







ROUNDTABLE ON FINANCING ENERGY EFFICIENCY IN POLAND



15 May 2018

Warsaw, Poland

The event organised by the European Commission and <u>Executive Agency for Small and Medium-sized</u> <u>Enterprises (EASME)</u> in partnership with the Ministry of Energy of Poland, the National Fund for Environmental Protection and Water Management (NFOSiGW) and the UN Environment Programme Finance Initiative (UNEP FI) in the frame of the Sustainable Energy Investment Forums funded by the Horizon 2020 programme of the European Union.

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EXECUTIVE SUMMARY

The European Commission, in partnership with the Ministry of Energy of Poland, the National Fund for Environmental Protection and Water Management (NFOŚiGW), and the UN Environment Programme Finance Initiative (UNEP FI) organized a Roundtable in Warsaw on 15th May 2018 on financing energy efficiency with an emphasis on the use and development of financial instruments. The event was attended by 73 experts from both Poland and abroad who are engaged in financing energy efficiency in the sector of national governments, the financial sector, project development, the renovation supply chain and local and regional partners.

The objective of the National Roundtable is to continue dialogue between key Polish stakeholders on how to improve access to finance for energy efficiency investments, and to identify common objectives and potential improvements to be made in the current policy framework and business practices.

In the summary of the event, Mr. Zbigniew Kamieński, Advisor in the Team of Advisors of the National Fund for Environmental Protection and Water Management, said: "*It is particularly important that we met in a very competent group with the participation of representatives of these key environments that are necessary for proper work in this sector. I am glad about the activity of the financial sector, which is a good sign for better and smarter use of public funds as leverage for the use of private funds.* " He also emphasized the importance of the conference that took place at 30th of November 2017 and the recommendations arising from the Roundtable, which can be transformed into concrete actions. In addition, he expressed the need to continue dialogue within the SEI Forums initiative, in form and subject to be determined.

The Roundtable included:

- 1. Introductory plenary: Opening and introduction to the National Roundtable
- 2. Four parallel topic sessions:
 - Development of the EPC/ESCO market
 - Improvement of EE finance in the Industry/SME sector
 - Promotion of One-Stop-Shops concept
 - Development of financing instruments of EE in single family buildings
- 3. Closing plenary & Concluding remarks

During the introductory plenary session - the opening of the meeting was made by Mr. Kazimierz Kujda, President of the Management Board of the National Fund for Environmental Protection and Water Management, presenting the role of the Fund in financing the modernization of infrastructure and improving energy efficiency in Poland. Ms. Margot Pinault from DG Energy in the European Commission followed by recalling the objectives of the European policy of financing energy efficiency and presented the scale and means of support provided by the European Union. Next, Mr. Marcin Janiak, Deputy Director of the Department of European Funds in the Ministry of Energy, presented the allocation of European Union funds and national resources allocated for improvement of energy efficiency in various sectors of the Polish Bank Association, discussed the objectives and foundations of green mortgage business by defining 12 guidelines for lenders financing improvements in energy efficiency in buildings.

Topic sessions allowed to draw the following conclusions:

Development of the EPC/ESCO market

Due to the poor dissemination of this investment implementation model, it is worth to:

- support a consultancy system for municipalities, enterprises and banks in the scope of developing such projects,
- create a set of standard documents (contract, terms of reference) at least for the local government sector,
- create target funds (guarantee and forfeiting) that will help ESCO companies operate on the market

Improvement of EE finance in the Industry/SME sector

Based on experience from the functioning of various support instruments, there is a need to:

- analyse the objective needs of individual sectors
- improve already implemented mechanisms such as mandatory energy audits (not only in large enterprises) and the system of "white certificates"
- support the field of technical assistance for entrepreneurs in the identification and selection of the manner of implementing projects that increase energy efficiency

Promotion of One-Stop-Shops concept

Taking into account foreign and Polish experience, it is worth to:

- continue public support for the advisory system, which should integrate different roles of NFOŚiGW advisors with energy auditors, business environment institutions and entrepreneurs
- implement a pilot project at the level of a commune or voivodship covering all investment stakeholders in improving energy efficiency

• consider whether this model of investment implementation is convenient for the program of thermal modernization of single-family houses in the energy poverty sector

Development of financing instruments of energy efficiency in single family buildings With regards to the ongoing legislation changes in Polish focused at reducing smog, it is important to:

- coordinate the work of various public entities on the creation of support systems for the energy poverty sector and for other recipients
- create a support system with long-lasting and uniform operation on a national scale, taking into account different sources of financing
- implement support programs for the energy poverty sector and for other recipients parallely.

BACKGROUND TO THE EVENT

As part of the "Smart Finance for Smart Buildings" initiative, the European Commission is organising a series of "Sustainable Energy Investment Forums" to enhance the capacity of and co-operation between public and private stakeholders to develop large-scale investment programmes and financing schemes. The SEI Forums will consist of more than 30 events in up to 15 Member States in 2016-2019; information on past and upcoming events can be found on the SEI Forums <u>webpage</u>.

An initial regional conference on Energy Efficiency Finance in Poland, Czech Republic, Slovakia and Lithuania, took place in Warsaw on 30 November 2017. This event gathered about 130 participants working on energy efficiency finance from the financial sector, national Governments and energy efficiency sector incl. project developers and local and regional agencies. The presentations and proceedings from that event can be found <u>here</u>.

A series of issues highlighted during the conference and ideas for solving them prompted the main organizers to continue the discussion in the form of a Roundtable with the participation of representatives of the public, non-governmental and private sectors. The event was organised by EASME under the European Commission, supported by its contractor EC Network and the National Energy Conservation Agency – NAPE, in partnership with the Ministry of Energy of Poland, the National Fund for Environmental Protection and Water Management (NFOŚiGW). This Roundtable took place on May 15, 2018 in Warsaw, and its participants jointly developed a number of recommendations for improving the availability of financial instruments aimed at intensifying the liberation of energy efficiency potential in various sectors of the Polish economy. These recommendations are presented in the further part of this report.

