EIB’s technical and financial services for local energy efficiency projects

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Energy Efficiency Division
European Investment Bank

Energy Transition and Climate Adaptation – Local Strategies and Support Policies in Romania
Bucharest
7 November 2017
The EIB - the EU bank

- Natural financing partner for the EU institutions since 1958
- Around 90% of lending is within the EU
- Shareholders: 28 EU Member States
- Lending volume 2016: signed EUR 74.5 bn

Investing in Europe’s growth
EIB Energy Lending 2012-2016

- Signatures 2012-2016: EUR 62.7 bn
EIB EE Lending 2012-2016

EE Lending Breakdown per year

- Overall EE-lending increased by 3x since 2012
- 75% of EE-lending volume to Buildings
Needs and challenges of EE investments

- Poor information

- High transaction costs: fragmentation EE projects are combinations of multiple small size sub-projects

- **Split incentives** (e.g. tenants gain from lower bills while landlords pay for investment)

- **Subsidised** tariffs, reducing incentives to invest.

- Poor incentives for local banks to expand into a relatively new area of lending (**capital constraints**)

- Public authorities lack of **technical capacity**, incentives and frequently balance sheet to implement EE programmes
## EIB products available

<table>
<thead>
<tr>
<th>LENDING</th>
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<th>ADVISING</th>
</tr>
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</table>
| - Long term debt  
- Subordinated loans  
- Project finance  
- Equity type  
- Guarantee  
- Securitisation  
- Venture capital  
- Growth finance | ➢ Combining EIB finance with EU budget  
➢ (Project Bond Initiative)  
➢ Higher risk projects for innovation (InnovFin) | ✓ EIAH (European Investment Advisory Hub)  
✓ ELENA (European Local Energy Assistance)  
✓ EIB Smart Cities Initiative  
✓ JASPERS (Structural Funds assistance) |

**Specific tools:**  
- PF4EE  
- EFSI

Attracting FUNDING for long-term growth
## Example of Investment Loan

### Energy Efficiency in Bucharest Residential Buildings (Romania)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of buildings</th>
<th>Total cost (MEUR)</th>
<th>EIB loan (MEUR)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector 1</td>
<td>399</td>
<td>190</td>
<td>125</td>
<td>Completed</td>
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<tr>
<td>Sector 1 II</td>
<td>376</td>
<td>182</td>
<td>136.5</td>
<td>On-going</td>
</tr>
<tr>
<td>Sector 2</td>
<td>246</td>
<td>80</td>
<td>60</td>
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</tr>
<tr>
<td>Sector 2 II</td>
<td>95</td>
<td>29.5</td>
<td>22</td>
<td>On-going</td>
</tr>
<tr>
<td>Sector 4</td>
<td>116</td>
<td>36</td>
<td>27</td>
<td>Completed</td>
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<tr>
<td>Sector 4 II</td>
<td>140</td>
<td>56</td>
<td>42</td>
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<tr>
<td>Sector 6</td>
<td>256</td>
<td>147</td>
<td>70</td>
<td>Completed</td>
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<td>112</td>
<td>54.5</td>
<td>40</td>
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<td></td>
<td>1740</td>
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<td></td>
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# Future Potential EE Projects in Bucharest

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<th>BUCHAREST S5 ENERGY EFFICIENCY</th>
<th>EE in residential buildings</th>
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**Under Programme Authorization:**

| BUCHAREST S1 ENERGY EFFICIENCY | Various EE investments including public buildings, street lighting etc. |
| BUCHAREST S2 ENERGY EFFICIENCY | Various EE investments including public buildings, street lighting etc. |
| BUCHAREST S4 ENERGY EFFICIENCY | Municipality's plan – inter alia- includes improvement of EE of Public buildings |
| BUCHAREST S6 ENERGY EFFICIENCY | Energy retrofit of 11 existing schools and kindergartens + construction of 8 NZEB education facilities + EE residential |

**Potential TA through ELENA**
Example Loan Intermediation

Smart Cities financing through BELFIUS Bank (Belgium)

- Intermediated framework loan with Belfius Bank.
- Covers wide range of SMART investments and promoters in Belgium: Smart is not only for large cities!
- Support to investments in urban renewal, urban infrastructure, social and affordable housing, energy efficiency, renewable energy, sustainable transport, water, solid waste and ICT.
- Stimulates best practice: integrated approach, use of tested smart technology
- Relies on an intermediary bank with technical capacity and market reach in the municipal market.
Example Investment Fund

European Energy Efficiency Fund

- Investment areas: e.g. EE in public and private buildings, efficient cogeneration + district heating, decentralised RE, clean urban transport, modernisation of infra-structure like street lighting or smart grids;

- Project CAPEX: ~ 5 till 25 mEUR

- Beneficiaries: local/regional public authorities and public bodies, PPP, ESCO or SPV are possible

- Financing in form of: i.a. loans, guarantees, forfeiting schemes (to finance ESCO projects), equity shares

- Fund manager: Deutsche Bank; (www.eeef.eu)

- Project examples:
  - Biomass cogeneration plant supplying a DH network in Renne FR,
  - Public building refurbishment in Rhône-Alpes, FR
  - Street lighting in Venlo, NL
EIB’s technical and financial support for project development
Investment Plan for Europe

Mobilise EUR 315bn of additional financing
...through the European Fund for Strategic Investments (EFSI)

Support investment in the real economy
...through the **European Investment Advisory Hub** and the European Investment Project Portal

Create an investment friendly environment
...through improvements of the European regulatory environment
What is the Advisory Hub (EIAH)?

