intense
energy efficiency

OŻARÓW
POLAND

Infomation about the municipality

Location: Southeast Poland
Altitude: 92 m
Inhabitants: 12,000
Expected development of the municipality:
Renovation & improvment of public buildings.
Construction of new residental housing.

Miniproject title

SWIMMING POOL UPGRADE - IMPROVING TENDERING DOCUMENTATION FOR SUPPLY & INSTALLATION OF HEAT EXCHANGER & SOLAR PANELS IN THE SWIMMING POOL „NEPTUN".

MINI-PROJECT FACT SHEET

SHORT DESCRIPTION

1. Project background & goal

The main interest of Ozarow municipality was to realize examples of concrete construction/reconstruction projects which can practically demonstrate benefits of applying energy efficiency measures.
As a continuation of a number of public buildings thermomodernisation activities in Ozarow-municipality, the project of utilization of renewable sources in the swimming pool facility was chosen because of highest costs for heating relative to other municipal buildings (the facility consumes 30% of all energy for heating in all municipal buildings). It was planned to enable the use of renewable energy sources and energy recuperation of 1,580.40 GJ/year.
A swimming pool is a good place for a demonstration project. But not only the technical application should be visible for the broad audience of customers, but also the process how to come to really good results.
The Goal was not only to present technical solutions, but also the practice of energy optimized planning process. One goal was to improve energy-wise the technical documentation for procurement of the new equipment, in order to reduce the use of natural gas and electricity, as well as CO2 emissions, by installing equipment with higher energy efficiency potential.

2. Main project aspect/topic

> Installation of solar panels (25 pcs) of 150 m2 in surface,
> Installation of subsoil heat exchanger for heating water in the swimming pools and air in the building.
> Reconstruction of existing ventilation system

3. Main Energy Efficiency aspects

Use of renewable energy source and increase of energy efficiency

4. Miniproject activities

> Consultations with external and local experts regarding existing technical documentation for renovation of the swimming pool
> Preparing tendering documentation for implementing the construction, with special regard to energy efficiency and quality assurance requirements
> Conducting public procurement (tendering) procedure
> Selection of winning tender
> Construction works/realisation of renovation
> Formal presentation of the swimming pool construction - promotion event for neighbouring municipalities
> Public opening of renovated swimming pool – demonstration of shining example.

5. Main challenges

> New tendering requirements as a challenge for Polish contractors, due to little experience in deployment and maintenance of such technologies
> Low development of energy efficiency and RES technologies in the Polish market, especially compared with Western Europe
> How to guarantee EE and RES gains during the design and construction processes
> Need for expert advice on quality control on the ground, due to lack of EE and RES experience in local administrations

6. Key actors and their role

> Ożarów municipal authority; German and local consultants; construction companies

Responsibility for implementation: Ożarów municipal authority

7. Main steering instrument(s) used by municipality

> Introducing energy-optimized tendering procedures in public (re)construction works
> Quality control requirement included in the call for tenders – a mechanism for guaranteeing energy gains to the client (municipality)

8. Concrete miniproject results

> Tendering procedure for the construction works on the swimming pool enhanced from the point of view of energy efficiency, by requiring long-term guarantees for future energy gains by tenderers.
> Quality control: installing systems to measure energy saving (datalogger with a public display to demonstrate energy performance)

9. Added values/lessons for transfer and dissemination:

> Energy-optimized tendering procedures can be applied to thermomodernization procedures of other public utility buildings.
> Section 'Frequently Asked Questions for municipal (re)construction projects' that reflects this tendering experience can be provided on municipal web or via other communication channels, as a useful reference to future tenderers, and for the general public.
> Good experience with special technical equipment - subsoil heat exchanger – that uses renewable energy located in the ground at a depth of 1-4 m, with the capacity of 25.000/m3 and annually obtained heat energy amounting to -476 GJ.

AFTER INTENSE

10. Financing plan

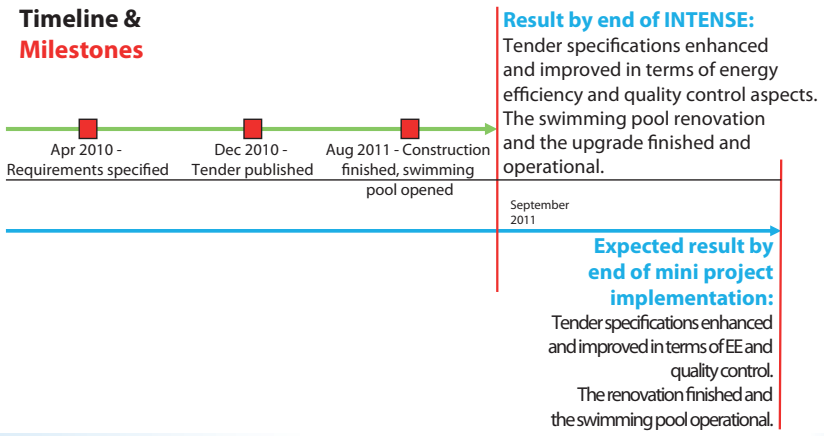
> 187 500 EURO (62%)– EU Rural Development Programme
> 119 025 EURO (38%) - budget of Ożarów municipality

11. Expected result by end of the total project

> 1,580.40 GJ/year of energy supplied to the building through renewable energy sources and recuperation.

12. CO_2 reduction potential of the project:

115,46 tonnes of CO2 annually



Contact:
Mr. Paweł Rędziak
Deputy Mayor
E: zastepca@ozarow.pl

Supported by INTELLIGENT ENERGY EUROPE