Alternative non-public sources and mechanisms for financing investment

EFFECT4buildings Toolbox:

Funding; Annex 6

The project “Effective Financing Tools for implementing Energy Efficiency in Buildings” (EFFECT4buildings) develops in collaboration with public building managers a comprehensive decision-making support toolbox with a set of financial instruments: **Financial calculation tools**; **Bundling**; **Funding**; **Convincing decision makers**; **Energy Performance Contract**; **Multi Service Contract**; **Green Lease Contract**; **Prosumerism**. The tools and instruments chosen by the project has the biggest potential to help building managers to overcome financial barriers, based on nearly 40 interviews with the target group. The project improves these tools through different real cases.

To make sure building managers invest in the best available solutions, more knowledge on different possibilities is needed as well as confirmation from colleagues that the solutions performs well. EFFECT4buildings mapped **technological solutions** for energy efficiency in buildings with the aim to share knowledge and experiences of energy efficiency solutions among building managers in the Baltic Sea Region.

This document includes analysis of the available non-public sources and mechanisms for financing investment projects in the field of energy efficiency in publicly used buildings in individual project countries.

Private resources of business entities, including those taking part in ESCO projects; commercial bank offers dedicated exclusively to such enterprises.

Partners

EFFECT4buildings project is implemented with the support from the EU funding Programme Interreg Baltic Sea Region (European Regional Development Fund) and Norwegian national funding. The aim of the project is to improve the capacity of public building managers in the Baltic Sea Region by providing them a comprehensive decision-making support toolbox with a set of financial instruments to unlock the investments and lower the risks of implementing energy efficiency measures in buildings owned by public stakeholders. More information: http://www.effect4buildings.se/

ALTERNATIVE – NON-PUBLIC SOURCES AND MECHANISMS FOR FINANCING INVESTMENT PROJECTS

Growing cost of energy is a real issue for territorial self-government entities or for public institutions. The cost of energy consists of fees for heating, air conditioning or other utilities. Current fees usually consume all of the budget appropriations that otherwise could be allocated to investments that reduce energy consumption in buildings. As a result, in most cases, the necessary modernization projects are postponed.

It needs to be emphasised that the problem escalates over time, as managers of real estate pay more and more for energy which is in most cases used ineffectively. Due to most economic circumstances, oftentimes financial aid from external sources is the only solution.

The organisational and financial solutions applied are universal in nature, and may be implemented in each of the countries from the Baltic Sea Region. Therefore, the solutions presented are universal in nature, and may be implemented in each of the countries that are partners to the present project.

One of the solutions that are now being applied is a cooperation between the public sector and an external entity within the ESCO formula.

ESCO, i.e. Energy Service Company, means an external commercial entity offering energy services. Entities of the type invest their finances by implementing Energy efficient solutions at their clients' (public sector entities), and performs any necessary works in the structures concerned. In practice therefore, they perform execution contracts and comprehensive services, while at the same time giving entities from the public sector guarantees for savings. Thanks to the solutions that are so implemented, public sector entities make savings and as a result can repay the cost of the investment concerned. Upon a complete "repayment" of the cost of the project, the savings remain on the accounts of theses public sector entities.

The two most important contracting models under ESCO pertain to the improvement of energy performance (Energy Performance Contracting – EPC), and guaranteed energy deliveries (Energy Delivery Contracting – EDC).

EPC (Energy Performance Contracting)

These are contracts between beneficiaries (public sector entities) and Energy Service Companies (ESCO). They guarantee that investments are repaid according to a particular schedule determined in the contract and depending on the energy performance improvement obtained (as guaranteed by the ESCO concerned). The full definition of EPC is contained in art. 3 of Directive 2006/32/EC on energy end-use efficiency and energy services.

Services offered by ESCOs differ in the ways they are financed and in the ways risk is shared between ESCOs and their clients (public sector entities), as well as in the ways profit from implemented investments is shared. There are four basic types of EPC:

- Contracts where an ESCO offers financing while at the same time ensuring its client's (public sector entity) savings (and therefore taking almost total risk involved in the investment concerned).
- Contracts where the client/owner (public sector entity) is responsible for financing, and the ESCO ensures its energy savings (i.e. the risk is shared between the parties to the contract).
- Contracts that provide for a total assignment of the value of savings by way of reduced costs of energy to ESCO, until the total investment is repaid.
- Contracts for managing Energy consumption, subject to which ESCOs receive payment for providing energy services.

EDC (Energy Delivery Contracting)

Guaranteed energy delivery contracts are the second most popular type of contracts offered by ESCOs. They define the operating conditions, the terms for building or modernising sources of energy (heating and electrical power) at the contractor's own risk (most often these are ESCOs), based on long-term contracts. They are based on an assumption that optimised energy consumption will in the long run bring significant economic and environmental gains. The items implemented by the contractor (most often an ESCO) include financing, planning, and building or taking over a source of energy, as well as operational management (in particular maintenance and operation), purchasing fuel and selling energy. Remuneration for these services includes mainly payments for any energy supplied.

Using the ESCO formula means in practice external financing of investments. This implies an additional cost of raising funds, i.e. interest on any capital borrowed. However, most examples of projects implemented under the ESCO formula show savings of up to a dozen or so per cent as compared with the cost of investment form an entity's own resources.

This situation is mainly affected by an expressly greater effectiveness of managing energy saving projects by companies that operate under the ESCO formula, which results from their professional knowledge of the market, technologies, innovations, and from their comprehensive approach to the accumulated final effect. In addition, the EPC as contracting that involves the "success fee" element, encourages companies that are private partners to maximise their effectiveness at each stage of investment.

