

EnPC/ESCO in Romania (public buildings and public lighting)

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Benefits of EnPC / ESCO

EBRD specific support in Romania:

- **Pilot project: Opening the market for ESCOs** (financed by GEF)
- **TA project: EE financing scheme in public buildings and public lighting** (EU financing under ROP 2007-2013, preparing the grant scheme to be financed under ROP 2014-2020)

EBRD EE Finance Facilities in Romania

Next steps

➤ **EU Directive 2012/27/EU**

- Defines and recommends the use of EnPC and financial instruments for EE
- MS should promote the development of ES market

➤ **Partnership Agreement and EU position**

- High priority for EE projects

➤ **Jaspers studies for EE programmes**

➤ **Relevant EU documents/studies**

- Guidance on EE in Public Buildings (EPEC)
- EC's report to the EU Parliament and Council - Financial Support for EE in buildings (18/04/2013)
- EC's Report/JRC – Financing the EE (May 2010)
- Energy Charter Protocol – EE in Public Buildings
- ECA Report – Cost-Effectiveness of Cohesion Policy investments in EE

- **Law no. 121/2014, transposing EU Directive 2012/27/EU** and repealing the former Government Ordinance no. 22/2008, **defines**:
- **Energy Performance Contract (EnPC)**: a contractual agreement between the beneficiary and the contractor of an energy efficiency improvement measure, verified and monitored throughout the contract, where investments in that measure are paid for in relation to a contractually agreed level of energy savings or other agreed terms regarding energy efficiency, such as cost savings. (art. 4, para. 12 in the Law no. 121/2014);
 - **Energy service provider**: a natural or legal person that delivers energy services or other energy efficiency improvement measures in the final customer's facility or premises (art. 4, para. 18 in the Law no. 121/2014);
 - **ESCO type 'energy service company'**: a natural or legal authorised person that delivers energy services and/or other energy efficiency improvement measures in a final user's facility or premises and accepts some degree of financial risk in so doing. The payment for the services delivered is based (either wholly or in part) on the achievement of energy efficiency improvements and on meeting other agreed performance criteria. (art. 4, para. 39 in the Law no. 121/2014).

➤ Market size - EE in public buildings and public lighting:

- €1.6 billion is the EE market potential (with €1.4 billion for public buildings and €0.2 billion for public lighting), estimated as part of the EBRD-led advisory work for the MRDPA (ROP 2014-2020).
- €0.5 billion is the potential for private sector co-financing. This represents the part of the investment which can be covered from energy savings within commercial payback periods of 5-7 years. (Note that the overall market potential includes “deep renovation” measures which are not all energy saving related e.g. structural works).
- €330 million is the estimated ERDF grant (EU funding) to be used in the upcoming ROP 2014-2020 for EE measures in public buildings and public lighting systems.

➤ Number of ESCOs in Romania – approx. 30; existing construction companies can associate with ESCOs or become ESCOs.

BENEFITS of EnPC/ESCO for public authorities



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- For public authorities, the benefits of implementing EE in public buildings and public lighting, by using EnPC/ESCOs, include:
- Efficiency services are based on a **guaranteed level of savings**
- Shifting **technical and/or economical risks** to the ESCO
- **Repayment from future energy cost savings**
- **Saving investment costs** through third-party financing
- A complete offer of energy efficiency services, including **design, installation, financing, maintenance and verification**
- Long-term increase of comfort level and property value.

EBRD specific support in Romania includes 2 assignments:

- **Pilot project: Opening the market for ESCOs** (financed by Global Environment Facility - GEF; started in 2011, on-going)