A joint recommendation, articulated by the participants of all sessions, is the need to strengthen the energy efficiency component in the country energy policies, which is a component of various sectoral policies. It is important that the law created to support the implementation of energy efficiency improvement projects is consistent with the energy policy, understandable for all market participants, sustainable and enforced.

Presentations that were discussed during the meeting are available here

INTRODUCTORY PLENARY

Moderator: Mr Zbigniew Kamieński, NFOŚiGW

WELCOME SPEECHES

Mr Kazimierz Kujda, President of the Board, NFOŚiGW

The National Fund for Environmental Protection and Water Management (NFOŚiGW) is the main institution financing investments in environmental protection infrastructure in Poland, where around 45-50% are implemented using EU funds. The Fund implemented 31 000 projects of various sizes, including 4 000 projects related to water and sewage management, where1600 are sewage treatment plants. The National Fund is the Implementing Authority of EU Operational Program Infrastructure and Environment in the field of water and sewage management, air protection, waste management, energy efficiency and renewable energy sources. Thanks to the projects implemented by NFOŚiGW, the demand for energy decreased by 3.1 TWh / year and CO₂ emissions were reduced by 14.5 million tonnes / year.

NFOŚiGW is also running energy consultancy project covering all voivodships.

New ten-year financing program will be launched for the modernization of single-family houses and it will aim to reduce pollutant emissions (smog). Programme will be launched in near future. The most likely source of financing for the program is the environmental tax, which will be imposed on fuels used in transport since 2019. The launch of the program is also motivated by the need to stimulate the local economy in Poland. An important financial aspect may also be tax incentives for low-income households that will complement this new financial instrument.

Mr Marcin Janiak, Deputy Director of the Department of European Funds, Ministry of Energy

Marcin Janiak welcomed participants on behalf of the Ministry of Energy and expressed the hope that the Roundtable will provide new ideas and perspectives in terms of shaping the financing measures to increase energy efficiency in Poland.

SETTING THE SCENE TO BRIDGE THE ENERGY EFFICIENCY AND FINANCING SECTOR

The EU perspective

Ms Margot Pinault, European Commission, DG Energy Presentation available here.

The aim of the presentation was to show the policy of financing energy efficiency at the European level. To meet the COP21 agreement in Paris, a new legal framework is needed that will also be an excellent basis for modernizing the economy towards a more environment-friendly use of resources, including the transition from a centralized to a decentralized energy sector.

The Intelligent Financing for Intelligent Buildings initiative is part of the Clean Energy Package for all Europeans, where buildings play a key role. It covers three pillars: the first is to ensure more efficient use of public funds, for example by providing instruments that offer tailored guarantees. The second is to introduce aggregation and help in the development of projects, including grants for technical support (ELENA, H2O2O) and projects in the field of "one-stop-shop-service." The third pillar, concerns the reduction of risk related to financing energy efficiency, developed in cooperation with the Financial Institutions Group for Energy Efficiency (EEFIG). Those actions also include launching of Platform for Reduction in Energy Efficiency (DEEP), which is a large database containing real data on the quality of projects related to energy efficiency <u>https://deep.eefig.eu/</u>, as well as a set of tools to assess the investment risk in energy efficiency <u>https://valueandrisk.eefig.eu/</u>.

Margot Pinault also reviewed the support from the EU structural funds for a low-carbon economy in Poland (Objective no. 4). The current program is a great incentive for energy efficiency, with allocation of: EUR 1.1 billion for public buildings, EUR 509 million for residential buildings and EUR 162 million for the SME sector. She presented the possibilities to submit projects in the field of energy efficiency under the EU's Horizon 2020 program, including the upcoming call for applications in the competition "Integrated home renovation services" (LC-SC3-EE-2-2018-2019) and "Aggregation – Project Development Assistance"(LC-SC3-EE-11-2018-2019-2020).

Status of utilisation of public funds for energy efficiency in Poland

Mr Marcin Janiak, Ministerstwo Energii

Presentation available <u>here</u>.

The presentation aimed to provide an overview of available public funds supporting schemes to support improvement of energy efficiency in Poland, including EU and other international funding programmes, NFOŚiGW programmes and funds from the state-owned Bank Gospodarstwa Krajowego (The Polish Development Bank). The Ministry of Energy is aware that innovative financial instruments are appearing more often, which means that instruments such as recoverable funds will become the norm.

The total amount of currently available public funds is estimated to around EUR 4.5 billion, of which EU funds have the largest share. The Operational Program Infrastructure and Environment (POIIŚ) for the years 2014-2020 provides EUR 1.396 million for activities in the field of energy efficiency. Support is provided mainly in the form of subsidies, but there are also recoverable instruments in the form of loans with subsidies covering a wide range of financing energy efficiency in public and residential buildings.

EU Regional Operational Programs provide additional support for energy efficiency measures of EUR 1.888 million. The programmes vary in different voivodships in Poland, but have a very large potential.

NFOŚiGW implements the LEMUR priority program, which supports energy saving in public utility buildings, the EWE program supporting energy efficiency in enterprises and SOKÓŁ program supporting the intelligent and energy-efficient modernization of enterprises. Bank Gospodarstwa Krajowego is another national entity supporting energy efficiency in buildings, mainly in the form of thermo-modernization bonuses.

Perspectives seen from the financing sector

Mr Bolesław Meluch, Polish Bank Association

Presentation available <u>here</u>.

The starting point of the presentation was the Action Plan for Rational Energy Use - the EeMAP initiative. Its overarching goal is to serve a pan-European banking mechanism aimed at stimulate energy efficiency in households with the help of financial incentives connected with a mortgage loan. The initiative is independent of public funds or tax incentives, but complements them.

The Polish banking system is running constant consultations with the European Commission. New questions and challenges appear all the time, for example the problem of: standardization versus flexibility - whether to concentrate on new or existing buildings? Is it better to choose gradual or deep modernization?

A more accurate assessment of the risks associated with green mortgages should reduce the costs incurred by the banks.

