

CASE STUDY

DEEP ENERGY MODERNIZATION OF 24
EDUCATIONAL BUILDINGS IN THE CITY OF
ZGIERZ IMPLEMENTED IN THE PPP FORMULA

ZGIERZA CITY HALL



BULLETS IN CONCISE MANNER:

- **increasing the energy efficiency of 24 educational buildings in the city of Zgierz**
- **hybrid project financed by the PPP contract and the ERDF**
- **annual primary energy savings of 12 million kWh**
- **Annual CO 2 emission reduction 3 195 050 kg**



PITCH-TALK SUMMARY

The assumption of the project was to carry out a deep energy modernization of 24 public buildings in the city of Zgierz in order to increase their energy efficiency. The investment is a hybrid project implemented in the public-private partnership formula.

The planned activities contribute to the rationalization of the use and generation of energy in the buildings covered by the project, which will allow to reduce energy consumption and will contribute to the reduction of air pollutant emissions responsible for the formation of the so-called low emission and greenhouse gas emissions, including by: insulation of facilities, replacement of: windows, external doors, heat sources, internal lighting and carrying out all accompanying works, which are part of renovation and modernization works.

The direct recipient of the project is the Zgierz City Commune. The indirect beneficiaries of the project will be people using the facilities, while the final recipients of the project will be residents of the city of Zgierz and the surrounding area.

CASE CONTENT AND ISSUE

The main goal of the project was the search for financing the comprehensive thermal modernization of 24 educational buildings. The budget of the Commune of the City of Zgierz does not have the possibility to find funds for such large investments. By the decision of the Mayor of Zgierz, the possibility of financing the investment was analyzed.

We searched for the possibility of implementing the investment simultaneously in all 24 educational buildings.

The second aspect was the very high cost of the investment, which had to be incurred in two tranches. A one-time payment of approximately PLN 25 million may disturb the commune's budget. Assessment of the

payment application and transfer of money from external funds takes time. Waiting for a refund may take up to six months. Previous experience showed that the settlement of the co-financing and the extension of the assessment of payment applications forced payments from the commune's budget, which endangered its financial liquidity. In the PPP contract, the commune does not spend so much money, but it repays in installments within 15 years after the completion of the investment, and the payments come from savings obtained as a result of the implementation of thermo-modernization works.

Finally, a decision was made to implement the investment in the public-private partnership model for 24 educational institutions in the Gmina of the City of Zgierz along with co-financing from the ERDF as part of the Integrated Territorial Investments ROP LV for 2014-2020, because only it ensured the implementation of both of the above premises.

The subject of the public-private partnership agreement signed with the ENGIE group is the thermal modernization of 24 educational buildings in Zgierz. The scope of the project includes facilities for nurseries, kindergartens, primary schools, middle schools, high schools and one swimming pool.

BEFORE



AFTER



SOLUTIONS APPLIED

The scope of the project includes:

1. Preparatory work, including preparation of project documentation, application documentation for co-financing from the ERDF and negotiation of a public-private partnership agreement with the ENGIE group
2. Construction works, i.e. comprehensive thermo-modernization works (including facades, windows, doors, central heating replacement, ventilation etc.) and other renovation works (improvement of sanitary conditions, repairs of common rooms (corridors, lobbies), repairs of installations - where necessary , other work necessary to improve energy efficiency and the installation of an energy management system
 - Project management, including: investor's supervision, project management and the applicant's potential, promotion.

Project value and funding

- Total project value: PLN 52,631,178.63
- The value of co-financing from the ERDF: PLN 35,226,754.02

- Total value of eligible expenses: PLN 41,649,035.28
- Total value of non-eligible expenses: PLN 10,982,143.35



RESULTS

- total area of modernized buildings 52,000 m²
- the cost of the PPP contract is approximately PLN 56 million
- reduction of energy demand by 12 million kWh / year, including reduction of consumption:
 - heat energy of 9.26 million kWh
 - electricity 313 490 kWh
 - reduction of CO₂ emissions 3 195 050 kg / year

	CO₂e emissions	Energy consumption
SMEs	-	-
Residential buildings	-	-
Public buildings	3 195 050	1,031.81
Total savings	kg CO₂ / year	toe / year

LESSONS LEARNED

- Investments should be carefully prepared in advance in all formal, legal, design and construction terms
- specialists in the field of PPP are necessary (staff + external advisers)
- it is necessary to carefully describe the subject of the contract and precisely specify the requirements and material scope
- specific structure of the contract, binding for 15 years, all provisions must be carefully foreseen
- very detailed contract negotiations take up to a year
- PPP contract subject to receipt of ERDF funding
- necessary great care for the formal, legal and construction side
- constant dialogue between the parties to the PPP contract - talks about each diagnosed risk, solving problems before they escalate
- a PPP partner is a general contractor who employs subcontractors - this creates a network of connections between several or even several dozen different entities, the necessary coordination
- buildings made at the same time with the same colors and visualization
- ensuring the achievement of the planned effects



NEXT STEPS

The Gmina of the City of Zgierz plans to continue activities aimed at energy modernization of buildings, in particular facilities included in the commune's housing stock. This is another challenge due to the historic nature of many buildings, which are the heritage of wooden buildings, the so-called weaving houses. At the same time, it is planned to use the experience from the implementation of the project in the PPP formula as part of other investments, including those related to the construction of new residential buildings.

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Disclaimer

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This Case Study was elaborated as part of the RoundBaltic project bringing together representatives of the financial and energy efficiency sectors at regional and national roundtables to discuss and find solutions to the challenge of energy efficiency finance in the three target countries Poland, Latvia and Denmark.

Key focus areas have been to ensure an investment friendly framework along designing of financing instruments in accordance with the EU financial pillars more effective use of public funds, aggregation and project development assistance and de-risking.



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