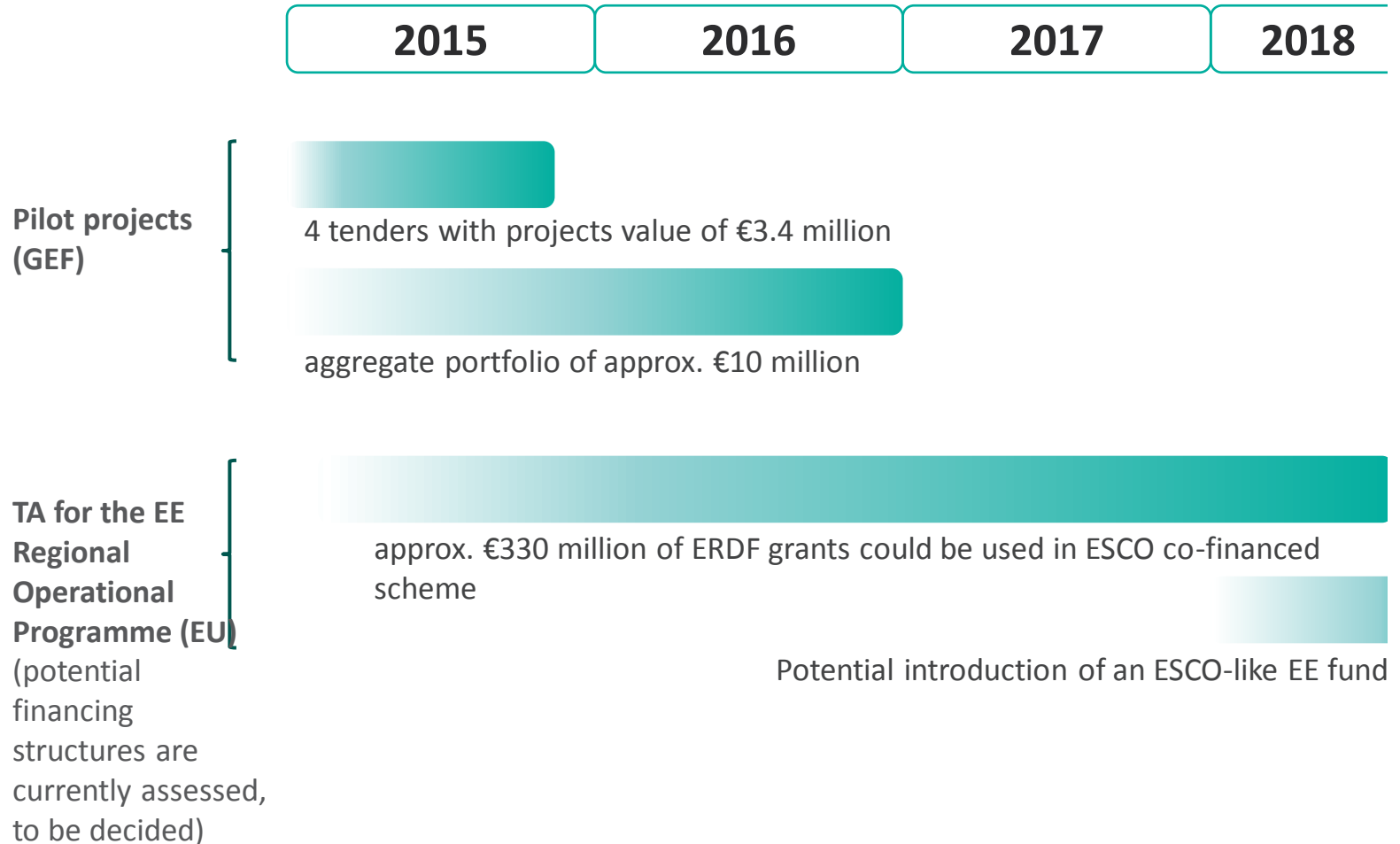
EBRD is currently supporting the development of the first ESCO-based pilot projects in **public buildings** in up to 10 municipalities, to confirm the viability of the concept and build capacity in advance of launching the relevant EE scheme under the ROP 2014-2020.

- **TA project: EE financing scheme in public buildings and public lighting** (financed by EU grants; started in July 2013, ended in October 2014)

Energy efficiency in **public buildings and public lighting** is a **Governmental priority**, included in the Regional Development Programme (ROP) under the next EU programming period. **EBRD has provided support to the Managing Authority for ROP**, regarding the EE scheme in public buildings and public lighting, to be financed under ROP 2014-2020.

EBRD specific support in ROMANIA

II



➤ Key Objectives:

- **Project origination effort** to scope pilot projects with participating municipalities via technical audits, drafting of technical and legal documentation to launch tenders, advice on city budgeting.
 - Phase 1 of the TA – developing EnPCs with a total value of €10 million within the next 2 years; currently, tenders for 4 projects are expected to be launched by Q1 2015;
 - Follow-up support to other municipalities to prepare and tender EnPCs, based on the documentation prepared for phase 1.
- **Regulatory support** to assess the enabling legal framework for public sector EnPCs, identify gaps and recommend changes to legislation to address them.
 - On-going consultations of legal experts vis-à-vis the classification and budgeting of municipal payments due under EnPCs;
 - Advice on applicable tendering procedures.

