

SECOND ROUNDTABLE ON FINANCE FOR ENERGY EFFICIENCY IN ROMANIA



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EXECUTIVE SUMMARY

The European Commission, in partnership with the Ministry of Energy, the Ministry of Regional Development and Public Administration, the Ministry of European Funds of Romania, the Romanian Energy Regulatory Authority and the UN Environment Finance Initiative, organized a round table in Bucharest on 6 June 2019 on financing energy efficiency in Romania. The event was attended by 91 experts from Romania and European institutions who are engaged in financing energy efficiency across multiple sectors of the economy. Those represented included the national Government, local and regional authorities, the financial sector, project developers and the renovation supply chain.

The objective of the National Roundtable was to initiate a dialogue between key Romanian 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.

The objective of the Roundtable was to foster discussion on:

1. How to support homeowners in the whole journey of home energy renovation, i.e. identification of the energy efficiency measures, selecting construction companies, supervision of the works, structuring the financing plan, etc., based on the idea that an integrated service (one-stop-shop) can simplify to a large extent the renovation process and thus increase renovation rates.
2. The EEFIG propositions (DEEP database and Underwriting toolkit), as well as the emerging practice of green mortgages, looking into how the assessment of the risk profile of energy efficiency investments can be improved in order to make energy efficiency more appealing to the banking sector.
3. How to increase the renovation rates for public buildings, which is often limited by the capacity of public building owners to identify and implement energy efficiency projects. Energy performance contracting could be part of the solution, but the market needs to be developed and structured.

Conclusions

The outputs from the three in-depth topic groups, were summarized by the rapporteurs as:

Topic Session 1: Integrated home renovation services

- One-Stop-Shops with a single point of entry for end-users is generally considered a good mechanism to facilitate implementation of energy efficiency measures in the residential sector. Some experience can be gained from the activities of EIB and EBRD in Romania. Further, the upcoming pilot project in Timisoara under the “PadovaFIT Expanded” H2020 project is of interest in relation to local government driven One-Stop-Shops. Various pilots are needed to demonstrate how One-Stop-Shop approaches can work in Romania and how they can deliver results and overcome specific barriers to action.

- The key components of a One-Stop-Shop in Romania would be:
 - Information and Communication towards homeowners and building owners, including tailored information about energy efficiency measures and their benefits.
 - Statistics and data on the number and types of buildings, their current consumption, ownership etc.
 - A Technical Assistance component, including energy audits to identify the actual measures and benefits.
 - A financial component: The OSS should be able to offer and/or link to various financing options/schemes. In this respect the OSSs should be taking responsibility with respect to standardization (e.g. standardized templates for trustful contracting among the parties), guarantees from third parties and post implementation monitoring (accountability).
- The most effective type of an OSS would be a local government driven because of the resources it might attract and of the trust it might generate. Due to their role as facilitators for implementing local strategic visions, municipalities are in the best position to involve and coordinate all services to be supplied to the beneficiaries. Other stakeholders to involve along the value chain would be designers, energy auditors, banks, ESCO companies (provided that the legal framework will be improved) etc.
- The most manageable type of an OSS to be started in Romania seems to be consultant driven, with a strong support from the industry (equipment providers).
- The financial sustainability of an OSS might be ensured through accessing EU funds for the first 2-3 years, and by attracting the industry players (equipment providers, ESCO companies) as the most interested parties in getting the job done.
- Based on the Padova study case, engaging the local community is key for an OSS to start its functioning. Thus, the first step is a solid effort of communication / information / education among the beneficiaries. Then, adapting the templates / standards tested and validated elsewhere. Then, getting industry players on board and aggregating / adapting their offers to the local needs as identified. Finally, identifying the most suitable financing source. All projects must end with a solid monitoring of the results of the renovation in terms of reduced consumption, but also in respect with the new behavior of the owners / inhabitants of the renovated buildings.

Topic Session 2: De-risking energy efficiency investments

- There is a continued need to strengthen the cooperation between the various stakeholders from the energy sector and the financial sector and to meet and discuss on a regular basis. In addition to an overall Steering Group it is necessary to establish various working or coordination groups on specific topics, for example on the green mortgage market and guarantee schemes.
- There is a need to focus more on the “client” including intensifying the dialogue with homeowners and homeowner associations to further manage performance and funding risks. This includes a need to raise awareness regarding the possibility to borrow money

to invest in energy efficiency. Beneficiaries should be supported to also care about long term investments.

- The promotion of energy efficiency should be based on replicating best practice models and results rather than presenting general benefits.
- The demand should be further stimulated by focusing on financial education both within the financial sector and the energy sector and on improving the regulatory framework.
- It is important to develop guarantee schemes and standardized products as well as technical assistance programmes involving experts with the required expertise to minimize risks. Correctly designed and implemented technology is important for de-risking. Therefore, it is also important to coordinate the development of the overall framework closely with experts from the research area, from engineering companies, technology providers etc.
- It is important to promote standardisation and benchmarking for project development, documentation and monitoring. However, this is related with many challenges due to a fragmented Romanian market.
- Data collection should be improved to enable better documentation and aggregation around standardized procedures.
- European Funds should be a booster to leverage private finance (related to more effective use of public funding).
- Following the presentation of the DEEP database at the First Roundtable, the Romanian banking sector has an increased focus on the DEEP database, its further development and synergies with other tools created within various energy efficiency programmes.

Topic Session 3: Energy renovation of public buildings

- A national task force is needed to coordinate all the working groups which are currently existing at the decision level in relation to promoting energy efficiency in public buildings.
- The national strategy should be aligned with the local strategies. The knowledge and experience at the local level should be considered. A meaningful strategy would require input from people working at the local level who are aware of the particular local needs.
- The national strategy should be followed by a funded Action Plan.
- There is a general lack of valid data for credible project documentation and monitoring, and also in relation to the preparation of the national plan. There are many registers and databases, but their credibility is questionable. Registers need to be available publicly and buildings data management needs to be strengthened.
- At the local level the ownership of the buildings is often unclear, which makes it difficult

to apply for grants. There is a need to synchronise building registration in municipalities with national programs and records to get a clear definition of ownership.

