Public sector energy efficiency

Can we initiate more projects?

Vienna, June 2016
Example of EBRD support of energy efficiency in street lighting and other public facilities: South Eastern Europe

- Programmed and managed by the EBRD
- Supported by the Energy Community
- Funded by the EU Western Balkans Investment Framework and the Western Balkans Joint Fund

Activity area

Policy dialogue support
To create effective legislations for public sector energy efficiency (EE)
- EE works & services procurement by preparing procurement law, contract templates and guidelines
- Transposition of ESCO elements of EU Directives 2006/32/EC and 2012/27/EU
- General policy dialogue

Technical assistance
To help local public authorities with procuring EE projects
- Identification of EE Projects
- Support municipalities in tender preparation and procurement

Financing
- Credit line through commercial banks (WeBSEFF) EUR 152m financed through 18 partner banks
- Direct financing (WeBSDFF) EUR 100m
Steps towards implementing a public sector energy efficiency project

1. Screening and identification of potential project
2. Municipality is informed about potential project
3. Follow up to estimate the potential, determine scope (input from municipality)
4. Getting political commitment of the municipality and the municipality taking ownership over the potential project
5. Technical proposal and feasibility accepted by municipality
6. Finalised technical proposal submitted to and approved by PPP-commission
7. Municipal assembly approval of project
8. Finalising tender document and contract
9. Tender publication by municipality
10. Contracting between municipality and contractor
11. Implementation by contractor

Taking stock:
Step 2: number of municipalities informed 72
SRB 28; BiH: 4; HR: 17; MNE: 23
Step 4: number of LoI 29
Step 8: number of tenders prepared 14
HR 7, SRB 5, BiH 2
Step 9: number of tenders published 4
HR 3 + 3 to be published in June; BiH 1
Step 11: number of projects with completed efficiency investments 3

Break down of investment volume:
Capex <EUR 1 m
18 projects
Capex EUR 1-5 m
4 projects
Capex EUR 5-10 m
3 projects
Capex >EUR 10m
1 project
Public Lighting in Novigrad – implemented project

**Implemented measures**

- Lighting design
- Demounting of old luminaires (High pressure Sodium / Metal halide/ Mercury)
- Installation of new LED luminaires
- Project documentation verified
- Technical inspection and Energy certification

**Economic data**

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<tr>
<td>Total number of light points</td>
<td>1,684</td>
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<td>Total energy consumption (street lighting)</td>
<td>762,244 kWh</td>
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<td>Light points modernised</td>
<td>954 (57%)</td>
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<td>Energy cost savings</td>
<td>33,062 EUR/year</td>
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<td>Maintenance savings</td>
<td>19,080 EUR/year</td>
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<td>EnPC contract period</td>
<td>98 months</td>
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<td>Total ESCO fee offered by the most preferred bidder</td>
<td>460,526 EUR</td>
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Modernisation:
57 % of Novigrad’s street lighting system was modernised with highly efficient LED luminaires

CO₂ emission:
New street lights achieve energy saving of 297,262 kWh/year and a reduction in CO₂ emissions of 112 tCO₂/year

Cost savings:
Annual energy costs reduced from EUR 58,160 to EUR 25,098

Installed Capacity:
The installed capacity decreased from 126 kW to 54 kW

Maintenance costs savings:
Maintenance costs could be substantially saved because exchange cycles could be extended significantly

Short contract duration:
Because of high energy savings and the long nominal lifetime a contract duration of 98 months (8,2 years) was possible
• **PROJECT:** District heating system powered by biomass with cogeneration (CHP), in the municipality of Sokolac, BiH
• **SCOPE OF THE PROJECT:** Reconstruction and expansion of district heating network, installation of cogeneration biomass plant and peak boiler
• **PLANNED POWER PLANT:** 1 MWel and 4,1 MWth, peak boiler 4 MW;
• **FUEL NEEDS:** 16,120 t/a of wood chips for cogeneration and 4,048 t/a of wood chips for the peak boilers;
• **EXISTING/PLANNED HEATED AREA:** 26,302 m2 / 131,592 m2;
• **ESTIMATED AMOUNT OF INVESTMENT:** 15,2 million KM;
• **MODEL OF FINANCING:** Public - Private Partnership (PPP);
• **LEVEL OF DEVELOPMENT:** Feasibility study with PPP comparator.
PPP biomas district heating project in Sokolac, BiH

Sokolac, Bosnia and Herzegovina: district heating system to be powered by biomass with cogeneration

26 Feb 2016

On Friday 26 February 2016 the European Bank for Reconstruction and Development (EBRD) hosted a workshop about the project "District heating system powered by biomass with combined heat and power (CHP or cogeneration), in the municipality of Sokolac". The project comprises the installation, management and maintenance of a cogeneration plant powered by biomass in the Sokolac Municipality. It also includes the extension, reconstruction, management and maintenance of the local district heating system. The project will use a public-private partnership (PPP) structure.

The workshop was held at the hotel Termag on Jahorina, some 30 km from Sarajevo. It introduced the project to more than 80 stakeholders including officials, guarantee the performance guarantees for heat and power efficiencies above 5% of the estimate. Every potential Private Partner needs to fulfil below stated conditions and to submit relevant proofs regarding:
Window 1: support for preparing energy efficiency projects

TC project preparation for ESCO projects:

- 3 street lighting projects implemented
- 1 tender ongoing
- 2 to be published in June
- 8 are ready to be tendered
- more tenders under preparation, including street lighting PPP Belgrade
- more municipalities indicated interest in projects

Policy dialogue

| Legislative support for EE Projects |

TC assignments

- Energy efficiency (EE) Project preparation
- Street lighting tenders prepared by REEP
- ESCO tenders under preparation by REEP
- Feasibility/scoping studies prepared by REEP
So the question is, can we initiate more energy efficiency projects?

Questions for discussion:

a) **Are there sufficient** economic, political or other **incentives for local authorities to prepare energy efficiency projects?**

b) **How could the central government provide more** top level political **support?** Is it worthwhile for e.g. mayors to initiate energy efficiency projects?

c) **REEP is identifying, scoping and preparing tenders for energy efficiency investments at local level. What else could be done in order to increase the number of initiated and tendered projects?**
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