Western Balkans
Regional Energy Efficiency Programme (REEP)

22nd Energy Efficiency Coordination Group Meeting
Vienna, 11 March 2020

The Programme is funded by EU IPA, the European Western Balkans Joint Fund and EBRD Shareholders Special Fund, and implemented by EBRD in cooperation with the Energy Community Secretariat.
Case study
Agenda

- REEP OVERVIEW
- PROGRESS UPDATE
**REEP Overview**

**Objective:** Sustainable Market for energy efficiency in the Western Balkans

### 1a ESCO Support
- Legislative support
- Technical project preparation

### 1b Policy Dialogue
- EED, EPBD legislation and strategic documents
- Policy implementation support

### 2 Intermediated Financing
- Credit lines to local banks for project finance
- For SME & public sector projects (small scale RE & EE)

### 3 Direct Financing
- Credit lines to local banks for project finance
- For residential sector projects

### 4 Direct Lending to Public Sector
- Project finance to States, cities, municipal companies
- For public building EE

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**Funding Overview**

- **REEP & REEP Plus Ext:**
  - €352 m project financing
  - €78.8 m EU grants
  - €19 m other grants

- **REEP & REEP Plus:**
  - €512 m project financing
  - €25.9 m EU grants
  - €25.9 m other grants

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**Other Grants:**
-€167 m project financing
-€20 m EU grants
-€8.1 m other grants

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**REEP & REEP Plus Ext**
- €49.4 m project financing
- €173 m EU grants
- €173 m other grants

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**WeBSEFF & KFW**
- Project finance to States, cities, municipal companies
- For public building EE

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**GEFF**
- Project finance to private sector (incl. ESCOs)
- For medium scale RE and EE
Activity update

1. **Policy support**: ESCO contract templates produced and shared with all WB6 countries and formally adopted in 4 countries

2. **Two feasibility studies** completed: Split Street Lighting (February 2020) and Vitez&Teslic biomass district heating project (January 2020);

3. **ESCO project preparation support** on-going in the region (2 consultancy contracts):
   a) **North Macedonia**
      a) 5 street lighting projects (contract value of approx. EUR 3.5 m) were prepared and tendered: Radovish, **Makedonska Kamenica**, Valandovo, Vasilevo, **Ceshinovo Obleshevo**. Two contracted.

      b) Additional 15 municipalities expressed interest in receiving support. Prioritisation/preparation of projects in progress.

      c) Ceremony event of signing the first EPC street lighting projects a the presence of the Ministry of Economy organized on 19th February 2020.

   b) **Serbia**
      a) 1 street lighting project prepared in Pirot. Tender to be launched in Q2 2020.

      b) Additional 4 municipalities expressed. On-going discussion on scoping/defining the projects.

   c) **Montenegro**
      a) Received interest from 3 municipalities. On-going discussion on scoping/defining projects
REEP / REEP Plus
ESCO Projects Preparation: Summary

**TECHNICAL ASSISTANCE FUNDS**

<table>
<thead>
<tr>
<th></th>
<th>Allocated</th>
<th>Remaining</th>
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<tbody>
<tr>
<td>ESCO policy</td>
<td>1,033,400</td>
<td>12,562</td>
</tr>
<tr>
<td>REEP ESCO project preparation</td>
<td>3,641,880</td>
<td>282,602</td>
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<tr>
<td>REEP Plus ESCO project preparation</td>
<td>1,000,000</td>
<td>431,170</td>
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<tr>
<td>Total</td>
<td>5,675,280</td>
<td>726,334</td>
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**NEXT STEPS**

- Complete current assignments
- Finalise detailed review of projects prepared over the past years
- Based on the study of the information above plan next steps accordingly
REEP/ REEP Plus
Window 1 - Policy assignments delivered

40 policy outputs delivered, 35 adopted/accepted by the relevant authorities;
8 policy assignments currently ongoing

Croatia (2013-2016)
1. EPBD: Inspections
2. EPBD: Software
3. EPBD: EPC registry
4. EED 7: Art.7 implementation

Bosnia and Herzegovina
5. RS/ EPBD: Inspections
6. RS/ EPBD: NCM
7. RS/ EPBD: EPC
8. RS/ EPBD: MEPS
10. Fed/ EPBD: EPC registry

Montenegro
12. EED 6: Procurement
13. EED 7: Art.7 implementation
14. EED 15: EE in transmission
15. Eco-design regulations (x7)
   • EED: NEEAP

Albania
16. EPBD: Primary law
17. EED: NEEAP
   • EPBD: 3 regulations
   • EED: Primary law

Serbia
18. EPBD: Inspections
19. EPBD: Alternatives to inspection
20. EED 6: Procurement
21. EED 7: Art.7 implementation
   • EPBD: 3 regulations