In addition to the direct effects of implementing investments in improved energy efficiency performance (e.g. for thermal insulation upgrading the effect involves reduced operating cost of buildings, lower rate of breakdowns of their internal systems, etc.), consistent implementation of then local energy policy should bring results in the form of:

- achieving Energy self-sufficiency in buildings;
- reduced fuel consumption;
- greater use of renewable sources of energy;
- reduced environmental pollution due to energy generation and distribution;
- ensuring better quality and lower price of services provided to citizens and enterprises operating within the municipality/commune;
- using waste to generate energy.

The need to seek energy savings in the public sector is as important as it is in private enterprises. Energy savings are more and more often sought by local governments and non-governmental organisations operating in the public interest that are additionally obliged subject to national action plans in respect of energy performance in the EU Member States. Their objective is to maintain a zero energy growth, i.e. to develop their economies without increasing their demand for primary energy.

This is surely facilitated by the decentralization of energy generation and distribution. This permits planning the process for optimised Energy consumption, and controlling it at municipal or communal levels. Therefore, local authorities gain independence from big energy producers and their own decision-making independence on one hand, yet on the other they become responsible for their investment decisions. The planned energy savings referred to in national action plans will in near future involve subjecting budget entities to detailed examinations and analyses. The measures will be supported by external experts, including ESCOs.

Services provided under the ESCO formula are also possible in the **public-private partnership** model. Public entities – e.g. hospitals, road administrators or municipalities – do not have to secure monies needed for investor's remuneration in the budget in advance. Private partners are usually wholly responsible for financing the process. They also draw up project documentation, perform construction and overhauling work, deal with supplying devices or with energy management. In exchange, they participate in the distribution of gains on any measures that have been implemented. The term of return on investment depends on individual arrangements between the parties concerned.

Cooperation is also possible where clients (public sector entities) have independently obtained funding for their investments (e.g. in the form of public aid involving various subsidies or grants). In such cases ESCOs only guarantee the relevant energy- and economy-related result[1].

Below is the schematic overview of actions to be take in the PPP formula.

[1] www.escowpolsce.pl

Public partners select structures where EE measures are to be implemented, and assess – with the help of specialized advisors (possibly ESCOs) – the potential energy savings in the said structures. At this stage partners agree upon:

- the procedures for collecting historic data in respect of energy consumption which are the basis for calculating base demand
- investment feasibility assessments in terms of guaranteed savings
- data analysis for the development of energy consumption schemes, and for prognosing potential areas for savings.

The process of project development pertains to the stage before the start of the tendering procedure or of the procurement procedure. Public partners must define all the parameters of the project in question, estimate costs and benefits of implementing various options that are available, and prove that the PPP option is the most advantageous option from among other solutions. Making a decision concerning a project financing option is important too – whether the project will be financed by the public or private partner, or whether the financing will be shared.

Using the PPP formula based on energy efficiency performance in public buildings limits the methods for procurement to:

- pre-selection contracts – a tendering method where a pre-selection is made of one or more ESCOs based on their general qualifications. This permits holding direct negotiations with one of the selected partners.
- choices based on quality and cost – tenderers present short proposals and provide additional information that is then assessed in accordance with pre-selection criteria for the particular project. Tenderers who meet the criteria are then asked to make their specific bids.

In addition to selecting the type procurement process, public partners are to define the procedures for assessment, negotiation, and procurement.

The selection of a private partner consists of several stages – a pre-selection of tenderers, making specific bids, and opening negotiations with the private partners who have been given the highest assessment scores.

- The pre-selection stage is aimed at verifying the capacities and resources of tenderers in respect of their undertaking of the work concerned. The assessment criteria should confirm their experience in respect of similar or greater projects, their market stability, and their capacity to secure project financing.
- Detailed technical offers that companies are invited to make at the second stage must conform to the detailed specifications of purchase conditions. Knowing the results of

the feasibility study, tenderers make their own pre-assessments of energy savings which confirm all the savings, together with the relevant calculations and methodologies.

- Bid assessment takes account of the amount of investment, the total energy and cost savings, the part of savings that is to be allocated to the ordering entity, the period and durability of devices, and the financing model. The ESCO selected should offer its public partner the best value for money.

The above study has been developed on the basis of the “Guidelines for the Energy Efficiency Performance in Public Buildings" developed by the Ministry of Economy.

Public entities have tried to apply the PPP formula in a wide range in Poland, practically in all spheres of general interest services. In the period from 2009 to the end of June 2019, PPP proceedings were initiated in 15 sectors, at three leading sectors (sport and tourism 144, transport infrastructure 84 and efficiency Energetic 52) constituted about half of all proceedings (280 procedures in total). Municipalities are by far the most active public entities operating in the PPP sphere. The activity of units is also a confirmation of the dominance of local governments on the Polish PPP market poviats and voivodships as well as entities related to local governments, such as companies municipal or budgetary units. Private partner selection procedures initiated they were most often by urban communes (30%), rural communes (17%) and rural-urban communes (16%). From 2009 to the end of the second quarter of 2019, 557 PPP proceedings were initiated and entered the implementation phase 135 contracts in the PPP formula. As at the end of the second quarter of 2019, most projects planned to be implemented in the sport and tourism sector (30), transport infrastructure (23) and energy efficiency.

Interreg Baltic Sea Region

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