At the same time, public funding is not sufficient, therefore private sector funds must be mobilized to fully exploit the energy efficiency potential of buildings. Energy efficiency improvement projects should be generated through a single platform encouraging energy service companies (ESCOs) to invest, which is why an element of financing in such a comprehensive model is necessary. This means using financial instruments supplemented by public funds. For example, Bank Gospodarstwa Krajowego launched a new regional financial instrument supported by EU funds in Wielkopolska region to promote the deep modernization of multi-family houses.

Andrzej Rajkiewicz from National Energy Conservation Agency – NAPE, made a short introduction to the work of four topic groups and suggested that the discussions should end with detailed recommendations enabling the dialogue to continue.

TOPIC GROUP 1 ON DEVELOPMENT OF THE EPC/ESCO MARKET

Moderator: Bartosz Marciniak, PROMAR Sp. z o.o. Rapporteur: Marcin Jamiołkowski, NFOŚiGW

Purpose

The session on development of the EPC/ESCO market at the public SEI Forums conference on Financing Energy Efficiency in Warsaw on 30 November 2017 showed a considerable interest in the current and potential future role of energy service companies, but also differences in terms of what is meant by an ESCO and the way in which they operate. It revealed prosperous good practice of Energy Performance Contracting, but also that the concept requires more support to release its full energy saving potential in Polish economy.

The aim of the session was to elaborate recommendations for elimination of barriers for development of EPC/ESCO market and for creation of support instruments for projects developed by relevant entities. Today, the EPC concept is not frequently applied and there is a considerable unreleased potential.

Speakers

 Robert Pernetta, Financial Instruments Advisory, European Investment Bank Group -Eurostat - EIB practitioner's guide for statistical treatment of EPC

Presentation available *here*

The presentation was a reminder that Energy Performance Contracts might be treated under certain conditions as an out of budgetary liabilities (off balance) for public finance units. This was regulated in the Eurostat guidelines from September 2017. On this basis, Eurostat and the European Investment Bank have developed a guidebook for public sector which will help with facilitation of preparation and negotiation of contracts with contractors. The speaker discussed the contents of this guide. The full content of the guide is available <u>here</u>

 Marcel Lauko, Energy Center Bratysława - Energy Centre Bratislava - EPC market development in Slovakia

Presentation available <u>here</u>

Mr. Marcel Lauko presented the Slovak experience from the development of the EPC market. He discussed the barriers and difficulties, which were gradually minimized thanks

to the support of the Ministry of Economy and the Ministry of Finance of Slovakia and the European Union, which enabled the implementation of promotional projects.

• Marcin Janiak, Vice-Director, European Funds Department, the Polish Ministry of Energy - Barriers to support ESCO development in Poland *Presentation available <u>here</u>*

Mr. Marcin Janiak discussed barriers to the development of EPC market in Poland. He sees them mainly in the absence of a standard contract template, uncertainties related to the use of state aid and the treatment of such contracts in Poland as a budgetary obligation for municipalities.

Key Questions

- 1. How to overcome essential barriers for EPC project development, notably exploring the new EPC guideline, State Aid regulations and international experience in this regard ?
- 2. How to build the positive image for public investors as well as public-private partnerships, to gain momentum for EPC market development
- 3. What are expectations of ESCO companies and investors in terms of financing instruments and reduction of legal & fiscal barriers?
- 4. What is the role of commercial banks and other financial institutions in development of EPC/ESCO market and in implementation of individual project?

Proposed actions

- Legally clarification the definition of an energy performance contract for which the English abbreviation "EPC" is used. It appears in various contexts in different EU documents. The EPC may refer to both "Energy Performance Contracting" (energy performance contract) and "Energy Performance Certificate" (energy performance certificate), or a contract mode under the FIDIC system turnkey orders.
- It is necessary to develop and disseminate standard document templates such as contract for energy effect, specification of essential terms of public procurement, guidelines for conducting tenders.
- The guidelines on the fiscal approach to EPC contracts prepared by the EIB and Eurostat are required to be popularized, and the conclusions from the abovementioned document should be taken in to consideration by the Ministry of Finance.
- It is necessary to launch new financial support instruments dedicated to the

uniqueness of projects implemented in the EPC formula:

- for hybrid financing,
- \circ for guarantee and forfaiting funds supporting the liquidity of ESCO companies,
- a guarantee instrument from EU funds for energy efficiency available under the 2014-2020 perspective or planned 2021-2027 perspective, linked to technical assistance for both parties of the contracts.
- It is worth creating within the government structures a Competence Centre dedicated to ESCO / EPC issues, one of the tasks should be to develop and disseminate a catalogue of good practices and broad educational activities in the field of specific projects implemented in the EPC formula and ESCO business rules, especially at regional and local levels.
- Commercial banks should be more actively involved in financing projects implemented under the EPC formula for a more efficient distribution of funds and deeper penetration of the market.

TOPIC GROUP 2 ON IMPROVEMENT OF ENERGY EFFICIENCY FINANCE IN THE INDUSTRY/SME SECTOR

Moderator: Zygmunt Parczewski – independent expert Rapporteur: Szymon Liszka – FEWE/SAPE

Purpose

The industry/SME session under the public SEI Forums conference on Financing Energy Efficiency in Warsaw on 30 November 2017 showed some of the existing initiatives in Poland, incl. NFOŚiGW program for industry, "white certificates" scheme, the PolSEFF Program and an effort to make energy audits obligations more practical in use.

The purpose of this Roundtable session was to develop actions for financing of energy efficiency measures in Polish industry, in particular in SME sector. The key intention of the session was to identify effective methods to raise awareness, increase motivation and incentives to take actions to improve energy efficiency in the sector

Speakers

 Zbigniew Kamieński, Adviser, Team of Advisers in the National Fund for Environmental Protection and Water Management - Energy efficiency in Polish industry - challenges for Polish industry *Presentation available <u>here</u>*

Mr. Zbigniew Kamieński discussed the challenges for the Polish industry in the field of energy efficiency improvement. He pointed out the main barriers, sources of public financing and presented several recommendations for actions aiming to activate enterprises in the implementation of national targets: information and promotion campaigns, innovative business models and financial instruments.