- There is a need to create some flexibility and coordination with respect to projects that received funding both in relation to earthquake risks and in relation to energy renovation.
- It is necessary to allocate funds for increasing implementation capacity at local level and particularly for small and medium sized municipalities. County level expertise on energy management and project development should be established, but attention should also be paid to the consulting market, which can provide the services but against payment.
- Proposals were also raised about decreasing the co-funding part for small and medium sized municipalities within structural funds.
- As expressed by the ESCO WG led by ANRE there is a need to design a standard EPC model for public buildings. Considering the lower complexity and the relatively high savings potential in street lighting projects, it has been decided in a first phase, to design an EPC model for the rehabilitation of Public Lighting Systems. Based on the experience gained, the energy performance contracting model will be modified to cover public buildings. The work is amongst others being coordinated with the Ministry of Public Finance.
- Current initiatives are also closely coordinated with the EIB in relation to the Eurostat Guide, and particularly in relation to using “off balance sheet” or “Maastricht neutral” preferential financing. Both roundtables have supported this cooperation.
- There is a need to establish an ESCO register in relation to an ESCO certification system, which is also related to the standard model under development.

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 [webpage](#).

An initial [regional conference](#) on Financing Energy Efficiency in Romania, Hungary and Bulgaria took place in Bucharest on 1 February 2018. Over 180 participants attended, representing the public sector (Romanian Government, local and regional authorities, energy agencies, and European institutions), the financial sector, project developers, and the renovation supply chain.

A first roundtable on financing energy efficiency in Romania was organized in Bucharest on 11 October 2018. The event was attended by 72 experts who are engaged in financing energy efficiency across multiple sectors of the economy. The objective of the first roundtable discussion was to initiate a dialogue between key Romanian 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 Romania.

This second roundtable followed up on these events and devoted a significant amount of time to discussions in breakout sessions and interaction between participants in order to discuss the selected topics in depth and to provide recommendations and specific actions to facilitate energy efficiency investment in Romania, with a focus on its buildings sector and the post 2020 period.

INTRODUCTORY PLENARY

Moderator: Gabriel Avăcăriței, Chief Editor, Energynomics.ro

Introductory Remarks

Tudor Constantinescu, Principal Advisor, DG ENERGY, European Commission

Mr. Tudor Constantinescu informed about the Clean Energy for All Europeans package for which all the political negotiations have now been concluded. This is a major step towards completing the Energy Union and combatting climate change. The political agreements enable all new rules to be in force by mid-2019. EU countries have 1-2 years to transpose the new directives into national law.

The EU has set binding targets of at least 32.5% energy efficiency relative to a 'business as usual' scenario (2007 projections). The amending directive on energy efficiency has been in place since December 2018. Further a binding target of 32% for renewable energy sources in the EU's energy mix by 2030. The recast renewable energy directive entered into force in December 2018.

To reach these goals we need approximately the same energy efficiency effort from 2020 to 2030 as from 2010 to 2020. In the past three years the overall consumption grew more than expected so for the next period the action should be strengthened.

The building sector is important as it is responsible for 40% of energy consumption and 36% of GHG emissions in EU. 75% of the housing stock is energy inefficient. However, it has been noticed that we have a very low refurbishment rate (0.4-1.2% per year). At the same there are limited new construction activities (0.4-1.1% per year). Problems are related to regulatory and market failures.

An evaluation of the EPBD indicates it as effective (will deliver the 60 - 80 Mtoe energy savings by 2020). Actions are a.o. needed towards modernisation in terms of technological progress towards 'smarter' buildings and better linking with financial support systems.

The main outcomes of the EED revisions included extended energy savings obligation to achieve new annual energy savings of at least 0.8% (of final energy consumption) for the next period 2021-2030 and beyond, coming from new energy efficiency renovations or other measures in end-use sectors (11% more ambitious than in the current period). It also aims at providing better information to consumers through individual metering and billing of thermal energy.

The amendment of the Energy Performance of Buildings Directive (June 2018) introduces targeted amendments to the current Directive aimed at accelerating the cost-effective renovation of existing buildings, with the vision of a decarbonised building stock by 2050 and the mobilisation of investments through a solid financial component. Further, the revision supports electromobility infrastructure and introduces new provisions to enhance smart technologies and technical building systems, including automation.

It includes an obligation for member states to facilitate access to appropriate mechanisms for aggregation of projects, the reduction of perceived risks of energy efficiency, use of public funding, guiding investments, and providing accessible and transparent advisory tools.

Critical factors in relation to implementing the EPBD includes; building renovation has to do more, financing has a more important role to play, and ICT has a big role to contribute.

As to more effective use of public funds the strategic priorities include making more use of financial instruments, establishing flexible financing platforms at national level, mixing different strands of public financing (i.e. ESIF, EFSI), on-line EU mapping tools to understand how public funds can be used to support energy efficiency in Europe and initiatives to make the use of Energy Performance Contracting more accessible to the public sector.

The annual investment gap to reach the 2030 is estimated to be between € 150 to 200 billion. Public support alone will not be sufficient to meet those investment needs. The private sector will have to play a huge role and a smart policy framework is needed to incentivise private investment.

Mr. Constantinescu further presented future EU funding for Energy Efficiency including the key sources below:

- Capacity building and policy support - LIFE/Clean Energy
- Direct support towards clean energy investments - ERDF/CF, CEF
- R&I and technology development - Horizon Europe
- Mobilising private investments through de-risking – InvestEU

Please refer to the slides below for more details:

[Presentation](#)

Mihaela Toader, Secretary of State, Ministry of EU Funds

Mrs. Toader referred to the ongoing consultation with EU on the next financing period (2021 - 2030). Many discussions are ongoing with various stakeholders and she invited for suggestions and feedback, and further mentioned that feedback from the Roundtable would be useful in the process.

