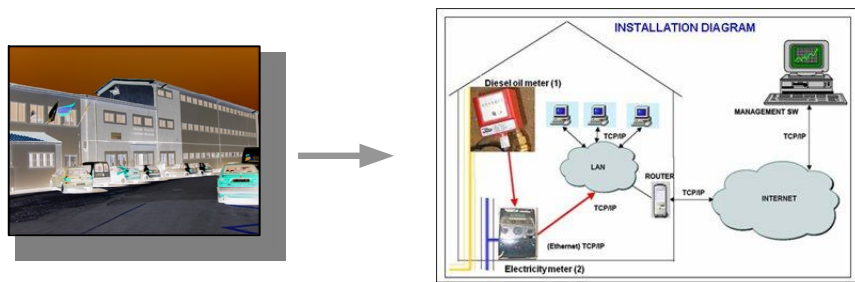


ENERinTOWN Case Study

Energy use in CEIP QUIROGA PALACIOS SCHOOL - Santiago de Compostela

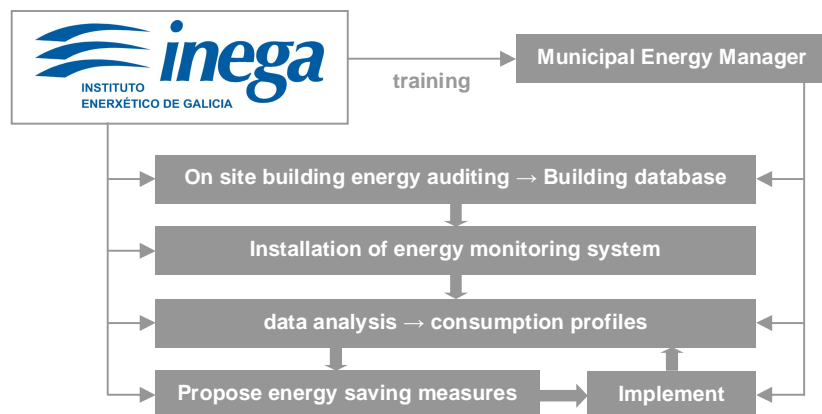
- Client** SANTIAGO DE COMPOSTELA MUNICIPALITY
- Overall objective** Implementing low/zero cost measures to optimize the consumption of energy in this building, after monitoring energy consumption.
- Object data** Scholl of approximately 848 square metres of effective area, with electricity and internet connection, and diesel oil tank. The number of users of the building is variable.



- Initial Situation** This building consumes diesel oil in the central heating system and electricity for lighting, office equipment and other systems.