• Nicoletta Favaretto, Eurochambres - Project STEEP *Presentation available <u>here</u>*

Presentation of Mrs. Nicoletta Favaretto was devoted to the results of the EU project IEE STEEP on improving energy efficiency in small and medium-sized enterprises. The project was carried out with 36 chambers of industry from all over Europe. Guides and tools were developed to prepare and carry out activities improving energy efficiency in SMEs, which are available on the project website <u>http://www.steeep.eu/publications</u>

 Adam Hirny, BGŻ BNP Paribas - Prospects on the further use of the PolSEFF program, including barriers and lessons learned *Presentation available <u>here</u>*

Mr. Adam Hirny presented his position regarding the continuation of energy efficiency financing programs in SMEs in Poland using good experience from the PolSEFF project http://www.polseff.org and in particular the LEME instrument (lists of pre-defined energy-saving technologies).

Key questions

- 1. What are some of the key lessons learnt from existing industry/SME support programmes, what has worked well? What specific types of support might help to overcome initial barriers to engagement and increase interest?
- 2. Are there key sectors or industries where a more focused programme could yield some early wins? Are there trade associations or other intermediaries that should be engaged to increase outreach opportunities?
- 3. How to motivate the companies to actually implement the solutions identified in the energy audits?

- 4. What is the role of commercial banks and other financial institutions in EE financing in the industry/SME sector in Poland
- 5. What should be the role of State bodies in activities to improve energy efficiency? (law, supervision of energy markets, supervision of materials and equipment market, institutionalization to coordinate activities)?

Proposed actions

- Support programs need to be better used by beneficiaries and should have the following features:
 - simplicity, durability, adaptability and understand ability of the support mechanism,
 - minimal bureaucracy (reduction of transaction costs), trust in the rationality and integrity of entrepreneurs,
 - clear criteria and energy efficiency standards (e.g. based on LEME lists: devices, and materials reported by manufacturers / importers),
 - free technical assistance assistance in preparing an energy audit, application for subsidy and settlement of support.
- Do not indicate industries, but rather increase efforts to reach a wider audience:
 - it is worth carrying out a statistical and business analysis and assessment indicating the most energy-intensive industries of SMEs, e.g. plastics industry, processing of metals and alloys, food industry (milk, brewing, potato and other), wood industry; supplementing this list on the basis of statistical data analysis and / or assessment carried out by Chambers, Industry Associations
 - the main intermediaries in reaching companies with the offer of support that should be included in the process are:
 - sellers of fuels and network energy suppliers,
 - industry associations and / or chambers of commerce,
 - energy agencies and associations of auditors, energy agencies and consulting companies
- There is a need to develop a systemic way of cooperation with banks in the distribution of public funds, commercialization of support mechanisms, reducing the risk of investing in areas important for the energy and environmental policies of the country:
 - banks are interested in cooperation with facilitators (technique and technology specialists, and energy auditors), who could reduce the risk of investment through their services, forward detailed information to investors, monitor and verify ongoing investments,

- commercial banks should be more active in reaching SMEs and in lobbying for the establishment of public guarantee funds, including the implementation of EU law provisions into Polish law (the National Fund for Efficiency is a good example here).
- National state bodies are expected to:
 - implement flexible financing instruments combined in part from direct subsidies (10-15% - depending on the scale of the industrial company / SME), and entirely from free or partly refundable technical and energy auditing assistance,
 - create a Public Fund (an European or Polish bank financing activities with high load of social and environmental benefits), that effectively reinsure commercial banks and other financial entities in terms of risk related to improvement of energy efficiency financing,
 - modify the system of "white certificates" in the direction of facilitating the use of them by SMEs.
- Much better and wider fulfilment of information and educational functions (through government agencies and non-governmental organizations) and awareness raising of the need to change approaches to resource management, including fuel and energy resources, and waste management (circular economy).
- It is worth promoting and disseminating good industrial practices and launching public research, development and implementation (pilot and demonstration projects), testing new technological, product and organizational solutions. Adoption of the state energy policy in the field of energy efficiency improvement:
 - to set targets for improving the energy efficiency of the economy, with a priority for "sixth fuel"; including in policy effective but not only declared mechanisms for its achievement and monitoring, e.g. support for the development of cogeneration systems based on different fuel mix, including RES.
- Establishment of a central unit aimed to initiate, coordinate and monitor activities in the field of energy efficiency improvement in enterprises, supporting entrepreneurs and conducting targeted education and training campaigns. Changes in the law regarding mandatory energy audit of enterprises (provisions of the Energy Efficiency Act), in particular:
 - setting the energy audit standard (suited to the company profile, energy consumption and share of energy costs in the total costs of the enterprise) and its verification,
 - expanding the scope of information that should be obtained from audits for the needs of stakeholders, including state institutions in the identification of the

potential for improving energy efficiency and creating effective support mechanisms,

- to create a database system that collects, processes and provides information from energy audits,
- obligatory energy audit of energy-high-consuming enterprises from the SME group (with an appropriate support system).
- Amendments of the Act on energy efficiency, in scope of energy efficiency certification system convertible into transferable white certificates (SEE / BC mechanism), in particular:
 - $\circ~$ lowering the entry boundary to the system, e.g. from 10 t_{oe} / a to 1 MWh / a (along with the change of the account unit),
 - adaptation for needs of small energy consumers a simplified path (grouping of effects, simplified procedures of applying and accounting),
 - credibility of the effects of undertaken actions increasing the role of measurements and monitoring in the long-term (including for the assessment of activities in the field of "energy management").
- Design and implementation of the energy market development system (based on European regulations - BAT, Ecodesign, Labeling and the best global designs, e.g. American Office Industrial Technologies), including:
 - development of energy consulting,
 - support for the development of new technologies,
 - commercialization support,
 - technologies entering the market,
 - o promotion of verified best practices and technologies,
 - supervision of the market of energy-using devices in order to eliminate products, ineffective and to provide access to reliable information about products and conditions of their use.