She noticed that in the current financing period Romania is among one of the few countries that didn't allocate funds for enterprises. This will be a priority for the next period. She stressed that this will be related with challenges in relation to the relatively big share of SMEs in the market which as a starting point are more focused on survival than Energy Efficiency. EE related to buildings is a huge problem as 3/4 of the population lives in elder buildings. Beyond this public service buildings like hospitals, schools and other social service buildings are in big need of energy efficiency and will remain an important component post 2020 together with the residential sector. There will also be focus on increasing energy efficiency in DH systems.

She stressed the importance of having a good dialogue with the beneficiaries. There is a lot of learning from the past. The process is now on a right path and many challenges related to selection and assessment of projects have been overcome.

Dana Chirvase, Counsellor, Ministry of Energy

Mrs. Chirvase stated the topics at the roundtable as very important considering the implementation of the EU policies agreed at the end of 2018. She mentioned the Romanian

targets for 2030. EE: 37.5%, RES: 27.9%, CO2: 43.9% (ETS emission), 2% (non ETS emission).

The household area contributes significantly to the overall consumption and covered in 2016 33.42% of the final consumption. The service sector has a 9.29% share. There is a big saving potential in the building sector. If looking at the national plan the savings in the residential sector will represent 41.08% and the service sector 22.68% of the cumulated savings in 2020. The first step to reach EU strategies is investment at the building level. The development and digitizing of the energy systems by means of smart metering (heat and electricity) will influence the consumption patterns and is a prerequisite for creating an innovative integrated system with RES and energy storages.

She further mentioned the SFS initiative and emphasized the need to attract private funds including the need for a standardisation framework. Use of only public funds is not enough to explore the potential. It is essential to attract private funds. In this context, the energy policy must create more favourable conditions for investments encouraging demand for energy efficiency.

Andrei Iorgulescu, General Manager, The Environment Fund Administration

The Environment Fund Administration is a public institution coordinated by the Ministry of Environment, financed entirely from its own revenues. The main objective of EFA is financing and implementation of several categories of programs for the sustainable development of Romania and the improvement of the environmental infrastructure.

EFA has amongst other financed installation of heating systems using renewable energy, including replacement of existing traditional systems.

EFA has designed a state aid scheme to finance installations producing electricity from renewable energy sources with a limited power of up to 3 kwp and the connection of these installations to the national electricity grid. The beneficiaries are households (prosumers). The prosumer concept was adopted in the national legislation in 2018.

This new programme is expected to be launched within a month. The guide for applicants has been approved and the validation of specialist is ongoing.

Zoltan Nagy-Bege, Vice President, ANRE

Mr. Nagy-Bege referred to the EU targets for EE and RES and underlined that particularly for the EE target there are many challenges ahead for Romania. There has been some good progress in Romania, the 2020 RES target for renewables was exceeded (now at 24.5%) and Romania is one of the EU countries which achieved more energy savings between 2014 and 2018 than projected.

The targets regarding energy efficiency and RES for 2030 has been set at 37.5% and 27.9% respectively. The negotiations with EU will be finalised at the end of 2019. Mr Zoltan Nagy-Bege believes that the target for RES can be higher, as Romania has a big potential in this area. However, there are big challenges ahead, including strengthening the electricity grid to integrate more RES. He stressed the important role of the consumers and prosumers in supporting innovation in the transformation of the energy market.

He referred to analysis work made in relation to the working group established for developing the ESCO market, and which is led by ANRE. Currently there is no market for ESCO/EPC contracts and in fact no ESCO projects are related to public buildings, despite a high interest. There are many problems related to the legislative framework and after long discussions it was noticed that the problem is very complex and particularly after discussion with the EIB. The need to facilitate a discussion within an inter-ministerial group was realized.

Ramona Ivan, Director, CEC Bank, and Chairperson of the Committee on European Funds, Romanian Association of Banks

Mrs. Ivan highlighted the importance of energy efficiency in relation to energy security, reducing the negative impact on the environment and reducing costs at company / household level.

She stated the need for technical assistance to the proper identification and documentation of EE projects and also the need for banks to be more focused on understanding energy efficiency projects and support them more efficiently. The Romanian banking sector has been involved in several programmes, including structural funds and European funds from which various learning and experience can be drawn, including from good examples. There is still much to do and many challenges ahead but there is also a will and a collective desire to create more progress. The banking sector is open to participate in various partnerships and forums on the subject. However, it is important that the efforts and the discussions are put into concrete measures and actions.

She mentioned that the banking sector has an increased focus on the DEEP database, and they will follow the further development of this possibly creating synergy with tools created within various energy efficiency programmes.

It is important to develop guarantee schemes and standardized products as well as technical assistance programmes involving experts with the required expertise to minimize risks. Special concerns should be given to buildings located in earthquake zones as well as historical buildings.

[Presentation](#)

TOPIC GROUP 1: INTEGRATED HOME RENOVATION SERVICES

Moderator Gabriel Avăcăriței, Chief Editor, Energynomics.ro

Rapporteur: Mihai Moia, Executive Director, ROENEF - The Association for Promoting Energy Efficiency in Buildings

Cohesion policy support to energy efficiency investment in residential sector

Damien Cocard, European Commission - DG Regio

Damien Cocard presented the current support to the ESIF programme, which is mainly allocated to EE for residential and public buildings, approx. 750M€ ERDF. Other types of investments include public lighting, DHS, RES, CHP, smart metering for SMEs (approx. 450M€).

As to Residential blocks of flat the main challenges are related to involvement of association of owners and co-financing from owners and municipalities, small RES integration in blocks and expertise. As to public buildings main challenges are related to EE vs overall rehabilitation or extension of buildings, co-financing from municipalities and loans from banks. DHS (district heating systems) has started in 7 regions.

