

# Energy efficiency financing models - case: Poland

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Deliverable D.T 2.3.2

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## TABLE OF CONTENTS

TABLE OF CONTENTS .....	1
1. INTRODUCTION.....	2
2. AVAILABLE INCENTIVES AND FINANCING MECHANISMS IN POLAND .....	3
2.1. OVERVIEW OF FINANCING MECHANISMS FOR EE .....	3
2.2. LIST OF INCENTIVES FOR EE.....	4
3. ASSESSMENT OF THE NEED FOR INCENTIVES FOR EE PROJECTS .....	5



## 1. INTRODUCTION

As any activity, energy renovation has its related costs, which vary according to the depth of the refurbishment, i.e. number and complexity of implemented energy efficiency (EE) measures. Therefore, any decision on energy renovation of a building must carefully evaluate these costs and ensure financing, in order to reap the benefits after the implementation.

The most usually utilised financing models for EE were presented and discussed in the **Deliverable D.T2.2.1 - Collection of existing financing mechanisms**. They include: own funding, loan financing, ESCO model (Energy Performance Contracting – EPC), public-private partnership (PPP), grant schemes or some combination of the beforementioned models. All financing models may be compared based on several important criteria as demonstrated in the Table below. There is no universally best solution, but for each particular situation (country, region, building) an optimal solution should be tailor-made.

Table Błąd! W dokumencie nie ma tekstu o podanym stylu. **1 - Comparative analysis of considered alternative models**

Criteria/ Model	Own financing	Loan financing	Grants	ESCO model	PPP model
Neutral impact on government debt	😊	☹️	😊	😐	😊
Administrative procedure complexity	😊	😐	😐	😐	☹️
Guarantee of savings / service standard	☹️	☹️	😐	😊	😊
Capacities and capabilities of the public bodies to implement the model	😊	😐	😐	☹️	☹️
Estimated multiplier effect	☹️	☹️	😐	😊	😊
Projects for which the model is appropriate	Simple EE measures with short pay-back periods	Simpler EE measures with shorter pay-back periods	More complex projects, with longer pay-back periods	Highly complex projects, with moderate pay-back periods (up to 10 years)	Highly complex projects, usually with new buildings, long-term

Usually, energy efficiency projects in public buildings combine two financing models. Rarely, more than two financing models are used. Research of usual practices in the Project Partner countries showed that dominantly grants (if available) are combined with own financing.

Recently, with the availability of EU structural and investment funds for energy efficiency across the MS, the blending of such funds with other financing models becomes increasingly interesting. The blending refers to combination of EU grants with other financing mechanism such as loans or ESCO/PPP model.



The deliverables D.T2.2.1 presented available financing models in each participating country and, based on the Project partners' feedback, provided a comparative analysis of availability, current usage and planned usage of different financing models.

This document builds upon the previous data gathered on and analyses of available and desirable financing models and provides the list of all available incentives and financing mechanisms for energy efficiency actions in Poland.

## 2. AVAILABLE INCENTIVES AND FINANCING MECHANISMS IN POLAND

### 2.1. Overview of financing mechanisms for EE

Poland has well developed financing mechanisms for EE projects in schools. Schools are owned by cities and there are well established budget items for planning capital expenditures of investments in schools.

There are several credit lines available for EE projects with two of them - Council of Europe Development Bank and at the European Investment Bank - being the most attractive with interest rates of 1.85%.

There are also many grant schemes using EU financing from European Regional Development Fund or Cohesion Fund (grant rates 80-85%) and there is also national co-financing available from National and Regional Fund for Environmental Protection and Water Management (25-40%).

The ESCO market in Poland is assessed as being at the initial stage of development. PPP models has been previously used for EE projects in limited number of municipalities.

**Table 2 - Overview of financing mechanisms for EE projects in schools**

Criteria/ Model	Own financing	Loan financing	Grants	ESCO model	PPP model
Availability	√	√	√	√	√
Previous and current usage	√	√	√	-	-
Planned usage	√	√	√	-	-

In table below the sources for more information on financing mechanisms for EE are provided.

**Table 3 - Overview of sources for more information about financing mechanisms for EE**

Information	Source
General information about EE	City of Warsaw <a href="http://infrastruktura.um.warszawa.pl/">http://infrastruktura.um.warszawa.pl/</a> National Fund for Environmental Protection and Water Management <a href="http://www.nfosigw.gov.pl">www.nfosigw.gov.pl</a> Cluster – Bioenergy for Region <a href="http://www.bioenergiadlaregionu.eu/centrum-transferu-technologie-&lt;br/&gt;oze/laboratorium-efektywnosci-energetycznej/">http://www.bioenergiadlaregionu.eu/centrum-transferu-technologie- oze/laboratorium-efektywnosci-energetycznej/</a>
Information about loan financing	Bank Gospodarstwa Krajowego <a href="http://www.bgk.pl">www.bgk.pl</a> BOS Bank <a href="https://www.bosbank.pl/">https://www.bosbank.pl/</a>



<b>Information about ESCO financing</b>	ESCO in Poland <a href="http://www.escowpolsce.pl">www.escowpolsce.pl</a>
<b>Information about PPP financing</b>	Public-Private Partnership Platform <a href="http://www.ppp.gov.pl">www.ppp.gov.pl</a>

## 2.2. List of incentives for EE

Analysis of energy efficiency improvements' costs and benefits in the selected schools demonstrated that EE projects need high grants in order to demonstrate financial feasibility. It is, therefore, very important to ensure incentives in form of grants as well as to inform potential users on their existence and terms and conditions for their utilisation.