TOPIC GROUP 3 ON PROMOTION OF ONE-STOP-SHOPS CONCEPT

Moderator: Zbigniew Michniowski, The Polish Network Energy Cities Rapporteur: Andrzej Rajkiewicz the National Energy Conservation Agency - NAPE/the Energy Conservation Foundation- FPE

Purpose

During the regional conference of the Forum for Sustainable Energy Investment held in Warsaw on November 30, 2017, the Concept of Comprehensive Investor Service (KOI),

known in Western Europe as "One-Stop-Shop Service" was mentioned. Its aim is to improve the management of the activities performed by the facility users, aimed at improving energy efficiency. This allows them to work with one entity responsible for the complete modernization of the facility, starting from the assessment of the existing situation, identifying user requirements, through the use of modular modernization kits, their assembly and installation, ending with their financing and subsequent maintenance.

The aim of this Roundtable session was to develop recommendations for the promotion and creation of KOI structures in Poland, based on good foreign and Polish practices of comprehensive assistance to investors in the public and private sectors.

Speakers

 Raphaël Claustre, Mlei Postif - Energies POSIT'IF One-stop-shop for Low energy refurbishment of condominiums in the Île-de-France Region. French example of one-stop-shops for private home renovation *Presentation available here*

Mr Raphaël Claustre discussed the way in which energy efficiency investments are organized in the condominium buildings in the Île-de-France region. It integrates 3 innovative support instruments: comprehensive investor service, targeted financial solutions and participation of the third-party financing as an intermediary using public funds and financial instruments, which also implements an investment that pays off from energy cost savings. The key to the success of this scheme is good communication between residents and scheme representatives.

• Anna Trudzik, NFOŚiGW - The structure of the advisory service rendered by National Fund of Environmental Protection and Water Management *Presentation available <u>here</u>*

The speech of Anna Trudzik was devoted to discussing the goals, structure and current results of this project. The objectives of the project are: to improve public awareness in the development of low-emission economy, supporting municipalities in the preparation and implementation of plans aimed at reducing low carbon emissions, and in helping each type of investor in the preparation and implementation of investments in energy efficiency and RES. It is implemented in all regions of Poland through the intermediation of over 70 trained advisors located mainly in voivodship funds for environmental protection and

water management. The work of advisers consists of organizing educational and training activities and providing consultations to interested parties.

Patrick Boucneau, ESCO Limburg - Cooperation for refurbishment of municipal buildings in Limburg (B)

Presentation available here

Mr. Patrick Boucneau discussed a joint project of the province of Limburg, the company Infrax (regional operator of the power grid) and Dubolimburg - a regional consultancy institute specializing in sustainable housing. Infrax is the operator of the Energy Performance Contract. The service includes: telemetry and monitoring of energy consumption, identification and development of feasibility studies for modernization investments using dynamic simulations and measurement campaigns, project implementation and monitoring of effects.

Key questions

- 1. What is the main learning of the presented international examples in terms of introducing the one-stop-shop concept in Poland, incl. the overall organisation and use of business models
- 2. What should be key components of a one-stop-shop service that is best suited to meet the needs of the EE market in Poland?
- 3. Which organisations and entities could implement such facilities and what would be the role of each organisation in such a facility?
- 4. What policy and legislative changes are needed to make possible creation/establishment of a one-stop-shop services?

Proposed actions

Following the good practices presented below and acting towards creation of Polish models of one-stop-shop-service.

- Regional model for Energy POSIT'IF:
 - the role of the public party in initiating this project deserves recognition, as well as the scale of the undertaking, setting ambitious goals based on a thorough analysis of the investment needs of housing communities in the entire region,

- involvement of the third party was preceded by the integration of available public funds (including fiscal ones) into one comprehensive financial instrument,
- it allowed to obtain a large-scale (EUR 400 million) preferential financing from the European Investment Bank
- the scope of the service provided to housing communities (from audit, through provision of financing, organization and supervision of thermo-modernization investment to financial settlement) does not differ from the model developed in Poland by property managers in cooperation with energy auditors, using funds under the Act on supporting thermo-modernization and repairs and financial instruments with EU subsidies available under OPI & E, ROP or WFOŚiGW (Voivodship Fund for Environmental Protection and Water Management)
- ESCOLIMBURG2020:
 - It is innovative to entrust the role of the energy efficiency contract operator to the Infrax power company. This significantly facilitates the settlement between the parties of the contract and allows better monitoring of results.
- Consulting project NFOŚiGW (National Fund for Environmental Protection and Water Management)
 - constitutes a supplementary element for the existing commercial energy consultancy related to the system of supporting thermo-modernization undertakings and support programs for entrepreneurs,
 - has a chance to develop a range of services for the initiation of regional and local schemes for Comprehensive Investor Services, promotion of contracts for energy efficiency.
- The KOI (Comprehensive Investor Service) service provided to real estate managers and administrators in Poland for owners of multi-family houses should be supplemented with an element of monitoring of the energy and economic effect in order to identify additional possibilities of reducing the consumption of heat and electricity. In addition to activities on the heat consumption side: it is worth considering the consumption of electricity in these buildings and the greater use of renewable energy sources, including photovoltaics.
- In the case of public buildings, the possibility of creating programs of a scale larger than the municipality should be analysed in order to obtain more favourable financing from Polish and European financial institutions. For such programs, it is possible to join partly free technical assistance to facilitate their preparation (e.g. EU ELENA Initiative). It is possible to combine in investment packages buildings of

various purpose belonging to different owners. The scale effect may reduce the unit investment costs. The organization of such packages could be dealt with by public institutions at the regional level, using specialized companies and institutions.