The future support from ESIF is under negotiation (Order of magnitude: 5-6 b€ for climate, environment, energy). The proposed sectors for EU co-financing include residential (blocks), public buildings; small RES integration when possible, DHS. There will be an increased focus on how to better involve stakeholders and mobilise finance.

[Presentation](#)

PadovaFIT Expanded - Establishment of a One-Stop-Shop in the Padova area providing integrated home renovation services

Maurizio Minicuci, Municipality of Padova, Italy

PadovaFIT is an initiative for the energy refurbishment of multi-property residential buildings for the City of Padova (210,000 inhabitants). Within this project, the Municipality of Padova has launched a Financing Investment Tool for the multi-property residential buildings. The work in the subscribed buildings is performed by an Energy Service Company (ESCO), in partnership with an engineering company. The focus has been on buildings built in the 1960s - 1970s period (mainly Class G condominiums). The ESCO manages integrated energy services that offers contracts with guaranteed performances, whose fees are directly connected to the achieved energy savings (energy performance contracting – EPC). Building on this experience the PADOVAFIT Expanded aims at creating and piloting a dedicated One-Stop-Shop in Padova, expanding the business model to Timișoara (Romania) – launching and piloting a One-Stop-Shop as well – and supporting the Bulgarian Energy Agency of Plovdiv to prepare the ground for the

metropolitan areas of Burgas (BG) and Smolyan (BG) to take on the examples of Timișoara (RO) and Padova (IT).

As suggested by previous experiences, the strategy should not be at regional or city level, but at neighbourhood level since it is very much likely they have similar dwelling typologies, construction eras, construction types, historical values, etc. The living example of neighbours can be a significant trigger for further renovations. The project will include training of community facilitators with technical and less technical background in soft and hard skill that will allow them to engage residents and provide motivational input or participate in public or condominium assemblies.

[Presentation](#)

Challenges for the Municipality in relation to the “PadovaFIT Expanded” project

Mihai Vălceanu, Municipality of Timisoara

The Municipality of Timisoara inhabits approximately 330,000 inhabitants, it has approximately 3,700 condominium buildings and as in Padova there is a relatively big share of apartment buildings built before 1970 with low energy efficiency (50%). The Municipality has previously implemented EE measures in 20 condominiums. The reason for the Municipality to enter the PadovaFIT Expanded project is related to amongst other a lack of readily available and relevant know-how for building/apartment owners as well as a need to explore alternative funding mechanisms, due to limited municipal and private funding. Further, there is a lack of standardized tender & contract documents and a need to accelerate deep building refurbishment in Timisoara.

The expectations and challenges related with the project were reported as:

- Defining the role of the municipality as a catalyst for private homeowners, house owner associations as well as a building owners
- Obtaining a consensus among individual apartment owners in relation to decisions on refurbishment measures
- Employing a bundling strategy to create interest among private actors
- Adapt previously established good practices to optimize business processes and standardize contractual agreements in the context of Romanian legislation
- Changing public behaviour as well as their perception of refurbishment projects
- Changing local business culture which tends to favour quick gains to long term commitment
- Getting the appropriate actors to work in consensus in order to set up the OSS
- Obtaining support from appropriate decision makers

[Presentation](#)

Experiences from energy renovation of residential buildings

Petre Mihaila, Chief Architect, Municipality of Râmnicu Vâlcea

Râmnicu Vâlcea is the capital of Valcea County and is situated 176 km from Bucharest in the Southern Western part of Romania. It inhabits 118,398 inhabitants. The Municipality is in the process of rehabilitating 46 housing blocks and 3 public buildings by means of European funds, state funds and local funds. The total project value is 108,508,385 lei of which 50.114.288,7 lei is financed by European funds (non-reimbursable financing). This rehabilitation is designed to lead to improved indoor comfort conditions, reduced energy consumption, reduced maintenance costs for heating and domestic hot water and reduction of CO2 emissions.

Mr. Petre Mihaila highlighted these challenges:

- It is important that cost standards are updated (in the Applicants guide). Certain categories of works are difficult to implement if the real costs exceed the standard value in the application.
- There is a lack of funding schemes for owners. Legal persons or owners of premises (other than the homes of the condominium) will have to pay the full cost of the rehabilitation works. If they disagree with the suggested work, the project cannot get financing.
- There is a need for long-term national programmes. The current programs are challenged by annual budgetary constraints.
- There is a lack of information campaigns for citizens at national level, which could also support the municipalities in convincing homeowner about the benefits of building rehabilitation.
- There is need to update building databases and create a national database, which should also include data on the implemented energy efficiency measures.

Presentation

Following the presentations there were initial discussions on the aims of One-Stop-Shop facilities and their benefits. Different expertise was represented, and different opinions were expressed. Some doubts were raised in relation to the added value of One-Stop-Shops in relation to what energy auditors and municipalities are already doing.

However, most agreed on the idea of developing and implementing the concept in relation to the Romanian conditions and based on a single point of contact for homeowners and building owners providing integrated services. There were also representatives from EIB and EBRD who shortly briefed about experience with one-stop-shops established in Romania in relation to their various schemes implemented in Romania.

As to conclusions please refer to the Executive Summary above.

Background

This working group focused on how to support homeowners in the whole journey of home energy renovation, i.e. identification of the energy efficiency measures, selecting construction companies, supervision of the works, structuring the financing plan, etc., based on the idea that an integrated service (one-stop-shop) can simplify to a large extent the renovation process and thus increase renovation rates.

The Public Conference stressed the need to bring all stakeholders together and favour an integrated approach involving knowledge transfer and capacity building. Several speakers highlighted the need to more efficiently involve and empower citizens, including assisting Condominiums in attracting funding (e.g. House Owner Associations). Energy poverty was mentioned as a particular problem and EE as a potential mean to mitigate this.

