

Realised project street lighting: Municipality Gdańsk-Zaspa – Park JP II, Pomerania

Project background and objectives

The lighting in the park situated in Gdańsk - Zaspa was worn out and the illumination level was insufficient. This resulted in frequent repairs and lower safety for people enjoying the park. The lighting, however, was not refurbished due to insufficient funds for the investment. Finally, a comprehensive lighting renovation in the park was implemented with financial support from the Voivod Fund for Environmental Protection and Water Management in Gdańsk in the framework of a pilot edition of the programme "Energy Saving Lighting of Pomerania".



Project description

The main objective of the project was to improve the technical state and energy efficiency of the street lighting system as well as safety conditions in the park. The City of Gdańsk applied for co-financing for the project. One of the selection criteria was the ecological effect calculated as PLN/Mg CO₂. The maintenance costs were not included in the calculation. The project consisted of exchanging the sodium lighting to LEDs as well as modernising the infrastructure. The co-financing by the Voivod Fund covered 28% of the investment. The contract was awarded at the end of March 2015. The new lighting was operational in September 2015.

Eligible costs included:

- purchase and installation of the lighting points,
- purchase and laying of the power supply cable,
- purchase and installation of the energy management equipment,
- necessary documentation (including electrical audit).

Facts

- **Population:** 460,427 inhabitants Gdansk/ 29,342 Zaspa Suburb of Gdańsk
- **Type of streets:** residential area
- **Electricity cost savings:** 645 €/year
- **Reduction electricity consumption:** 7,168 kWh/year
- **CO₂ reduction:** 6.5 tons/year
- **Investment costs:**
 - 35,000 € (total investment)
- **Financial support:** WFOS (Regional Fund for Environmental Protection)
- **Subsidies:** 6 000 € (WFOS)
- **Monitoring of the environmental effects:** for 3 years

Further information:

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Streetlight data of the project	Before renovation	After renovation
Total installed electric capacity	1.68 kW	1.32 kW
Total number of lamps	40	25
Number of lighting points (luminaires)	24	25
Annual electricity consumption	10,700 kWh	3,500 kWh
Annual electricity costs	3,107 Euro	1,518 Euro
Annual maintenance costs*	456 Euro	456 Euro

* maintenance costs are calculated for the whole City of Gdańsk as average per lamp, therefore these costs are the same for the situation “before” and after”

Results

The lighting along the paths in the park as well as the necessary infrastructure were modernised. Safety has been improved. Energy savings have reached almost 70 %.

Support by the facilitation service

The facilitation service supported the municipality throughout the assessment of the energy savings and CO₂ reduction.



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