An overview of available incentives for EE projects in schools in Poland is given in Table below.

**Table 4 - Overview of incentives and financing mechanisms for EE projects in schools in Poland**

Criteria/ Model	Grant programme 1	Grant programme 2
<b>Name of institution</b>	Mazovian Unit for Implementation of EU Programmes	National Fund for Environmental Protection and Water Management
<b>Name and description of grant</b>	Regional Operational Programme of Mazovia Voivodship 2014-2020, Measure 4.2 Energy efficiency - Energy renovation of buildings and use of renewable energy sources in the public sector buildings	Priority program "Improving air quality. Part 6) Public utility buildings with a higher energy efficiency standard"
<b>Max. percentage of subsidy (%)</b>	80%	40%
<b>Max. value of subsidy (€)</b>	€ 813.953,49	-
<b>Availability</b>	periodical	periodical
<b>Legislative reference</b>	ERDF	Act of 27 April 2001 on Environmental Protection Law (Journal of Laws of 2017, item 519, as amended),
<b>Possible combination with other incentives/financing mechanisms</b>	YES	YES
<b>More info</b>	<a href="https://www.funduszedlamazowska.eu">https://www.funduszedlamazowska.eu</a>	<a href="http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/poprawa-jakosci-powietrza-energetyczne/">http://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/poprawa-jakosci-powietrza-energetyczne/</a>

Criteria/ Model	Grant programme 2	Grant programme 3
<b>Name of institution</b>	Ministry of Environment of Investment and Development	Regional Fund for Environmental Protection and Water Management in Warsaw
<b>Name and description of grant</b>	Technical Assistance Operational Programme (Cohesion Fund) – Call for PPP advisory services	Programme OA-2 "Modernisation of electrical lighting"
<b>Max. percentage of subsidy (%)</b>	90%	20%
<b>Max. value of subsidy (€)</b>	-	-
<b>Availability</b>	constant	constant



<b>Legislative reference</b>	Cohesion Fund	Act of 27 April 2001 on Environmental Protection Law (Journal of Laws of 2017, item 519, as amended)
<b>Possible combination with other incentives/financing mechanisms</b>	YES	YES
<b>More info</b>	<a href="http://www.ppp.gov.pl/Aktualnosci/Strony/Wielosektorowy_nabor_projektow_ppp.aspx">http://www.ppp.gov.pl/Aktualnosci/Strony/Wielosektorowy_nabor_projektow_ppp.aspx</a>	<a href="http://wfosigw.pl/strefa-beneficjenta/programy2019/JST/OA_2">http://wfosigw.pl/strefa-beneficjenta/programy2019/JST/OA_2</a>

Criteria/ Model	Grant programme 5
<b>Name of institution</b>	Regional Fund for Environmental Protection and Water Management in Warsaw
<b>Name and description of grant</b>	Programme OA-1 “Reducing emissions of pollutants into the air, reducing heat consumption and the use of renewable energy sources”
<b>Max. percentage of subsidy (%)</b>	25%
<b>Max. value of subsidy (€)</b>	-
<b>Availability</b>	constant
<b>Legislative reference</b>	Act of 27 April 2001 on Environmental Protection Law (Journal of Laws of 2017, item 519, as amended)
<b>Possible combination with other incentives/financing mechanisms</b>	YES
<b>More info</b>	<a href="http://www.ppp.gov.pl/Aktualnosci/Strony/Wielosektorowy_nabor_projektow_ppp.aspx">http://www.ppp.gov.pl/Aktualnosci/Strony/Wielosektorowy_nabor_projektow_ppp.aspx</a>

### 3. ASSESSMENT OF THE NEED FOR INCENTIVES FOR EE PROJECTS

The feasibility of EE projects depends on both technical potentials of applied measures in terms of energy savings and on the conditions of financing mechanisms available for their support. The financing gap occurs when the investment in EE cannot be paid off from savings on energy costs. The incentives in forms of grants are needed for closing the financing gap. The assessment of the need for co-financing in EE projects in participating schools in Poland is performed with assumptions shown in the Table below.

**Table 5 - Overview of incentives for EE projects in schools**

Criteria/ Model	Value
<b>Interest rate</b>	1,50%
<b>Discount rate</b>	5%
<b>Life cycle of EE renovation (years)</b>	25
<b>Administrative, legal and architect cost</b>	10%
<b>Other bank cost</b>	3%
<b>ESCO cost</b>	20%
<b>PPP cost</b>	30%
<b>Max % of grant available</b>	85%



The following Table shows the results of the assessment in terms of co-financing needed to close the financing gap.

**Table 6 - Co-financing needed to close the financing gap**

**Dodati tablicu s rezultatima**