The importance to assist cities/public authorities in their roles as facilitators for EE investments in the private sector was also highlighted at the public conference. In this context particularly energy agencies drew attention to the fact that Romanian cities and regions can benefit and should make efforts to benefit more from the ELENA Programme and the money managed under H2020 for Project Development Assistance.

Following the Public Conference, the First Roundtable identified a further need to look into implementing the One-Stop-Shop concept. The Roundtable included a concrete example of integrated home renovation service in Picardie (FR), which has received support from the ELENA programme.

Recommendations from the First Roundtable:

- There is a need and interest for setting up One-Stop-Shop / project development mechanisms. This could for example be done by public authorities in cooperation with energy agencies. Pilots should be initiated
- White certificates need to be developed so they can finance part of the renovation costs. This needs changes in the legislative framework
- There is a need for a continuous dialogue platform between local authorities and the Ministry of Regional Development in order to share best practices and exchange on problems faced by municipalities in relation to project development. This should involve the associations representing the various municipalities
- One of the particular needs is more communication on ELENA / PDA grants (EIB and H2020) that can help to start investment programmes. Local authorities have currently little knowledge about these possibilities, and which haven't been used in Romania yet
- There is a need to involve House Owners Associations more actively in the projects and let them take more responsibility. This should also discuss the level of co-financing needed from households in the frame of the ERDF programme
- The legal requirements for all municipalities with a population above 5,000 to make an inventory of buildings with their energy consumption and on this basis to prepare an energy efficiency action plan, needs to be enforced and better monitored. The county/regional level could be relevant to provide assistance on this while ANRE would be responsible for the overall monitoring

- There is a need to change the law on PV which does not allow homeowner associations to sell to the grid (unless they have a licence as electricity producer). This is being discussed with DG COMP as there was an issue linked to State aids; a solution is looked for under the De minimis regulation.

Key questions

Based on the conclusions from the first roundtable, the second roundtable aimed at providing concrete recommendations and suggesting next steps in relation to setting up One-Stop-Shop facilities in Romania for residential buildings (OSS) - considering the barriers and success drivers presented by municipalities in the introductory presentations.

- 1.1. What would be the key components of a One-Stop-Shop in Romania, including services, and seen in relation to the various consumer segments?
- 1.2. Which actors need to be involved in a One-Stop-Shop (energy agencies, municipalities, regional authorities, banks, ESCOs, service providers, others...)?
- 1.3. What is the most effective type of a One-Stop-Shop in Romania (industry driven, consultant driven, ESCO driven, local government driven or cooperative driven) - and considering the particularities of consumer segments, regions and municipalities?
- 1.4. How can the financial sustainability of a One-Stop-Shop be ensured?
- 1.5. Which financial instruments should be in place to attract private-sector investment? How can the OSS solution contribute to this? How can public funds be used to leverage additional private-sector investment? How can we shift from grant-based support to financial instruments (project aggregation, one-stop-shops, standardisation measures etc.)?
- 1.6. How can a Pilot OSS be set up (next steps)?

TOPIC GROUP 2: DE-RISKING ENERGY EFFICIENCY INVESTMENTS

Moderator: Ramona Ivan, Chairperson of the Committee on European Funds, Romanian Association of Banks

Rapporteur: Tiberiu Andrioaiei, Secretary General, Romanian Association of Construction Companies

De-risking Tools: The Investor Confidence Project, EEFIG DEEP & Underwriting Toolkit

Steven Fawkes, ICP Europe Senior Advisor

Steven Fawkes initially presented the characteristics of de-risking. A de-risked asset for example has standardized methodologies, standardized contracts and known and understood risk profiles (see more in the presentation). He further presented various types of risks: Development risk - Construction risk - Performance risk - Financial risk and highlighted the importance of having valid data. Investors & CFOs can manage risk, but uncertainty prevents decisions.

He further presented the Investor Confidence Project (ICP), an international framework for reducing owner and investor risk, lowering due diligence costs, increasing certainty of savings achievement and enabling aggregation of energy efficiency projects. It functions as a quality mark for an “ENERGY EFFICIENCY RETROFIT PROJECT”, and ensures transparency, consistency and trustworthiness through best practice and independent verification.

He also presented DEEP, which is the largest pan-European data platform for benchmarking the performance of energy efficiency investments. Further, the EEFIG Underwriting toolkit, which helps financial institutions better understand and evaluate value and risks and provides a common framework for evaluating energy efficiency investments and analysing the risks.

He drew a comparison between the situation in the 90s, when he worked in Romania, with the situation today. He, amongst others, mentioned that back in the 90s where energy costs were low, EE was perceived as having little or no risk and there was little or no investor interest. Today EE has manageable risk and there is a lot of investor interest. We have the tools to de-risk it and create a financing market at scale (see more in the presentation).

[Presentation](#)

Smarter Finance for Families + status of the green mortgage scheme launched in Romania

Steven Borncamp, Project Director SMARTER Finance for Families and Advisor to the Romania Green Building Council

Co-presenter: Ana Maria Ciortan, Deputy Director, Alpha Bank

Steven Borncamp presented the green mortgage programme, which Romania Green Building Council (RoGBC) has co-developed with Raiffeisen Bank and Alpha Bank. This is based on an innovative green homes certification to assess and recognise top-performing residential projects utilising sustainable construction principles. The preferential financing allows the project developer to invest early in essential green design and other solutions. Through the programme, banks offer lower mortgage rates to green home buyers. This allows home buyers to borrow more for energy efficient construction or renovation, while reducing the total cost of monthly ownership.

By the beginning of 2019, RoGBC had signed agreements with 25 investors to build more than 6,500 apartments or villas in Romania meeting strict green standards (Cluj-Napoca, Iasi, Bucharest, Brasov)

By means of Horizon 2020 EU funding, the project is now planning its expansion into 11 other countries, including: Bosnia-Herzegovina, Bulgaria, the Czech Republic, Greece, Ireland, Italy, Poland, Slovakia, Ukraine, as well as Georgia and Turkey.