EBRD Pilot project (GEF)

II



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➤ The stakeholders signalled the following concerns:

- Relatively **new concept** for Romanian stakeholders
- Clear **legal and procedural framework**, including **EnPC** template
- **Banks** – the possible materialization of the technological risk implies that ESCOs, as borrowers, need to be strong enough to assume repayments; as such, commercial banks would only target large companies (few in the Romanian market) or would need support/**guarantees** to manage these risks, at least for an initial phase.
- **Municipalities** – the classification of energy cost savings of municipalities to be clarified whether they represent **public debt or not**.
- **ESCOs:**
 - the changes in assets' destination/ownership and changes in behaviour may affect **cash flows from savings**.
 - availability and cost of **long-term debt** to match EnPCs with long repayment profiles might be high.

➤ The EBRD is seeking to address concerns via:

- **Ongoing technical assistance and policy dialogue** - support to municipalities in tendering the first pilot projects and in creating awareness amongst ESCOs and banks.

This will help establish initial experience in implementing such projects in the municipal sector; this experience could be later replicated on a wider scale (in the context of the up-coming ROP).

- **The EnPC template developed for the pilot projects** via on-going consultations with ESCOs, municipalities and banks, will ensure:
 - an optimum division of risks between the municipalities and ESCOs;
 - procedures to calculate savings and to address disputes regarding savings;
 - potential for adaptation to specific building types and EE measures (or lighting systems).

EBRD Pilot project (GEF) IV

- EBRD provides technical assistance to support the preparation and tendering of **EnPC**.
- EnPC is not only recommended because it provides efficient leverage of public funds, but also because **ESCOs provide know-how, through turnkey energy efficiency solutions with guaranteed savings**.

- **Example of investments:**

	Hospital	Schools and kindergartens
Total investment needs	€ 716,760	1,037,600 €
Attractive for ESCOs to finance from own funds (undiscounted savings over 5 years)	50% - 56%	48% - 51%
Balance to be financed from City budget (undiscounted savings over 5 years)	50% - 44%	52% - 49%

➤ Current status of EBRD – ESCO Project

- **EnPC draft law** is under development
- **Pilot cities** have been selected
- **Building pools** have been analyzed (hospitals and kindergartens)
- **EnPC Contract** draft has been prepared
- Preparation of **EnPC tenders** is under way.

➤ EBRD support to MRDPA

In the Context of the Memorandum of Understanding signed between the Romanian Government and each IFI, in order to improve the absorption capacity and prepare the strategic projects for EU 2014-2020 programmes, EBRD provides support to the Ministry of Regional Development and Public Administration under the project:

- **TA project: EE in public buildings and public lighting** (financed by EU grants under ROP 2007-2013)

Objective:

- to support and assist the Ministry of Regional Development and Public Administration in preparing all the relevant sections of the ROP, in relation to an **investment scheme for Energy Efficiency in the Public Sector in Romania.**

➤ **Duration**: August 1st 2013 – October 31st 2014

➤ **The assignment included the following key tasks:**

Task 1 – An analysis of the current situation; rationale and strategic objectives; examples of best practices;

Task 2: An indicative list of eligible expenditures and identification of selection criteria; Proposal of an investment scheme and financial mechanism;

Task 3: Procurement guidelines; Monitoring procedures and methodology; Capacity building strategy.

➤ Recommendations:

Proposed scheme under ROP 2014-2020 - 2 options (A and B below):

A) Direct management by the Managing Authority for the ROP (MA); this is further broken down by 2 sub-options:

A1) **EE grant scheme, with ESCO/EnPC involvement;**

1a) EU/PA co-financing (guaranteed savings; the PA is co-financing the investments)

1b) **EU/ESCO co-financing (shared savings and co-financing by ESCO).**

A2) **EE traditional grant scheme** (replication of the Pilot scheme under ROP 2007-2013 for EE in residential buildings).

B) Delegated management to Fund Managers - the MA delegates to another entity (a 'Fund') the management of some tasks/a part of the available grants, or of the entire scheme/entire grants allocation.