- It seems that the KOI concept would be the most suitable for the implementation of the energy efficiency improvement program in single-family houses belonging to both low-income and higher-income families. Local government units together with public, private or mixed KOI entities should be coordinators of such activities based on the regulations of currently organized support for this type of buildings.
- The scope of KOI organization services should be adapted to the local needs and structure of the investment project
- Organization of KOI should have the following features and meet the requirements listed below:
 - Have proven competence of service for:
 - preparing and carrying out investments, obtaining external financing, settlement of investments and checking the effects of their implementation,
 - guaranteeing the energy effect assumed at the preparatory stage, both for simple as well as comprehensive investment projects.
 - Inspire confidence in investors, financing institutions and among contractors.
 - Be neutral (independent) towards service and goods suppliers used for implementation of the investment.
 - Have skills and experience in solving problems connected with investment processes.
 - Have financial and human resources to take responsibility for the implementation of the investment and to achieve the assumed effects in a sensible period after its completion / putting into use.
- The KOI service may be offered by:
 - Organizations or other entities, which took part in performing complex thermo-modernization of buildings, such as:
 - Administrators of public and non-public real estate
 - Energy agencies,
 - Professional energy auditors,
 - Business Support Institutions,
 - Energy Services Companies (ESCO)
 - Local governments
 - Each of these organizations could undertake investments in the form of KOI alone or in cooperation with other types of organizations.

- An important role in the development of the market for KOI can be played by Energy Advisors of the National Fund for Environmental Protection and Water Management in the action entitled "Investment support" as coordinators of larger-scale projects at the regional level and independent project verifiers. Their location at the Voivodship Funds for Environmental Protection and Water Management (WFOŚiGW) (institutions with own funds and also managing EU financial resources) would support better creation of energy efficiency improvement programs in the facilities of different owners: collective (condominiums and housing cooperatives), local governments, SMEs, at least in the scope of construction of financial engineering. The activity of Energy Advisors of NFOŚiGW should not compete with the work of energy auditors and other specialists involved in the detailed preparation and implementation of investments.
- Due to the need to standardize the subject and the procedure for providing support for thermo-modernization and renovation measures offered under the Thermomodernization and Renovation Fund (FTiR) and parallel support systems from EU funds, it is proposed to:
 - Introduce of provisions guaranteeing greater support under FTiR for multifamily buildings or their groups, located in areas inhabited by low-income population (rural settlements after former state-owned farms, etc.). This can be achieved by increasing the thermo-modernization premium, as this will improve the creditworthiness of the owners of these buildings. BGK (the state bank managing FTiR) data show that the market for comprehensive thermosmodernization has so far been concentrated in large urban centres and is already largely exhausted. Nevertheless, with the use of FTiR, thermosmodernization and refurbishments were carried out in only approx. 10% of multi-family residential buildings, which were built until 1985 in Poland. It is true that GUS data indicate that over 50% of buildings have been insulated. but it is not known whether insulation has been accompanied by deep modernization of heating systems or their regulations. These data mean that the rest of the buildings are not insulated and it is not known what the condition of heating installations in these buildings is. This condition justifies the continuation of the system's operation with the introduction of an appropriate correction of the thermos-modernization and renovation bonuses
 - in the next changes of FTiR operation, introduce an obligation to estimate the ecological effect of completed investments, their impact on the labour market in construction and its surroundings, and to improve thermal comfort, and

therefore health of users of facilities subject to thermo-modernization and renovation,

- coordination in terms of harmonizing the criteria and rules for granting financial support, offered by various institutions and programmes.
- Due to the easier shaping of financial instruments aimed at improving energy efficiency in buildings, it is postulated:
 - to introduce energy classes for buildings into the energy performance certification, because:
 - European financial institutions, and consequently, Polish companies develop products based on the so-called "Green mortgages", i.e. projects that result in a significant reduction in the demand for energy for buildings. They may than receive more favourable financing conditions,
 - The clearest and most commonly used method in Europe to document the degree of improvement in the energy efficiency of a building is to show the transition from a given energy class to a higher one. The financial offers are graded depending on the number of skipped classes.
 - It is worth to implement a pilot KOI project, which would include:
 - proposal of the goal and scope of the project,
 - organization of a meeting in a chosen region for stakeholders from organizations predestined to perform the KOI function:
 - Administrators of public and non-public real estate,
 - Energy agencies,
 - Professional energy auditors,
 - Business Support Institutions,
 - Energy Services Companies (ESCO).
 - Energy and fuel suppliers
 - Local governments
 - \circ to create a regional register of companies that meet the requirements for KOI
 - to improve the analysis of market needs of various types of investors in order to calibrate the service in various spatial dimensions, determining the project's objectives (energy and ecological),
 - determination of available state and European financing sources for the project,
 - information and promotion activities for potential KOI beneficiaries.

TOPIC GROUP 4 ON DEVELOPMENT OF FINANCING INSTRUMENTS OF EE IN SINGLE FAMILY BUILDINGS

Moderator: Mr Szymon Firląg, Warsaw University of Technology, Buildings Performance Institute Europe BPIE

Rapporteur: Mr Arkadiusz Węglarz, Polish National Energy Conservation Agency, KAPE/Association of Energy Auditors ZAE

Purpose

At the public SEI Forums conference on Financing Energy Efficiency in Warsaw on 30 November 2017, the World Bank presented the Catching-up Regions (CuR) Initiative. It was initiated by the European Commission in collaboration with the Polish Government and the World Bank to deliver practical solutions to developmental bottlenecks facing Polish regions. One of the components of the CuR focuses on designing financial instruments that are to encourage owners of single family buildings (SFBs) to enhance energy efficiency (EE) of their houses (replacing old boilers, retrofitting houses) while improving the air quality in Poland (reduction of smog, which is mainly caused by the low stack emission). The current pilot project includes two regions Małopolska and Silesia, which house 1.1 million SFBs (out of 5m SFBs in Poland). Both regions have adopted anti-smog resolutions that oblige SFB owners to replace old boilers with modern, low-emission ones, though they do not mandate total SFB retrofitting.

Speakers

 Grzegorz Wolszczak, World Bank - New financial instruments prepared within Polish Catching-Up regions initiative Presentation available here

Presentation of Mr. Grzegorz Wolszczak discusses, on the one hand, cost assumptions for the implementation of a pilot program for boiler replacement and thermo-modernization of single-family houses belonging to low-income families in the Małopolskie and Śląskie voivodships. On the other hand, he presents a market analysis for such modernizations in the homes of households with higher incomes in the whole country. The project presents two different financing schemes and the organizational structure necessary to run both programs

• Goetz von Thadden, European Investment Bank - The Lithuanian Leveraged Fund and Smart Finance for Smart Buildings

Presentation available here

Mr Goetz von Thadden presented a financial guarantee instrument aimed at reducing the requirements for securing the repayment of loans by members of condominiums, thus facilitating the mobilization of public and private funds for the program in the field of energy efficiency improvement.