Steven Borncamp indicated a desire to engage more Central Banks in supporting their green mortgage, and referred to the "[Network for Greening the Financial System](#)" (a network of central banks and supervisors), which in its "First Comprehensive Report" from April 2019 (A call for action Climate change as a source of financial risk) declared that climate risks are a source of financial risk and it therefore falls squarely within the mandates of central banks and supervisors to ensure the financial system is resilient to these risks.

In the second part of the presentation, views from Raiffeisen Bank and Alpha Bank were presented – they explained why the banks decided to get involved in these initiatives and provided details on the conditions that apply. Raiffeisen Bank stated that the reduced interest rate in relation to the Green Mortgage System is a sensitive issue for consumers. A standard loan is offered at an interest of 5.5% for the first seven years and 4.75% for a green mortgage loan. For loans based on more than seven years' maturity it is 5.35% versus 4.6%.

[Presentation](#)

Horizon 2020 support to de-risking energy efficiency investments

Björn Zapfel, Senior Project Advisor, European Commission - EASME,

Mr. Björn Zapfel initially introduced the EU initiative “Smart Financing for Smart Buildings”, with the three main elements:

- More effective use of public funds (deploying Financial Instruments; building on EFSI blending with ESIF funds; innovative financing schemes leveraging private funding)
- Assistance and Aggregation (supporting project pipeline at EU and local level; project development assistance facilities and one-stop-shops)
- De-risking (understanding the risks and benefits for financiers and investors; DEEP and the EEFIG underwriting toolkit).

He further introduced Horizon 2020 calls supporting actions in relation to this initiative:

- Mainstreaming energy efficiency finance (Call H2020-LC-SC3-EE-10-2018-2019-2020)
- Innovative financing for energy efficiency investments (Call H2020-LC-SC3-EE-9-2018-2019)

Some project examples were provided (see presentation).

[Presentation](#)

The following discussions focused on the importance of dialogue, the usefulness of guarantees, the need to consult the financial sector for legislative proposals involving financial instruments, the importance of standards and certification, solutions to increase the demand for financing on the market, multiple benefits of energy efficiency, financial education and the appropriate regulatory framework.

As to conclusions please refer to the Executive Summary above.

Background

This session focused on the EEFIG propositions (DEEP database and Underwriting toolkit), as well as the emerging practice of green mortgages, looking into how the assessment of the risk profile of energy efficiency investments can be improved in order to make energy efficiency more appealing to the banking sector.

Under current market conditions, energy efficiency projects are not sufficiently attractive for investors. The small size of many such projects and the lack of standardisation are among the factors behind this situation. Banks often make loan agreements based on the credit status of their clients or the property value whereas the benefits arising from the energy efficiency improvements are often not taken into account.

The need for standardisation was emphasized at the Romanian public conference in addition to the need to establish a closer connection between all the relevant stakeholders working in the field and the need for more education and training towards EE.

The public conference further included a [presentation](#) on recent established EBRD credit lines for the residential sector ([GEFF](#)). GEFF provides financing through local banks who are **Banca Transilvania** and **UniCredit**. Financing is subject to the usual criteria and assessment process of each bank. The banks may use GEFF to set up mortgage products to finance energy-efficient homes, or to improve the energy efficiency of existing homes.

A promising initiative in Romania is the **Green mortgage programme**, which was also [presented](#) at the Public Conference as well at the First Roundtable by the [Romania Green Building Council](#) (RoGBC). They have co-developed with Alpha Bank and Raiffeisen Bank this programme based on an innovative Green Homes Certification to assess and recognize top performing residential projects utilizing sustainable construction principles.

Recommendations from the First Roundtable:

- There is a need to meet again and to discuss on a regular basis – The Romanian Banking Association proposed to invite the relevant Ministries and other relevant stakeholders and host such meetings at the banking association. This could also provide a framework for establishing various working or coordination groups on specific topics
- There are already a few instruments dedicated to energy efficiency, but they need to be developed much more
- There is appetite of the banks for a guarantee scheme, but it needs to be designed well (banks should be consulted)
- In order to stimulate the demand, the focus should be on financial education and on improving the regulatory framework (e.g. the national banking regulations could be loosened regarding loan to value requirements, and/or by removing the current limitation to 5 years for consumer credits)
- There is a need to raise awareness of households and companies regarding the possibility to borrow money to invest in energy efficiency
- There is a need for benchmarking of energy efficiency projects, and for recognised labels that banks can use to develop their products.

Key questions

Based on the conclusions from the first roundtable, the second roundtable aimed at providing concrete recommendations and suggest next steps in relation to:

- 2.1. How can a continued dialogue between banks and the energy efficiency sector be put in place? Can an overall Cooperation Group/Steering Group/Task Force be set up to facilitate further dialogue and initiate and monitor/guide specific actions?

- 2.2. What regulation could foster the further development of green mortgages? Is there any specific Romanian regulation to be addressed? What kind of data is needed to further support the model? How could the Romanian banking sector (possibly in cooperation with the group mentioned under 2.1) support the further development of the initiative, including collection of data?
- 2.3. Which bodies can help in setting standards and benchmarks to minimise performance risk? How can the EEFIG underwriting toolkit best be used within Romania?
- 2.4. How can we improve data availability in Romania? What data might be available for Romania that can be shared through mechanisms such as the DEEP database?
- 2.5. How can guarantee funds be best structured to address the needs of the banking sector?

