



POLISH AND NORWEGIAN CITIES
together for climate and energy

PASSIVE BUILDING - SEAT OF THE VFEP&WM IN GDAŃSK

Sector: Energy efficient buildings

Timeframe: 2015 – 2016

Location: 8 Rybaki Górne str., Gdańsk,
Poland



PROJECT BACKGROUND

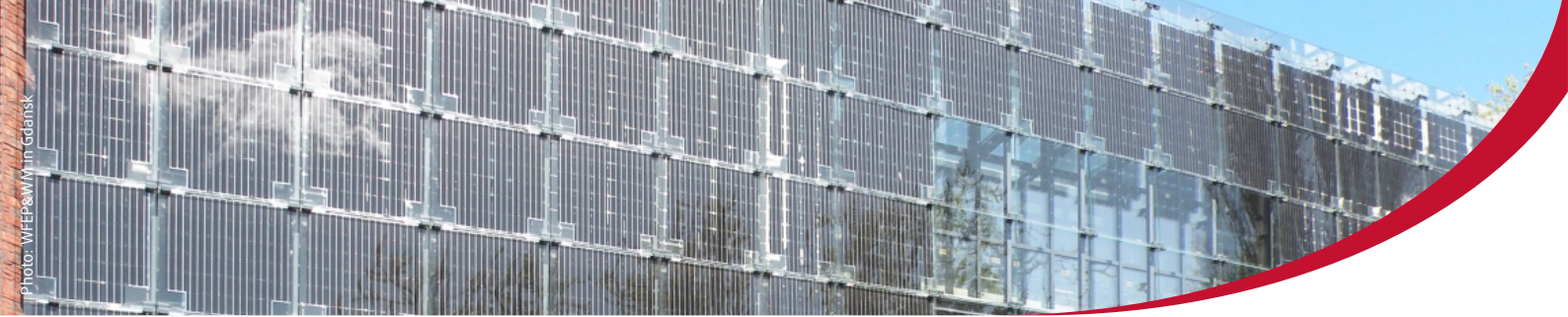
Gdańsk (approx. 461 800 inhabitants) is located in the northern part of Poland, in the Pomeranian Voivodeship. For many years the city has been a seat of the Voivodeship Fund for Environmental Protection and Water Management (VFEP&WM). Since 2007 the Fund is acting as the Managing Authority for the 2 priority axes of the **Infrastructure and Environment Operational Programme** - axis I: Water and sewage management and axis II: Waste management and the earth protection. This function was assigned to the organisation on the basis of the agreement signed with the Minister for Environment. VFEP&WM in Gdańsk is also a Territorial Coordinator of the Covenant of Mayors and as such cooperates with cities and municipalities in the field of energy saving.

PROJECT DESCRIPTION

Management Board of the Fund decided to move its seat to a new location as the previous one was difficult to access and not adapted to the needs of older and disabled people. Another important factor was also the lack of adequate conditions and space for organising trainings and providing wide consultation services.

New, environmentally friendly seat of the Fund was built using state-of-the-art energy saving solutions. As a result its energy demand and operation costs

are low. Thermal insulation of the walls, roof and floors has parameters that considerably exceed current standards in force, which prevents heat losses in winter and limits overheating in summer. The building façade is mainly composed of glass and red brick, which was necessary due to the fact that it was constructed on the area protected by the historic preservation officer and had to fit into the surroundings. New buildings has 10 meters of height and 1370 m² of office area. Except for the offices, inside there are also conference & training rooms, social facilities and a library, where many books and articles on environmental protection may be found. The ground floor is used for organising conferences, workshops and trainings. It can be divided into several smaller rooms or used as a single conference area. All of the offices have floor heating, which can be individually regulated, and the ones oriented towards the south are additionally equipped with air conditioning. PV panels have been installed on the roof, in the skylights and on the southern façade. They will produce approx. 40 kW of electric energy. Building operating parameters are controlled and regulated by the central management system called BMS (Building Management System), which collects and gathers in one place information coming from the whole building and allows for immediate reaction to any changes in external or internal conditions. Thanks to BMS it is possible to ensure optimum energy (and other resources) consumption, improve building's functionality, increase security and improve building users' comfort.



In order to encourage employees to use alternative, more environmentally friendly modes of transport, the building contains changing rooms and bathrooms for cyclists. Another ecological solution is the green roof. Sedum plants seeded there don't require frequent watering or nurturing but help to increase biologically active area of the building and create another green space within this part of the city. The Fund moved to the new seat in March 2016. The building is open both for the VFEP&WM beneficiaries and the Gdańsk inhabitants and tourists.

FINANCING SCHEME

Total cost of the construction of the VFEP&WM's new seat came to PLN 7,3 million and was entirely covered from the Fund's own budget.

PROJECT RESULTS

VFEP&WM's new seat in Gdańsk is the first public utility building in the Pomeranian Voivodeship that uses state-of-the-art ecological solutions. It is a showcase in the area of environmentally friendly construction. This modern and energy efficient facility promotes RES use and sets good practice standards for other public buildings built in the region. The Fund wants to encourage other organisations and companies to follow its lead. Especially that after 2018 all newly constructed public buildings will have to have energy efficient lighting, heating and heat recovery systems.

During the commissioning works there were conducted thermographic readings and a pressure tightness test of the building. All the tests ended with a very good results. What is more, the total amount of electricity produced in the building should exceed by approx. 10-11% its energy demand. It should be noticed, however, that due to the weather conditions the energy yield may not be steady. During the summer months electricity surplus will be transferred to the grid, making the Fund an energy supplier, while in the winter the institution will be able

to get back the same amount of electricity from it.

New facility, located at the banks of the Radunia Canal, contributed to the revitalisation of the areas adjacent to the old shipyard territory that was earlier dishevelled and disordered.

DEVELOPMENT PROSPECTS

It is the Fund's intention that all interested people are able to get familiar with the environmentally friendly solutions used in its building, therefore the visitors will be able to see the energy unit and the building management system, as well as the "hotels" for pollinating insects and bird feeders. It is also planned to install a charging station for electric vehicles in front of the building. Moreover, the Fund intends to install a gas co-generation unit that will incinerate natural gas to produce both heat and electric energy.



Photo: VFEP&WM in Gdańsk

MORE INFORMATION

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