• Andrzej Guła, Institute of Environmental Economics IEŚ, Polish Smog Alarm - How to support energy efficiency improvement in single-family buildings? *Presentation available <u>here</u>*

Mr. Andrzej Guła discussed on the one hand 4 pillars to be included in the common program for increasing energy efficiency in single-family buildings: regulations, supervision, support and education. On the other hand, he identified the main threats to its implementation: poor coordination, too slow changes in regulations and the in creation of efficient financial instruments as well as complicated procedures.

Key questions

- 1. How can owners of single family houses be convinced to engage in thermomodernisation and how can the willingness of householders to use the financing instruments for home renovation be improved?
- 2. Following the presentations and discussions, incl. findings of home owners' motivation, what could be the vision and more practical scope of an effective and large-scale financing instrument to harvest the potential for EE savings in the single family buildings?
- 3. Which legal and fiscal obstacles need to be overcome to introduce such large-scale financing instrument?
- 4. What will be the role of commercial banks interest in participation in financing of EE in single-family homes?
- 5. What is the division of responsibilities among all stakeholders to be participating in implementation of the program, incl. what role municipalities and other stakeholders could play in increasing awareness of and confidence in the process?

Proposed actions

- In order to convince owners of single-family houses to perform thermomodernization, one has to consider financial, regulatory, control and educational mechanisms such as
 - in regards to regulatory mechanisms, local government authorities should adopt anti-smog resolutions (at the local and regional level). At the national level, standards should be introduced for solid fuels (in terms of dust emissions, sulphur oxides, etc.) and standards for heating devices,
 - control mechanisms should be strengthened giving greater powers to city guards and the State Trade Inspection in the scope of fuel quality control and admissible sales classes of heating devices,
 - it is necessary to enforce the provisions of the Act on energy performance of buildings from 2014 regarding the performance of control of the heating and air-conditioning system. heating installations with nominal power above 20 kW, used for a minimum of 15 years must be subject to one-time control of energy efficiency (efficiency) must be subject to
- In the area of education mechanisms, national information campaigns in the mass media are needed, showing the problem of air pollution, its health effects and solving the problem by performing complex thermo-modernization of single-family houses with the replacement of a heat source to low-emission. At the local level, a network of energy advisors should be created (eg based on eco-consultants in Małopolska or energy advisers from NFOŚiGW in other voivodships) providing specific advice to owners of single-family houses
 - in order to introduce a large-scale financing instrument, Personal Income Tax reduction should be applied to persons who have subjected their single-family house to thermo-modernization and to abstain from income tax applied currently for the thermos-modernisation bonus for owners of single-family houses being natural persons.
- In terms of improving the availability of financial resources, the following postulates should be taken into account:
 - The World Bank sees the possibility of better coordination of hitherto suboptimal distributed programs supporting the improvement of energy efficiency in single-family buildings at the national, regional and local levels. It is proposed to create an Energy Efficiency and Anti-Smog Fund to collect available resources for thermal modernization of single-family houses and replacement of boilers. The collected funds will be transferred to two groups of beneficiaries using two different instruments. These will be subsidies for

energy-poor households for comprehensive thermo-modernization with replacement of boilers, as well as commercial loans for households that are not energy-poor, with tax incentives, e.g. deduction of part of expenditure from income tax

- while developing such instruments addressed to households, it should be remembered that the level of collateral that banks are asking for is a challenge for many homeowners. Loans available on the market are offered as unsecured consumer loans (which are short-term), or long-term mortgage loans. Both options are a challenge for many households that are not energypoor, but already indebted. The European Investment Bank presented an instrument based on experience in Lithuania, aimed at reducing security requirements, and thus facilitating the mobilization of resources to the energy efficiency financing program,
- there should be a one long-term program. Even if there were different implementing institutions and sources of financing, the principles of supporting thermo-modernization in all institutions should be the same, that there would be no competition between them,
- limiting the program to energy poor people is not appropriate. Much simpler, more effective and faster would be to create a program to support the thermal modernization of single-family houses for owners who are not energy poor (90% of owners of single-family houses).
- Banks, having a large network of their branches and electronic access to numerous clients, should create specific financial products that support thermomodernizations, and at the same time inform about local and national financial support instruments
- Banks, when selling their products, could run a financed publicly funded information campaign
- Organizations and entities that have participated in carrying out comprehensive thermo-modernization of buildings, including:
 - Administrators of public and non-public real estate,
 - Local governments
 - Energy agencies,
 - Professional energy auditors,
 - Business Support Institutions,
 - Energy Services Companies (ESCO).
 - o NGO's.

• A special role should be played by municipalities, providing information to potential investors about available financial mechanisms, explaining legal regulations, organizing owners of single-family houses into investment groups that would choose contractors for thermo-modernization investments.

CLOSING PLENARY

Zbigniew Kamieński, Consultant, Consultant Group NFOŚiGW

Mr Kamieński expressed great satisfaction with the participation of such a large group of specialists, including those who until now were not actively involved in shaping financial instruments for improving energy efficiency. He assured that the effects of this meeting will be observed and he expressed the conviction that proposed actions should be implemented. He counts on close cooperation and expressed hope for the implementation of recommendations defined by the participants of the Roundtable.

Céline Tougeron, Project adviser at the European Commission - Executive Agency for Small and Medium-sized Enterprises (EASME)

In her opinion, the set goals of the Roundtable have been achieved. Discussions were constructive although sometimes controversial. She expressed hope that the dynamics of this meeting will be used in practice. She signalled, that the activities of the SEIF program are continued in 15 EU member states. In each of them there are meetings of the Roundtable. She also indicated that webinars are organized on various topics. She encouraged meeting participants to familiarize themselves with SEIF program materials on the website https://ec.europa.eu/energy/en/financing-energy-efficiency/sustainable-energy-investment-forums .

