE IN POLAND – SMART METERING

BASIC INFORMATION

Title of the Best Practice

Monitoring of energy consumption and costs of energy at the educational facilities of the capital city of Warsaw

Energy efficiency measures implemented in the building:

installing smart metering system: controlling electricity consumption, controlling heat consumption, gas consumption, water consumption

Location:

City: Warsaw

Region: Mazovia Region

Country: Poland

GoogleMaps link

<https://www.google.pl/maps/dir//Urząd+Miasta+Stołecznego+Warszawy,+plac+Bankowy+3%2F5,+00-950+Warszawa/@52.2429011,20.9999671,19.17z/data=!4m8!4m7!1m0!1m5!1m1!1s0x471ecc63245124e7:0x3456bc63ac8f2fe6!2m2!1d21.00042!2d52.243016>

Partners involved:

Name: Office of the capital city of Warsaw

Address: Plac Bankowy Street 3/5, 00-950 Warsaw

Website: <http://www.um.warszawa.pl/>

Role in the action: The Project Organizer (Representative) responsible for implementing the investment

Implementation year: 2009 (continuously developed)

Photo:



Smart meter from the monitored system. Source: Office of the capital city of Warsaw

SYSTEM CHARACTERISTICS

Brief Description:

The solution consists of obtaining electricity, district heat, gas and water metering devices from the operators, based on previously correlated operator databases with identification data provided by the local government. The system covers 1167 educational facilities with 900 power meters, 423 district heat supply agreements and 622 gas meters. The collected data is used for conducting studies on ordered power optimization, energy consumption and energy management evaluation.

Type of a building where a smart metering (SM) system is installed:

Educational buildings

Responsible person for monitoring consumption:

Maciej Dadun – main specialist in infrastructure development policy at the Office of the capital city of Warsaw

More information: edadun@um.warszawa.pl

Name of a company which installed the SM system:

Name: Office of the Infrastructure of the Office of the Capital City Warsaw

Address: Marszałkowska 77/79 Street , 00-683 Warsaw

Contact: phone: 22 443 35 96 , email: infrastruktura@um.warszawa.pl

FINANCIAL SOURCES AND FINANCING DETAILS

Total investment value: *[in EUR]* 20 945 457,93 EUR

Sources of financing: internal funds (budget of the capital city of Warsaw) Monitoring is performed as part of the official duties of employees of the Infrastructure Office.

Electricity savings *(MWh/year):* approx. 17 586,21

Or fuel savings *(kg or m³ or kWh or GJ):*

Cost savings *(EUR/year):* 2 562 848,02

PROJECT IMPLEMENTATION BENEFITS

There are increased options for energy consumption analysis at educational facilities and overall energy management assessment at facilities with the same functionality. Innovative aspect of the method consists of data acquisition at source – minimizing error. Metering instrument status can be fully verified on an ongoing basis. The implemented solution eliminates inefficient and inaccurate acquisition of data from about 30 thousand invoices a year. The comfort of building use is improved. The energy consumption and CO₂ emission is reduced. Social impact of the project applies to knowledge for facility managers and district technical services, enabling them to compare energy consumption values for facilities with the same functions and raising awareness of efficient energy management in facilities.

ADDITIONAL INFORMATION

The implementation of the investment caused:

- sharing experiences on energy management in facilities,
- reasonable allocation of funds to overhauls and refurbishments,
- ability to accurately identify the savings potential in terms of assets and costs.