Kosovo
22. EPBD: Primary Law
23. EPBD: NCM
24. EPBD: EPC
25. EPBD: MEPS
26. EPBD: Inspections
27. EPBD: Software
   • EED: BRS
   • EED: Art 7 implementation

North Macedonia
28. EED/EPBD: Primary law
29. EPBD: Software
30. EPBD: Inspections
31. - 33. EPBD regulations (NCM, MEPS, EPC)
   • EPBD: 3 regulations
   • EED 7: Art.7 implementation
Adoptions and finalizations

- NMK EE Law: adopted by National Assembly
- Bosnia-RS: Beneficiary accepted EPBD deliverables:
  - Amended regulations: NCM, MEPS, EPC
  - Supplemental guidance documents
- Bosnia-Fed: Final training on EPC software for calculation and certification

Project milestones achieved

- ALB EE Law: Public consultation process concluded, final round of amendments addressed by REEP team
- ALB EPBD Regulations: Final workshop in Tirana
- KOS EED Art 7: Multi-stakeholder workshop on EEO and selected alternative measures
- KOS BRS: Second BRS draft submitted

New assignments

- NMK EPBD regulations: kicked off TOR drafting
- NMK EED Art 7 compliance: kicked off TOR drafting
<table>
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<tr>
<th><strong>REEP/ REEP Plus</strong></th>
<th><strong>Window 2 - Intermediated Financing</strong></th>
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<tbody>
<tr>
<td><strong>Eligible Countries</strong></td>
<td>WebSEFF II (EBRD)</td>
</tr>
<tr>
<td></td>
<td>6 Western Balkans (WB) countries &amp; Croatia</td>
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<tr>
<td><strong>Target sector</strong></td>
<td>Municipal, Corporates</td>
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<tr>
<td><strong>Financing to date</strong></td>
<td>EUR 107 mln (of which, EUR 62 mln in the WB countries)</td>
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<td><strong>Active Countries</strong></td>
<td>3 WB countries (BiH, NMK, Serbia) &amp; Croatia</td>
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<td><strong>No of PFIs</strong></td>
<td>9</td>
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<td><strong>Sub-Loans</strong></td>
<td>EUR 84.4 mln</td>
</tr>
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<td><strong>Avg. Sub-Loan Size</strong></td>
<td>EUR 253,567</td>
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<td><strong>No of Sub-projects</strong></td>
<td>333</td>
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<tr>
<td><strong>CO2 emission reductions</strong></td>
<td>124,629 t/year</td>
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<td><strong>Primary energy savings</strong></td>
<td>561,652 MWh/year</td>
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REEP
WebSEFF II: Municipal & Corporate Facility
Sub-Loan Portfolio

**EUR BY COUNTRY**

- **SERBIA**
  - 25,279,349
  - 30%
- **CROATIA**
  - 31,211,832
  - 37%
- **NORTH MACEDONIA**
  - 11,877,094
  - 14%
- **BOSNIA AND HERZEGOVINA**
  - 15,020,372
  - 18%

**EUR BY TYPE**

- **EE**
  - 73%
- **RE**
  - 27%

**EUR BY TECHNOLOGY**

- **Building insulation (general)**
  - 15,764,384
- **Other processing equipment**
  - 15,287,257
- **Biogas boiler / CHP**
  - 11,500,000
- **Supply vehicles (trucks)**
  - 10,365,413
- **Hydropower installations**
  - 8,116,988
- **Combined Heat and Power**
  - 7,000,000
- **Agricultural vehicles**
  - 4,550,060
- **Biomass boiler / CHP**
  - 2,092,035
- **Printing**
  - 1,914,000
- **Lighting (non-building)**
  - 1,501,757
- **Heat pumps**
  - 1,488,189
- **Conveyor transport**
  - 1,260,334
- **Boilers (non-renewable fuel)**
  - 736,554
- **Injection moulding**
  - 670,855
- **Space Heating**
  - 566,351
- **Solar photovoltaic systems**
  - 427,251
- **Heavy vehicles (construction)**
  - 55,000
- **Heat exchangers**
  - 55,000
- **Lighting**
  - 17,249

**Allocated Loan (€)**

- 63.4%
REEP Plus
WBGEFF: Residential Facility
Sub-Loan Portfolio

**EUR BY COUNTRY**

- **Kosovo**: 5,112,076 (26%)
- **Albania**: 89,544 (0% (0.46%)
- **Bosnia and Herzegovina**: 2,315,658 (12%)
- **North Macedonia**: 6,184,374 (35%)