CLOSING REMARKS

The Roundtable meeting was an important event for the continuation of dialogue between key Polish stakeholders on improving access to energy efficiency financing instruments, as well as exchanging views and experiences and defining common goals and possible solutions to be implemented in the context of current policy and practice.

The great interest of the participants in its results prompts the main organizers to create another opportunity to continue this dialogue under the SEIF program.

LIST OF PARTICIPANTS

Plennary session

1.	Kujda	Kazimierz	NFOŚiGW
2.	Pinault	Margot	European Commision, DG ENERGY
3.	Janiak	Marcin	Ministry of Energy
4.	Tougeron	Celine	EASME
5.	Meluch	Bolesław	Polish Bank Association

Session 1: Development of the EPC/ESCO market

1.	Borek	Marcin	Ernst&Young
2.	Herbst	Irena	Foundation for Public-Private Partnership
3.	Jabłońska	Danuta	Foundation for Public-Private Partnership
4.	Jamiołkowski	Marcin	NFOŚiGW
5.	Janiak	Marcin	Ministry of Energy
6.	Jedynak	Anna	City of Sonowiec
7.	Jeziorski	Maciej	Philips Lighting Poland
8.	Kumpiecki	Piotr	WFOŚiGW w Gdańsku
9.	Lauko	Marcel	Energy Centre Bratislava
10.	Ławrywjaniec	Krzysztof	CEZ ESCO Polska Sp. z o.o.
11.	Marciniak	Bartosz	PROMAR Sp. z o.o.
12.	Pernetta	Robert	EIB
13.	Stypka	Stanisław	PGE Energia Ciepła-Polish Heat Energy Group
14.	Szcześniak	Radoslaw	Institute of Public and Private Partnership
15.	Śniegocki	Aleksander	WiseEuropa
16.	Twardowski	Jan	SAPE/FEWE
17.	Wasilewski	Przemysław	PGE Polska Grupa Energetyczna S.A.

BOŚ Bank 18. Żyła Anna

Session 2: Improvement of EE finance in the Industry/SME sector

1.	Amrozy	Marek	Natinal Energy Conservation Agency
2.	Bawół	Maciej	PGE Polska Grupa Energetyczna S.A.
3.	Chmielewska	Anna	European Bank for Reconstruction and Development
4.	Ciszewska	Aneta	Ministry of Energy
5.	Favaretto	Nicoletta	Eurochambers
6.	Kamieński	Zbigniew	NFOŚiGW
7.	Hirny	Adam	Bank BGZ BNP Paribas SA
8.	Majewski	Maciej	Bank BGZ BNP Paribas SA
9.	Kardaś	Piotr	Polish Glass Manufacturers Federation
10.	Kassenberg	Andrzej	Instytut na rzecz Ekorozwoju
11.	Liszka	Szymon	Fundacja na rzecz Efektywnego Wykorzystania Energii / Stowarzyszenie Agencji Poszanowania Energii
12.	Papiór	Roman	WFOŚiGW we Wrocławiu
13.	Parczewski	Zygmunt	Inependent Expert
14.	Pierzchalska	Dorota	The Polish National Energy Conservation Agency
15.	Ślęk	Bogusław	ZPSO "Pol-lighting"
16.	Trojnacki	Marcin	EnMS Polska Sp. z o.o.
17.	Śnihur	Piotr	PolREFF

Session 3: Promotion of One-Stop-Shop concept

1.	Augustynowicz	Sabina	Grupa Medium
2.	Claustre	Raphael	Mlei Postif

3.	Boucneau	Patric	ESCO Limburg
4.	Bagiński	Jerzy	Energy Conervation Foundation
5.	Grecka	Katarzyna	Baltic Energy Conservation Agency
6.	Kulczycka	Daria	Confederation Lewiatan
7.	Meluch	Bolesław	Polish Bank Association
8.	Michniowski	Zbigniew	Stowarzyszenie Gmin Polska Sieć Energie Cites
9.	Rajkiewicz	Andrzej	National Energy Conservation Agency
10.	Smoła	Michał	PolREFF
11.	Stawiany	Wojciech	NFOŚiGW
12.	Trudzik	Anna	NFOŚiGW
13.	Witczak	Konrad	Lodz Technical University
14.	Żurawski	Jerzy	Lower Silesian Energy and Environment Agency
15.	Paquel	Kamila	EASME

Session 4: Development of financing instruments of EE in single family buildings

1.	Bielewicz	Antoni	European Climate Foundation
2.	Błach	Marcin	Ministry of Investment and Development
3.	Bondarczuk	Zbigniew	Ministry of Investment and Development
4.	Firląg	Szymon	Buildings Performance Institute Europe (BPIE)
5.	Guła	Andrzej	Institute of Environmental Economics
6.	Kwapisz	Henryk	Saint-Gobain
7.	Loth-Babut	Karolina	The Polish National Energy Conservation Agency
8.	Marczuk - Lepianka	Marzena	Ministry of Finance
9.	Markiewicz	Daniel	NFOŚiGW

PROCEEDINGS OF NATIONAL ROUNDTABLE ON FINANCING ENERGY EFFICIENCY IN POLAND, WARSAW 15TH OF MAY 2018

10.	Osuch	Przemysław	BGK
11.	Ożóg	Tomasz	Gmina Skawina
12.	Ramęda	Arkadiusz	Ministry of Finance
13.	Sołtysek	Piotr	City of Bielsko-Biała
14.	Starościak	Janusz	Stowarzyszenie Producentów i Importerów Urządzeń Grzewczych
15.	Trojnar	Paweł	PGE Polska Grupa Energetyczna S.A.
16.	Węglarz	Arkadiusz	The Polish National Energy Conservation Agency
17.	Wiszniewski	Andrzej	National Energy Conservation Agency
18.	Wolszczak	Grzegorz	World Bank
19.	VON THADDEN	Goetz	EIB