

Paving the way for Sustainable Energy in Europe ENNEREG Good Practice in Sustainable Buildings

# Thermal renovation of the hospital in the city of Olsztyn Twinning Region Warmia-Mazuria, Poland





#### Hospital in Olsztyn thermorenovation

## **Summary**

In winter time, despite full operation of the boiler room, the temperature in hospital space oscillated around 9-10 °C! The following problems occurred:

- Extremely poor insulation of the walls
- Paint scaling
- Inside corrosion of the walls, accompanied by molds
- Inefficient heating system.

All of the above combined with often failures of the heating system were fatal for further activity of the institution.

Hospital's Management decided to start up a project "Complex solution for energy conservation in hospital". Energy audits confirmed huge losses of heat due to lack of insulation and leaky windows and doors.

Exploited gas boilers were very inefficient, and connection to the municipal heating grid was not possible due to excessive distance. Retrofitting works covered:

- 1. Insulation of external walls roofs and ceilings over basements
- 2. Exchange of windows and doors
- 3. Modernisation of boiler room, exchange of heating system

## Olsztyn – Twinning Region Warmia-Mazuria, Poland



### **Results and Impacts**

•significant improvement in the treatment conditions for patients

•reduction of the fuel consumption (by 40%) and of the fuel costs (by  $\approx$  2 500  $\in$  per month)

- reduction of the emissions:
- o SO2 by 96,4%
- o NO by 11,29%

In total extra insulation was done of:

- 6459,47 m<sup>2</sup> of walls
- 4353,82 m<sup>2</sup> of roofs

and

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- 375 windows and
- 20 doors

with the total area of 918,95 m<sup>2</sup> were exchanged.

New, 840 kW biomass boiler was installed. It is fuelled with wood chips, and reaches efficiency of 89%.

### **ENNEREG Contact**

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## **Further Information**

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