Half-Yearly Consumption	
ELECTRIC ENERGY	22380 kWh
THERMAL ENERGY	10236 kWh

Realisation model

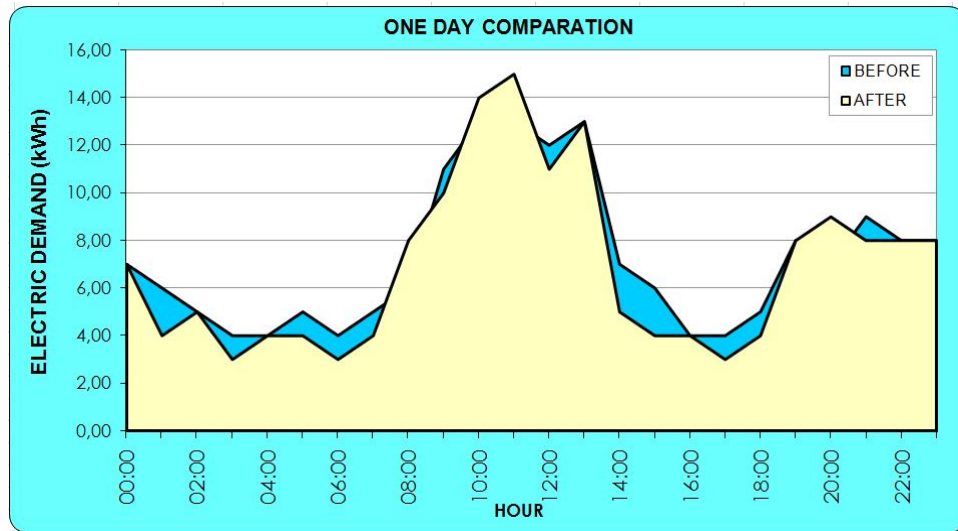


Measures implemented

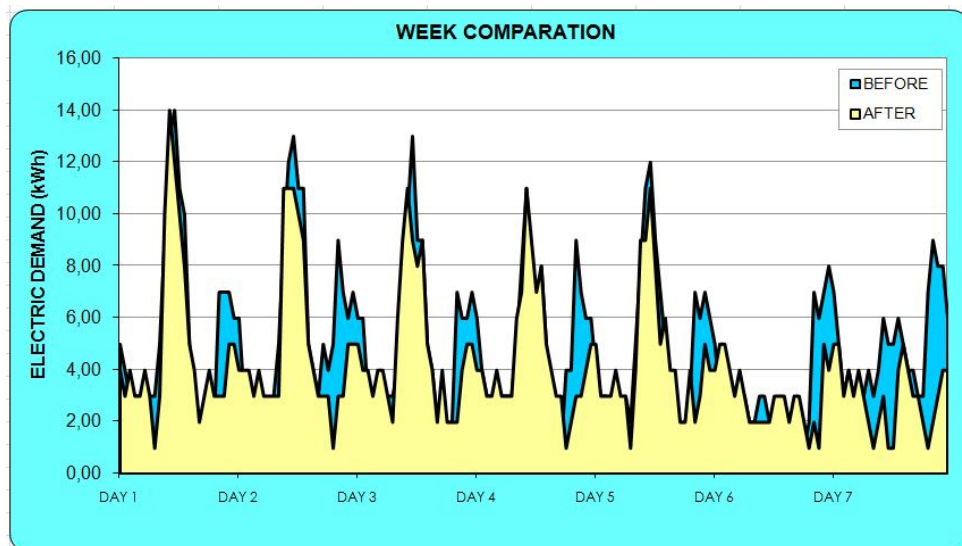
- Energy management via internet realised by a modern energy monitoring system.
- General energy saving behaviour (turn lights off, shut windows, turn thermostats down, etc.).
- Training of the Municipal Energy Manager.
- Room temperatures information of building occupants, rules for room temperatures by the Energy Manager.
- Fine tuning of controls of building energy systems.
- Temperature control to reduce excess heating, lowering of temperature set point.

- Optimization of boiler on/off hours.
- Keep clean the lamps and the luminaries.
- Efficient use of office equipment, turn off when not working.
- Reduction of electric load out of working time.
- Deactivation of lamps situated in places with excess luminance.
- Measures for user motivation, show the data monitored before and after the efficient management of energy.

Results



Consumption before implement energy efficiency measures	174 kWh	SAVING 4,60 %
Consumption after implement energy efficiency measures	166 kWh	



Consumption before implement energy efficiency measures	829 kWh	SAVING 14,35 %
Consumption after implement energy efficiency measures	710 kWh	

Benefits for the clients

- The economical aim to save money for resources, which can partly be reinvested in additional energy saving measures.
- Saving on natural resources, emissions reduction and climate protection.
- Implementation of a professional energy management.
- Creation of the new figure of Energy Manager in the municipality.
- Practical lessons on the responsible use of energy and environment for building users.
- New inovative model of energy monitoring system, via Internet.
- Improved public image of the municipality.
- Identification of sources of energy wasting.
- Changes behavior on the use of energy.
- Increase of the awareness on the energy saving.

Assistance provided

- SICA S.A., software MEDCOM and SIGEST ENERinTOWN.
- CONTOIL®, oil meter VZO 4-RE 0.1
- ZIV Medida S.L., electricity meter 5 CTD

Contact

INEGA, Instituto Enerxético de Galicia
www.inega.eu
Rúa Ourense 6, 15701
Santiago de Compostela, Spain