TOPIC GROUP 3: ENERGY RENOVATION OF PUBLIC BUILDINGS

Moderator: Viorel Alicus, General Director, Energy Efficiency Department, Romanian Energy Regulatory Authority (ANRE)

Rapporteur: Ion Dogeanu, Executive Director, AEEPM - Agency for Energy Efficiency and Environmental Protection / ManagEnergy

National Long-term Renovation Strategy

Otilia Nutu, Energy Forum Romania, Consultant World Bank

The World Bank is providing advisory services to the Ministry of Regional Development and Public Administration to support the consolidation of its strategic planning capacity to renovate the national stock of buildings for the purposes of energy efficiency and preparedness to seismic risks. The scope of the energy efficiency component is the elaboration of a gap analysis of the current set-up for energy efficiency in Romania and a road map to address gaps. Further, the preparation of new National Long-term Renovation Strategy for energy efficiency. This includes a Strategy for Energy Efficiency (EE) in buildings required under the revised EU Energy Performance of Buildings Directive.

At the current stage there is an interim deliverable which outlines the framework for the new Long-term Renovation, and which is subject to a round of consultation with sector stakeholders to receive feedback on the proposed approaches for the strategy formulation and implementation of financial and institutional mechanisms.

Regarding the overall energy efficiency target for 2030, the Romanian draft NECP proposes an objective of 36.7 Mtoe primary energy consumption, equivalent to a 37.5% reduction. To achieve this target Romania needs to approve new renewable energy support schemes focusing on local and community projects, and to scale up and diversify investments in energy efficiency. Targets for 2050 will be related to deep renovation or NzEB level.

The strategy outline proposes a range of renovation processes including a role of municipalities to nominate high priority buildings to be renovated (which are typically the oldest, most dilapidated and least efficient). As to strategic principles the outline states that buildings should be renovated based on priority and need, starting from buildings consuming highest amount of energy. Municipalities (and relevant Ministries with decentralized public buildings) should make lists of most energy consuming buildings and propose owners to initiate renovation from the resources of the programs supported by the state and municipalities. Targeted information on renovation potential costs and benefits and possibilities to access for financing should be distributed to building owners.

As to financing the strategy proposes a shift to revolving mechanisms for public buildings (with small grant component) and introduction of declining grant for residential buildings (less than 100% grant).

EUKI project “Our Buildings” - local renovation strategy for 5 local authorities in Romania

Camelia Rata, Brasov Energy Agency / Energy Cities Romania

The project ‘Our Buildings’, is supported by the European Climate Initiative (EUKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU),

The project aims at developing capacity and transfer knowledge enabling municipalities and civil society to integrate building renovation strategies in local and National Energy and Climate Plans, focusing on the target countries of the project, Bulgaria and Romania, which have similar building stocks, characterised by large run-down communist-era blocks and inefficient individual homes, contributing to air pollution and high CO2 emissions.

Thereby, the project will:

- enable the target groups to fulfil the Clean Energy Package requirements;
- create capacity to strengthen National Energy and Climate Plans (NECPs) and support effective governance; and
- train 50 national and local public officers and enable civil society and national stakeholders in 10 municipalities to proactively contribute to the NECPs and support the development of at least 10 municipal renovation strategies.

Mrs. Camelia Rata informed about the current status of the project and underlined that the key to developing the strategies are databases and monitoring of real energy consumption enabling proper technical and economic analysis of energy efficiency measures. Further it is important to coordinate with the sustainable local energy planning process.

Currently inventories of building stocks are carried out together with collection and registration of utility bills for the identification of final energy consumption. This will be followed by determining the energy performance of the public buildings, based on the final consumption of monitored energy.

[Presentation](#)

Main findings from the Romanian ESCO Working Group

Bogdan Anton, Expert - Energy Efficiency Department, ANRE

The Romanian ESCO working group representing various stakeholders, started its work in May 2018 as an initiative from the Department of Energy Efficiency within ANRE. The main objective of the ESCO WG is to achieve a draft Energy Services Contract (EnPC) harmonized with the market realities and with the current legislative context.

The activities have included

- Providing a discussion document reflecting the form of an Energy Performance Contract, harmonized with the Practitioner's Guide on the Statistical Treatment of Energy Performance Contracts, submitted by Eurostat and the EIB, on 8th May 2018

- Issuing an analysis from the accounting perspective over the energy performance service contract
- Analysis of the Eurostat and the EIB Guide on the statistical treatment of energy performance contracts
- Presentation to dissemination of a proposed scheme for accessing funds for the previous period of financing
- Discussions initiated with the representatives of the EIB, EBRD and JASPERS on the possibility of receiving technical assistance, respectively on how to access the existing financing lines for energy service projects

Barriers identified in the implementation of EnPC within the ESCO Working Group include:

- The legislative framework, including insufficient rules on public procurement
- Low and fluctuating energy prices
- Difficult access to funding
- Technical risks perceived as high
- General mistrust, based on the lack of standardization
- Market and partnership issues, e.g. lack of trust on the part of the beneficiaries and lack of functional partnerships between ESCO and sub-contractors
- Negative examples of failed projects

Considering international experience and EPC projects for public lighting systems, which are less complex, and which are related with relative high potential for energy savings (> 40%); the Working Group has decided in a first phase, to design an EnPC model for the rehabilitation of Public Lighting Systems.

A customized document for public lighting has been drawn up: "*Framework Contract for Design and Energy Performance Services for the Public Lighting System*" - currently under discussion in the Working Group. Based on the experience gained, the energy performance contracting model will be extrapolated for public buildings

[Presentation](#)

EPC Guide and ESCO access to finance

Robert Pernetta, European Investment Bank

Mr. Robert Pernetta presented the potential of the EPC market in the public sector, which is not exploited due to: Lack of information and awareness; Lack of trust and track record; Project development capacity of project promoters; Procurement process; Statistical treatment of EPC; Access to finance for EPC providers; Competition with investment grants.

He further presented challenges and opportunities in relation to the Eurostat Guide, and particularly in relation to using "off balance sheet" or "Maastricht neutral" preferential financing.

