Interreg CENTRAL EUROPE
FEEDSCHOOLS
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Energy efficiency financing models – case: Czech Republic

Deliverable D.T 2.3.2

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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 Cintracting – 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.

TableBłąd! 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 provideds the list of all available incentives and financing mechanisms for energy efficiency actions in Czech Republic.

2. AVAILABLE INCENTIVES AND FINANCING MECHANISMS IN CZECH REPUBLIC

2.1. Overview of financing mechanisms for EE

Czech Republic 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.

Debt financing is also common and very attractive due to interest rates below 2.5%.

There are also many grant schemes using either EU funds from Operational Programme Environemnt or using national funds through "State programme on support of energy savings and use of RES". Grant rates range from 35 to 50% for reconstruction projects (up tp 70% for project preparation) and there is a trend of decreasing grant rates, due to which this mechanism is becoming less and less utilised.

ESCO market is well developed and EPCs are usually concluded for several public buildings of the same owner, so called "packages" as smaller projects are usually not economically feasible. PPP market is developed, but this type of financing is not used for EE projects but rather for big infrastructural projects.

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 inromation on financing mechanisms for EE are provided.

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

Information	Source
General information about EE	Ministry of Industry and Trade https://www.mpo.cz/en/energy/
Information about loan financing	Komerční Banka - Municipal Investments and Grants https://www.kb.cz/en/corporations-and-institutions/products/loans-and-financing/investment-financing/investment-loan-in-czk-or-eur-for-municipalities Česká spořitelna https://www.csas.cz/cs/verejny-sektor
Information about ESCO financing	APES (Association of energy service providers) http://www.apes.cz/" Ministry of Industry and Trade - Energy performance contracting

	https://www.mpo.cz/cz/energetika/energeticka-ucinnost/energeticke-sluzby/energeticke-sluzby-se-zarukou---energy-performance-contracting-epc--105425/
Information about PPP financing	/

2.2. List of incentives for EE

Analysis of energy efficiency improvements' costs and benefits in the selected schools demonstared 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 existance and terms and conditions for their utilisation.

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

Table 4 - Overview of incentives for EE projects in schools

Criteria/ Model	Grant programme 1	Grant programme 2	Grant programme 3
Name of institution	Ministry of Environment	Ministry of Environment	Ministry of Industry and Trade
Name and description of grant	PA5 SO1: To reduce the energy intensity of public buildings and increase the use of renewable energy sources	Combination of subsidy OPE PA5 SO1 and EPC brings further subsidy bonus of 5%	"State programme on support of energy savings and use of RES" (national fund – state budget)
Max. percentage of grant (%)	35-50%	5%	50% - 70% depending on sub-programme*: 50% for 1B and 1C 70% for 2D, 2E and 2F
Max. value of grant (€)	-		4.000,00 – 80.000,00 € depending on sub-programme: 80.000,00 € for 1B and 1C 20.000,00 € for 2D 8.000,00 € for 2E 4.000,00 € for F
Availability	Calls within OPE	calls within OPE	-
Legislative reference	ERDF - Operational Programme Environment	ERDF - Operational Programme Environment	-
Possible combination with other incetives/financing mechanisms	NO		YES
More info	www.opzp.cz	www.opzp.cz	https://www.mpo-efekt.cz/upload/6cd6d069e64a28ff10122424d61b29ea/_19_efekt_vyzva_11_2e_epc_2___2.pdf

** List of Sub-programmes:*

Sub-programme 1B: Reconstruction of heating system and heating source

Sub-programme 1C: Energy efficiency measures in buildings implemented by using EPC method
Sub-programme 2D: Implementation of energy management systems
Sub-programme 2E: EPC feasibility studies (analysis whether/which buildings are suitable for EPC)
Sub-programme 2F: Preparation of energy efficiency projects

3. ASSESSMENT OF THE NEED FOR INCENTIVES FOR EE PROJECTS

The feasibility of EE projects depends on both technical potentials of applied mesures 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 glosing the financing gap. The assessment of the need for co-financing in EE projects in participating schools in Czech Republic is perfomed with assumpotions shown in the Table below.

Table 5 - Overview of incentives for EE projects in schools

Criteria/ Model	Value
Interest rate	2,5%
Discount rate	4,0%
Life cycle of EE renovation (years)	20
Administrative, legal and architect cost	6-12%
Other bank cost	2,5%
ESCO cost	20,0%
PPP cost	n/a
Max % of grant available	85,0%