A joint initiative

A tool to strengthen Europe's investment environment and improve the quality of investment projects

A single access point to a comprehensive offer of advisory and technical assistance services

An instrument to assess and address unmet needs for advisory support

A cooperation platform to leverage and exchange expertise (National Points of Information, Managing Authorities for structural funds)
Purpose of Advisory Hub

- **Support for projects and investments**
  - Advisory and technical support in identification, prioritisation, preparation, structuring and implementation of investment projects

- **Enhance use of EU funds**
  - Advisory and capacity building support in the implementation of ESIF financial instruments

- **Improve access to finance**
  - Enhancing financing conditions and creating bankable propositions
Advisory Hub support available for (e.g.):

– Upstream project identification
  ➢ Providing guidance in technical feasibility and bankability of future investments, business plans etc.

– Project preparation
  ➢ Support to promoter on structuring and preparing bankable projects and designing investment platforms for aggregating projects

– Project implementation
  ➢ Support Project Implementation Units through consultants etc.
ELENA in short
European Local Energy Assistance

- EC-EIB cooperation to support public authorities and private entities to reach 20-20-20 targets
- Technical Assistance facility: managed by EIB; funded by EU budget (H2020 Programme)
- Project development support for energy efficiency; building integrated renewables; clean urban transport
- Market replication focus (min. investment EUR 30 m)
- Investment leverage required (ratio 20 for sustainable energy; 10 for clean urban transport; claw back possibility)
- 90% funding rate (grant)
- Budget allocation: still available; average EUR 15m per year
- First come, first served rule
European Local Energy Assistance - ELENA

**ELENA Technical Assistance**

Support for Local, regional or national entities for:

- Additional personnel
- Technical studies
- Preparation of calls for tender
- Financial structuring

**INVESTMENT PROGRAMME EE and RE**
in public and private buildings; public lighting and traffic light network; photovoltaics, heating/cooling systems;

**Efficient urban transport**
clean and energy-efficient road transport vehicles, trams, trolleybuses, metros, and trains; investments to improve public transport;

**Local energy facilities** that support EE/RE smart grids; infrastructure for recharging electrically powered vehicles; information and communications technologies.
ELENA Project Example

European Commission

ELENA funds

European Investment Bank

ELENA funded assistance

Municipality Project Implementation Unit

External expert Consultants

Project Development Support

Project

Project

Project

EE and PV in public buildings, EE in public lighting

European Investment Bank Group
ELENA case study : City of Ljubljana

- Beneficiary: City of Ljubljana, Slovenia
- Objective: implement a large investment programme improving energy performance of numerous public buildings through Energy Performance Contracting and Third Party Financing using ESCOs. Several tenders have been prepared and contracts signed for EE improvements in similar buildings and buildings with same EE technologies (e.g. lighting, PV or CHP)
- ELENA grant budget: EUR 1.35m
- Investment amount prepared: EUR 49.2m

ELENA support requested:
✓ Set up of an internal Project Implementation Unit
✓ Preparation of simplified energy audits and checking of the energy baseline for the selected buildings, tender documentation preparation, design of the EPC contracts, tender evaluation
✓ External assistance for legal and financial advice
Case study: Picardie Pass Renovation
EFSI plus ELENA

- Beneficiary: Regional Public Service Company for Energy Efficiency in Picardie, France
- Objective: energy efficiency renovations of private houses (as of December 2016, 290 ongoing building sites provide work to more than 400 local craftsmen and companies, at a cost of EUR 26.3m)
- Estimated investment programme cost: EUR 52m
- ELENA grant budget: EUR 1.8m
- EIB loan: EUR 23.5m

**ELENA support requested:**
- Development of a public service company for EE implementing an investment programme with private home owners
- External assistance to support each homeowner in the works implementation phase
- Cooperation with partners in view of promoting the service, identifying potential homeowners and preparing contracts
EIB Smart Cities Concept Brief

Investing for smarter city development

- EU Strategic Objectives
- EU Urban Agenda

Smart development of a city to achieve more sustainable cities and communities
EIB Smart Cities Approach – project examples

ENERGY
- Smart Metering
- Street Lighting
- Gas Distribution
- Smart Grid
- Renewable Energy

MOBILITY
- Alternative Fuel Vehicles / Infrastructure
- Intelligent Transport Systems
- Congestion and User Charging