**EUR BY TECHNOLOGY**

- **Windows**: 6,408,479
- **Insulation of walls**: 5,463,264
- **Heat pumps**: 3,124,058
- **Biomass boiler / CHP**: 3,115,357
- **Insulation of roof**: 334,872
- **Boilers (non-renewable fuel)**: 272,980
- **Solar water heater installation**: 188,022
- **Insulation of floor**: 174,209
- **Hot water cylinders**: 144,557
- **Solar photovoltaic systems**: 101,729
- **Air conditioning**: 28,007
- **Lighting**: 6,786
- **Refrigerator**: 5,040

**EUR BY TYPE**

- **RE**: 18%
- **EE**: 82%

Allocated Loan (€)
REEP Plus
WBGEFF: Residential Facility
Evolution of Sub-Loan Verification
REEP Plus
WBGEFF: Residential Facility
Sub-Loan Verification Per Month

Volume of loans per month Jun 2017 - Jan 2020

€10.4m
€1,920k

€6.8m
€1,200k

€0.3m
€50k

Albania  Bosnia  N Macedonia  Kosovo  Serbia
## REEP Plus
### WBGEFF Residential Facility – Implementation Update

- **New signing** (Dec 2019 – Feb 2020)
  - OTP Albania (new PFI)
  - 2\textsuperscript{nd} and 3\textsuperscript{rd} loans with Sparkasse Bank N Macedonia
- **First signing in Montenegro expected in 2Q/3Q 2020**
  - Due diligence completed

### First building-level sub-project in BiH
- Refurbishment and verification of the first multi-apartment building to be completed in March 2020.

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**Before**

![Before image]

**After**

![After image]
• Pilot project with Union Bank Albania
• local construction company is developing a new residential area in Tirana with around 1250 apartments named “Mangalem 21”
• GEFF participated in Phase 1 of the project with financing of EE technologies that meet GEFF eligibility criteria in new buildings for a total of EUR 226,289 (expected incentives EUR 45,258)
  o Innovative way to influence/raise building standards in the country and create a demand for high efficiency residential buildings
  o Implemented technologies: exterior walls insulation, roof / basement insulation, windows, doors, heat pumps, lighting
  o Expected energy savings compared to baseline: > at least 25%

• Mangalem 21 site plan
• The buildings of Mangalem 21 – phase 1 are marked in yellow.
REEP
Window 3 - Direct Financing to Private Sector

PROGRESS

• **6 projects financed** to date (3 SHPP, 1 biomass, 2 biogas), for a total of €25.9m

  → **no new projects since the previous SC meeting**

• **1 more project** approved for up to €6.0m (SHPP)

• **All projects** are operational, delivering renewable energy broadly in line with original estimates

RESULTS

• **21.2MW** installed, equivalent to the annual electricity needed by the street lighting systems of cities the size of Sarajevo, Tuzla and Mostar combined

• CO2 emissions saved: **325,974 tonnes/year**
REEP Plus and Extension
Window 4 - Direct Lending to Public Sector

EBRD ACTIVITIES / PIPELINE

• First transaction signed June 2018: A sovereign EBRD loan of EUR 10 million for EE retrofit of the Zenica Cantonal Hospital.

• Two municipal public building renovation programmes board approved and expected to be signed in Sarajevo and Pristina by Q2 2020 under REEP extension;

• On-going pipeline development under Window 4: 5 scoping studies were launched in Bosnia-Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia to support the identification, prioritisation and structuring of EE investments in public buildings;

• Demand exceeds the supply thus additional sources of funding (outside REEP) are being investigated by the EBRD for WB6.
Montenegro - Rehabilitation of public buildings – Phase III

Comprehensive refurbishment and new construction program incl. remote monitoring

- Investment loan – EUR 45 mln
- EU grant - ca. 5 mln

1) Focus on schools (also admin and social buildings)
2) New construction of a “Nearly-0-Energy building”
3) Energy Monitoring System

- EU approval: December 5, 2019
- Signing: December 13, 2019
- Q1 2019: Tender for Consultant

Source: Kiefer, Kynast
Macedonia - Rehabilitation of student dormitories - Phase I
Energy Efficient Rehabilitation of 7 Student Residences

• Investment loan - EUR 20 mln
• Investment grant from REEP+, ca. EUR 5 mln

• 7 residences in 4 cities
• 3177 students

• EU approval: December 5, 2019
• Signing. December 19, 2019
• Q1 2019: Tender for Consultant

Source: Kiefer, Kynast
Thank you

EBRD

• Remon Zakaria, Lead, Associate Director, Energy Efficiency and Climate Change
• Ana Bachurova, Associate, Energy Efficiency and Climate Change
• Veronika Spacapan, Principal, Energy Efficiency and Climate Change
• Yasuko Goto, Principal, Financial Institutions

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• Bodo Schmülling, Principal Project Manager, Energy and Mobility (LEa3), Southeast Europe, Turkey