➤ Recommendations:

Type of eligible measures - Rehabilitation of Public buildings

ECO 1: **Building envelope** (thermal insulation of walls, roofs, floors; replacing glazing or whole windows)

ECO 2: **Cooling and Ventilation systems & heat supply/network** within the building (Replacing, upgrading or improving the existing Cooling and Ventilation systems or Creating new and efficient Cooling and Ventilation systems; Replacing, upgrading or improving the efficiency of existing boilers; Replacing obsolete radiators; Installation of thermostatic valves; Insulation / renewal of piping)

ECO 3: **Lighting** (Replacing, upgrading or improving the existing lighting system; Replacing incandescent light bulbs with LED or CFL)

ECO 4: **Energy management systems** (Installation of monitoring and automatic control equipment for energy systems, including cooling, ventilation, heating, lighting).



➤ Recommendations:

Type of eligible measures - Rehabilitation and Extension of Public lighting systems

- Upgrading existing **light bulbs** with LED modern technology;
- Upgrading other **components of the luminary infrastructure** that would increase performance and efficiency or would be needed for new technologies;
- Introducing **Automated management systems** for accurate control of the lighting infrastructure.

➤ Recommendations:

Investment costs/unit

	Hospital	Administration and Education
Energy efficiency investment measures	114 Euro/sqm	101 Euro/sqm
Structural measures	50 Euro/sqm	10
Total	164 Euro/sqm	111 Euro/sqm

	Public lighting
Energy efficiency investment measures	6 Euro/W of installed LED

➤ Recommendations:

For buildings: fixing an amount of grant, expressed in Euro/m²

- Easy to determine the amount of public finance (grant) needed per type of building;
- Incentivizes ESCOs to innovate for achieving the highest savings, while staying financially competitive;
- Relies on the fair competition in the ESCO market;

Recommendation is to start with the buildings with the highest EE potential.

For public lighting: 40% flat rate grant allocation to any project, at the end of the investments, when energy efficiency improvements are demonstrated (similar to ROSEFF)



➤ Recommendations:

➤ Supporting instruments

- In the short term, introduction of a **Guarantee fund** in the form of **first loss reserve**, to be made available from the EU grants, in order to address the perception risk of the financiers/banks, aiming to open the private sector financing market;
 - In the medium term, introduction of a **Forfeiting Fund**, to be made available either by the commercial market or from EU grants, depending on the needs, in order to address the need for increasing financing capacity of ESCOs in a growing market.
- #### ➤ Technical assistance – scheme level TA and project level TA.

The EU/EBRD SME Energy Efficiency Finance Facility (**RoSEFF**) - ROMANIA I

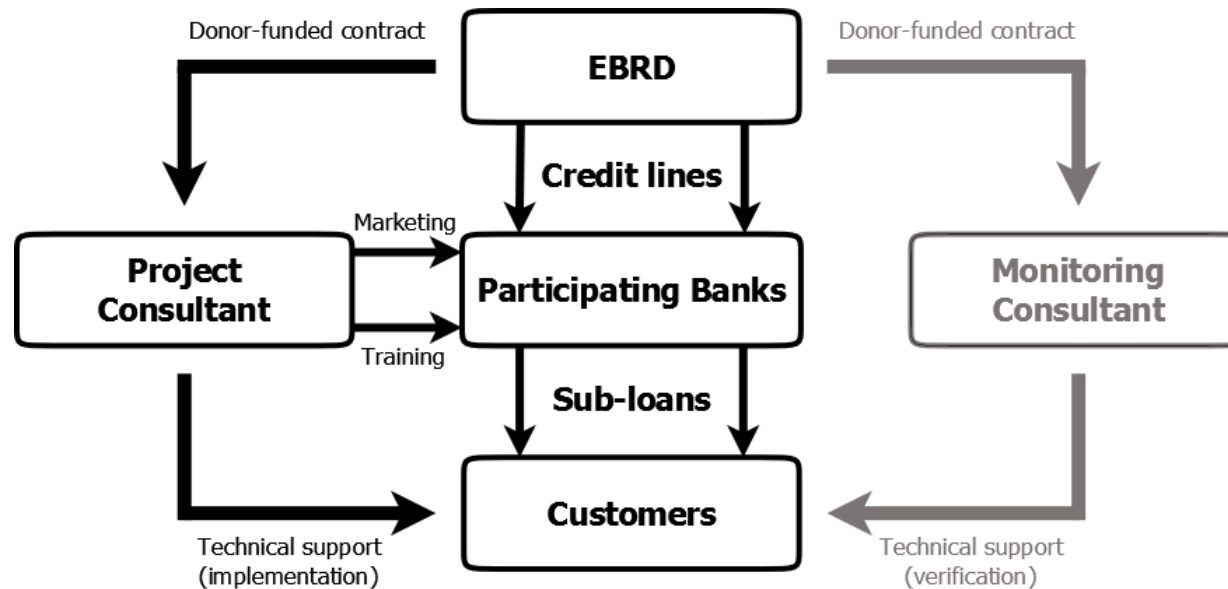
The **EBRD** developed the RoSEFF:

- a **framework operation of EUR 60 million**, which aims to provide **loans, supported by grants and technical assistance**, to Participating Financial Institutions (PFIs - local banks)
- PFIs on-lend to privately owned **SMEs**, to finance sustainable energy investments, including commercial energy efficiency and small scale renewable energy investments.
- the Facility is supported by up to **EUR 12.05 million grant** resources from the **European Union** for **technical assistance and financial incentives** to SMEs
- **ESCOs can use RoSEFF, if the end beneficiary is an SME**. ESCO companies can be eligible Sub-borrowers under the Facility.

EUR 1.13 bln. committed with 51 partner banks in 15 countries

The EU/EBRD SME Energy Efficiency Finance Facility (RoSEFF) - ROMANIA II

RoSEFF:



The eligible measures and equipment include: building renovation, lighting, boilers, burners, heaters, cogeneration, etc.

The EU/EBRD SME Energy Efficiency Finance Facility (RoSEFF) - ROMANIA III

- **Ultra-fast-track support for 'small and simple' investments**
 - Generate certificate of technical eligibility (AVIZ LEME) online in only 10 minutes
 - RoSEFF loans of up to 250 000 Euro from a choice of participating financial institutions
 - EU grants of 10% for one measure, or 15% for multiple measures.

- **Fast-track support for 'large or complex' investments of any size**
 - Free technical consultancy
 - RoSEFF loans of up to 1 million Euro from a choice of participating financial institutions
 - EU grants of 10% or 15%.

So far, 92 RoSEFF investments, representing 17.6 million Euro of lending, are under-way or complete in Romania.

The EU/EBRD Energy Efficiency Finance Facility

EEFF – ROMANIA

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EEFF is a **grant-supported credit line**, established by the European Commission and the EBRD. Its aim is to help fund **private sector energy-efficient investments** in Romania.

- A 'fast track' integrated package of **Loans - of up to 2.5 million Euros**, through participating banks:



- EU-financed **free Technical Consultancy** from Tractebel Engineering (GDF SUEZ)
 - Includes a Rational Energy Utilization Plan and an Energy Performance Certificate
 - **15% EU grants - up to 375,000 Euros per company**, paid when the investment is verified to be complete and operational.
- **So far, 52 projects were prepared, for a total value of 70,347,372 euros.**



Eligible investment categories are:

1. Industry and agriculture: investments that bring >20% energy savings
 - Boiler replacement or improvements (automation, economisers, burners, insulation)
 - Production line or process improvements (that save energy)
 - Steam distribution improvements (steam traps, condensate recovery)
 - Automation and control systems, Energy Management Systems
 - New machines, new equipment, new motors, new pumps...
2. Any company: investments in **buildings** that bring >30% energy savings
 - Improving energy efficiency in industrial buildings, offices, farm buildings, hotels etc
 - Insulation of walls and roofs, new windows, doors, lighting systems, boilers,
3. Any company: cogeneration to meet own power and heat needs*
 - (Or tri-generation to meet own power, heat and cooling needs)
 - So large **buildings** such as hotels and shopping centres may finance CHP with the EEFFCo-gen/tri-gen investments

NEXT STEPS



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GENERAL:

- *Clear procurement rules* – need to further clarify the applicable procurement procedure for the selection of ESCOs by the PAs
- *Clear procedures regarding ESCO classification* (art. 3, Law no. 121/2014)
- *Institutional framework* – cooperation between responsible ministries, agencies and authorities, regarding EE and EnPC/ESCO
- Clarification whether the amounts paid by PAs to ESCOs represent *public debt or not*.

SPECIFIC :

- *Launching, contracting and implementing* the projects under the **EBRD (GEF) assignment (pilot PAs)**
- *Launching* the **investment scheme for Energy Efficiency in the Public Sector in Romania, under ROP 2014-2020 (MRDPA)**.

THANK YOU

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