BUILDINGS AND HOMES
- Efficient Buildings
- Efficient Homes
- Smart districts

WATER
- Water Distribution Management
- Stormwater Management

SOCIAL INFRASTRUCTURE
- Education, R&D, ICT
- Healthcare
- Social Care

Smart City Approach
Advisory support to define Smart City strategies

- Free consultancy for up to 8 cities/regions within the Visegrad countries (Czech Republic, Hungary, Poland and Slovakia).
- Support proposed include, but are not limited to, needs assessment, SWOT analysis, gap analysis, and project/programme identification.
Summary

- Energy efficiency investments are a priority for EIB
- Technical Assistance is still available to develop large scale EE programmes (e.g. ELENA and European Investment Advisory Hub)
- EIB financing is available for larger and smaller projects
- Further targeted financial products are under development (see EFSI and investment platforms)
- Significant non-technical barriers still exist
  - Standardisation including “deep refurbishment”
  - Financial performance of EE investments
  - Recognising “negative money flows” = cost savings
  - Investment decision path paved with “obstacles”
Thank you for your attention

Further information

EIB  www.eib.org

Advisory Hub  www.eib.org/eiah

ELENA facility  www.eib.org/elena
Thermal rehabilitation of residential
BUCHAREST – **Completed Projects**

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Nr of buildings renovated</td>
<td>399</td>
<td>116</td>
</tr>
<tr>
<td>Nr of apartments renovated</td>
<td>22,771</td>
<td>7,917</td>
</tr>
<tr>
<td>Total final cost (MEUR)</td>
<td>190</td>
<td>36</td>
</tr>
<tr>
<td>Area (m2)</td>
<td>2,000,000</td>
<td>650,000</td>
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<tr>
<td>Total energy savings (%)</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>Employment (person-years)</td>
<td>3,300</td>
<td>180</td>
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Thermal rehabilitation of residential
BUCHAREST – **Completed Projects**

<table>
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<th>Sector 6 (2011 -2015)</th>
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## Thermal rehabilitation of residential buildings

### BUCHAREST – On-going Projects

<table>
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<tr>
<th>Project</th>
<th>Sector</th>
<th>Number of buildings estimated</th>
<th>Total cost (MEUR)</th>
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<tbody>
<tr>
<td>Thermal rehabilitation of residential buildings</td>
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<td>376</td>
<td>182</td>
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<tr>
<td>Bucharest II</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td>969</td>
<td>402</td>
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<td>Sector</td>
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<th>Project Code</th>
<th>Description</th>
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**Under Programme Authorization:**

*Potential TA through ELENA*
What is fi – compass?

- fi-compass unique platform for advisory services:
  - financial instruments under the European Structural and Investment funds (ESIF) and
  - microfinance under the Programme for Employment and Social Innovation (EaSI)

- fi-compass is designed to support
  - ESIF managing authorities,
  - EaSI microfinance providers and other interested parties

- fi-compass provides
  - practical know-how
  - learning tools on financial instruments
  - “how-to” manuals, factsheets for quick reference, e-learning modules, face-to-face training seminars and networking events

- fi-compass is provided by the European Commission in partnership with the European Investment Bank

- [https://www.fi-compass.eu/](https://www.fi-compass.eu/)
ESIF – EFSI project: Lithuanian case study

Ministries of Finance and of Environment
contribution of circa EUR 175m from Operational Programme « Promotion of Cohesion 2007-2013 » and contribution of EUR 150m from 2014-2020 ESIF Operational Programme

Projects:
Eligible energy efficiency projects in multi-apartment buildings

Borrowers:
Individual owners of apartments in multi-apartment buildings / administrators of commonly used premises of multi-apartment buildings / municipal administrators

Contingent loans

2007-2013 JESSICA Holding Fund

2014-2020 Jessica II Fund of Funds

Oversee activity of funds

Investment Boards

Šiaulių Bankas
EUR 50m

Swedbank
EUR 20m

SEB

viPA

CPA

Housing and Energy Saving Agency (BETA)
Grant & Technical assistance

Oversee activity of funds

Repayments

Long term subsidised renovation loans

Repayments

2007-2013 and 2014-2020

2007-2013
Energy Efficiency Investment Loan

Navarra – NZEB social housing (Spain)

Challenge: Promote new building standards

Solution: Support to NZEBs

• 524 units with consumption of 20 kWh/m², (EPC : class A (~ passivhous))
• Expected energy savings of 2,300 MWh/y (75% reduction versus the baseline), corresponding to 748.8 ton/y CO2 savings
Example of Investment Loan

Energy Efficiency Private Housing (France)

• Refurbishment of residential buildings to reduce energy consumption by up to 75%

• One-stop shop, technical assistance, implementation and monitoring. Financial assistance provided directly by the promoters (tiers-financement) or through financial intermediaries

• Total project cost of EUR 800m. Average investment of EUR 20,000