EUROSTAT has approved "Maastricht neutral" model contracts approved for Slovakia and Slovenia. Further, "Maastricht neutral" model contracts are in preparation or consulted with

national statistical offices in Austria, Czech Republic, Ireland, Lithuania, Poland, Spain and UK (Scotland),

He gave an overview of various barriers. These are related to budgetary rules which do not allow central government bodies to sign “Maastricht neutral EPC” and further that public authorities are not allowed to sign long-term service contracts.

The challenge of financing “Maastricht neutral” EPCs relates to shifting more risk to the private sector, a contract duration longer than 8 years and limits to using government financing or guarantees. Possible solutions are standardised templates and ESIF financial instruments, i.e. guarantees or forfeiting.

Presentation

The following discussion was to a high extent focused on the national long-term renovation strategy and particularly in relation to challenges connected with data availability and validity. Further on the role and capacity of local authorities in the renovation process. The EPC was mainly discussed in relation to the new EPC model contract for street lighting and the interaction with EIB.

Prior to the event there was some consultation between EIB and ANRE (ESCO Working Group) in relation to the EUROSTAT guide, i.e. in relation to integrating EU funds into accounting and financing mechanisms. This is reflected in the slides from ANRE in relation to the presentation referred to above.

At the end of the session the mayor of town Mizil, Mr. Silviu Calin Negraru (Mizil is a town with less than 20000 inhabitants) underlined the necessity of co-financing of buildings renovation (private or public) with important grants (EU funds, national budget funds or using ESCO). This kind of town in general has a lack of local funds and low purchase power among inhabitants.

As to conclusions please refer to the Executive Summary above.

Background

This working group focused on how to increase the renovation rates for public buildings, which is often limited by the capacity of public building owners to identify and implement energy efficiency projects. Energy performance contracting could be part of the solution, but the market needs to be developed and structured.

In principle, energy efficiency investments in public buildings share many of the benefits of commercial buildings (size, energy intensity, concentrated ownership, professionalized facilities managers) but face additional challenges of more cumbersome procurement procedures, potential split incentives between different divisions responsible for procurement and for the energy bills, balance sheet restrictions and limitations under public accounting rules.

The public conference included presentations on energy legislation for [EPC in Portugal](#) and examples of energy efficiency renovation through one stop shop facilities exemplified by [Rhodoshop, Bulgaria](#), and the [Bulgarian Energy Efficiency Fund](#).

The public event emphasized the need for an adequate legislative framework for EPC projects, and a need to adapt the procedures for procurement. The public event also highlighted the point of view of the Romanian ESCOs, who are feeling that they are lacking behind in terms of particularly the legal framework and which is the first steppingstone to develop the market for ESCOs.

Recommendations from the First Roundtable:

- There is a need to review and strengthen the legal framework; ANRE is leading a working group on this which needs to tackle a very large set of regulations. Four specific points for review were mentioned: Public procurement, Ownership of assets, Energy audits, Certification of ESCO companies
- There is a need for county level expertise on energy management and project development in order to remedy the lack of capacity of small local authorities (with less than 20,000 inhabitants)
- There is a need for guarantees for ESCO's in order to address their weak financial capacity
- There is a need to find a way to combine EPC and ERDF as currently the competition between them is counter-productive and prevents the EPC market from developing
- Regarding the accounting of EPC off balance sheet, there could be a compliance check of contracts by an entity (which could be a Guarantee Fund that could provide guarantees for companies of ESCO type during the ESCO contracts with public authorities), as the national statistical authority cannot be expected to do this
- There is a need to consider energy price variations (allow adjustments of price in the distribution contract thereby distributing risks), and the change from consumer to prosumer.

Key questions

Based on the conclusions from the first roundtable, the second roundtable aimed at providing concrete recommendations and suggest next steps in relation to the key questions below. This also addresses the National long term renovation strategy ([art. 2a of the revised EPBD](#)). The EPBD includes an obligation for member states to facilitate access to appropriate mechanisms for aggregation of projects, the reduction of perceived risks of energy efficiency, use of public funding to leverage additional private-sector investment, guiding investments, and providing accessible and transparent advisory tools.

- 3.1. What are the needs of public building owners in Romania when it comes to supporting them in their energy renovation projects and seen in relation to the particularities of the various regions? *This will i.e. be seen in relation to the specific cases presented*
- 3.2. How can public building owners be assisted and who could deliver this assistance? How could county level expertise on energy management support smaller local authorities?
- 3.3. What kind of financial instruments are most suitable for energy renovation projects in public buildings? How can we shift from grant-based support to financial instruments (project aggregation, one-stop-shops, standardisation measures etc.)?

- 3.4. Could public funding be allocated in the form of project development assistance, which has a higher leverage factor than investment grants/public loans? How to improve access to ELENA and H2020 PDA funding?
- 3.5. How do we ensure synergy with the National long term renovation strategy ([art. 2a of the revised EPBD](#)) and regional and local strategic plans?
- 3.6. What is needed to upscale the market for energy performance contracting, including improving the legislative framework as suggested at the first roundtable? How can access to finance for ESCOs be improved?

CLOSING PLENARY

Moderator: Gabriel Avăcăriței, Chief Editor, Energynomics.ro

The outputs from the three in-depth topic groups were summarized by the rapporteurs as described above (see Executive Summary above).

Mr. Gabriel Avăcăriței drew some overall conclusions. He observed the need for more communication within all the discussed topics towards and among the various stakeholders to reach targets. He also noted the fragmented market along the value chain and regarding needs and types of end-users. One of the obvious solutions to aggregate and coordinate all this information is the One-Stop-Shop approach with a single point of entry.

Pau Garcia from DG Energy thanked the participants for a heated and constructive debate, which showed a will and a desire among stakeholders to act. He noted that the stakeholders are very committed around discussing the topics and identifying solutions. There is a continued challenge to put the ideas into practice.

