

# REEP & REEP Plus update

Regional Energy Efficiency Programme for the Western Balkans

Funded by the European Union



In cooperation with the  
Energy Community Secretariat



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Vienna  
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<https://www.ebrd.com/news/video/preparing-zenica-hospital-for-the-future.html>

# Topics for discussion

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- **Overview** of Regional Energy Efficiency Programme (REEP) and its extension (REEP Plus) in the Western Balkans
- **Progress Update on Programme Windows**
  - Policy Dialogue & ESCO Support
  - Intermediated Financing
  - Direct Financing
  - Direct Lending to Municipalities
- **Donor Visibility**

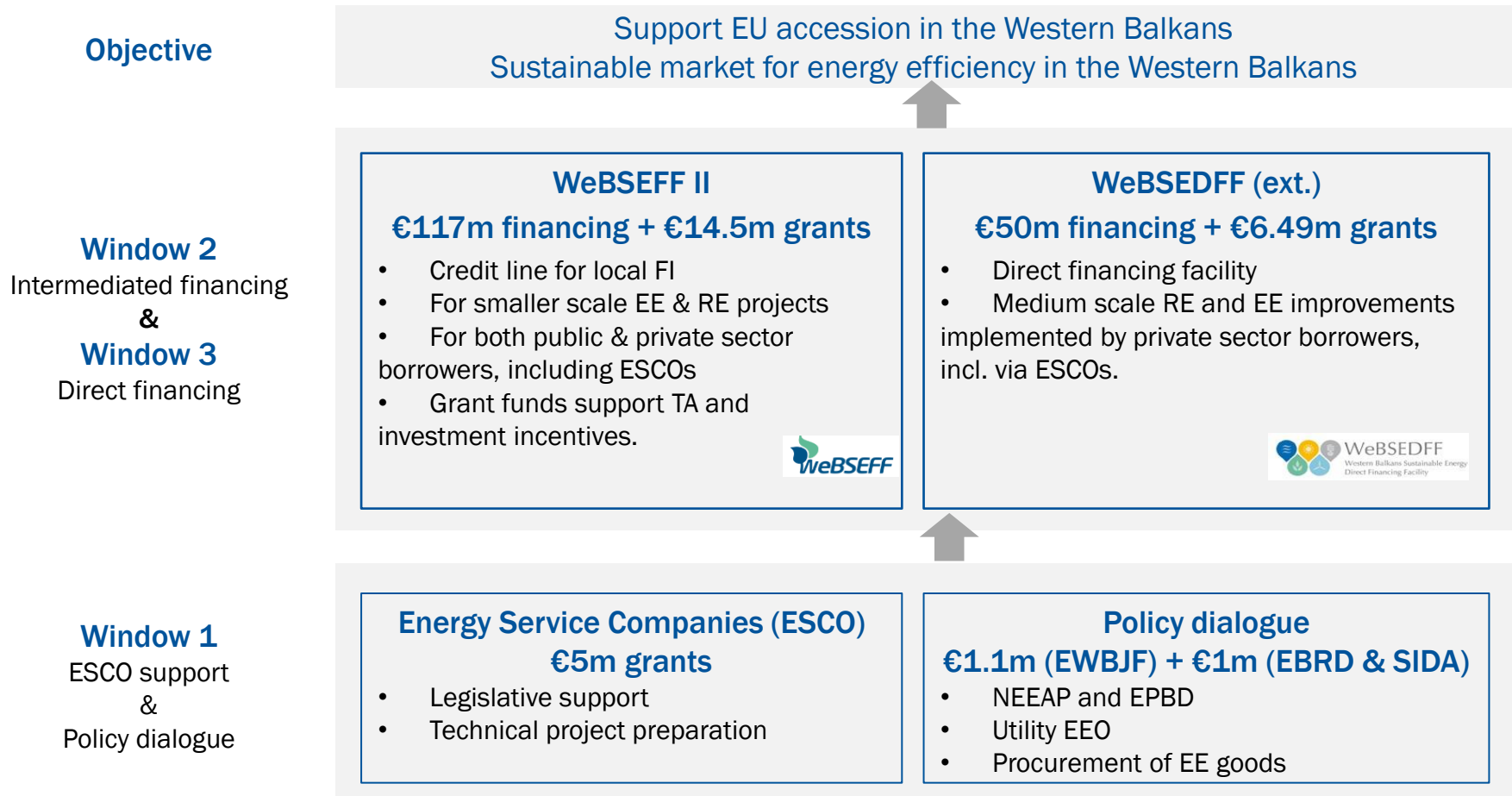
# Programme Structure



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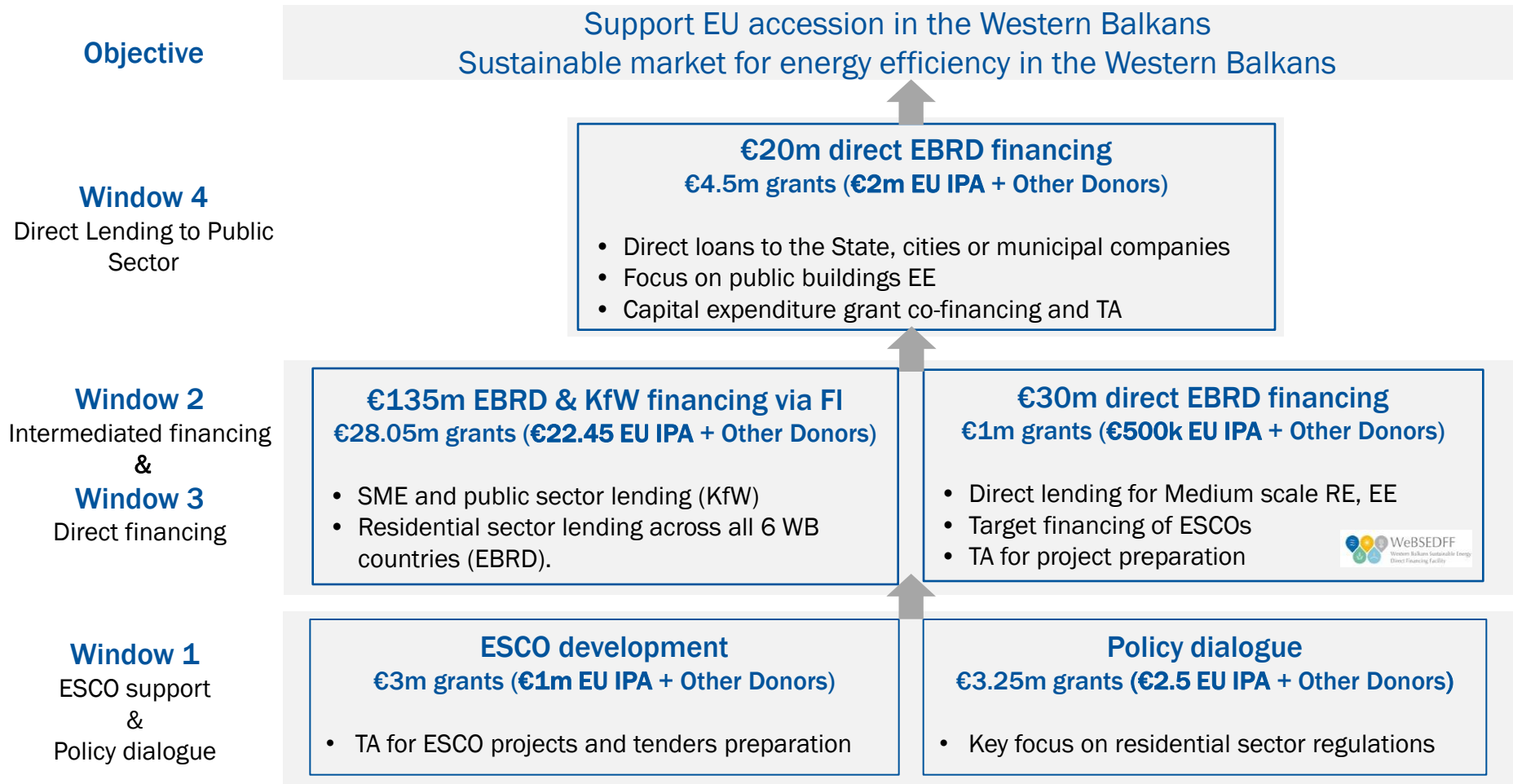
# REEP Structure (2013 – 2016)

REEP is an **integrated package** of **finance, technical assistance** and **policy dialogue**, implemented jointly with the **Energy Community Secretariat**



# REEP PLUS Structure (2017 – 2019)

REEP Plus is an **integrated package** of **finance**, **technical assistance** and **policy dialogue**, implemented jointly with the **Energy Community Secretariat**



Window 1

(a) ESCO Support; (b) Policy Dialogue



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# REEP Window 1 Overview

**At a glance:** 35 deliverables, including ESCO contract templates for 5 countries, and 28 policy outputs;  
28 accepted/ adopted, or likely to be adopted by Jan'2019

## Croatia

1. ESCO contract template
2. ESCO enabling legislation
3. EPBD: Inspections
4. EPBD: Calc. Software
5. EPBD: EPC registry specs
6. EED: Article 7 (EEO scheme)

## Bosnia and Herzegovina

7. Fed/ ESCO contract template
8. Fed/ EPBD: Calc. Software
9. Fed/ EPBD: EPC reg. specs
10. Fed/ EPBD: NCM
11. RS/ ESCO contract template
12. RS/ EPBD: Inspections

## Montenegro

13. ESCO contract template
14. EED 6: Procurement
15. EED 15: EE in transmission
16. EED 7: EEO secondary leg.

## Albania

17. EPBD: Primary Law
18. EED: NEEAP

## Serbia

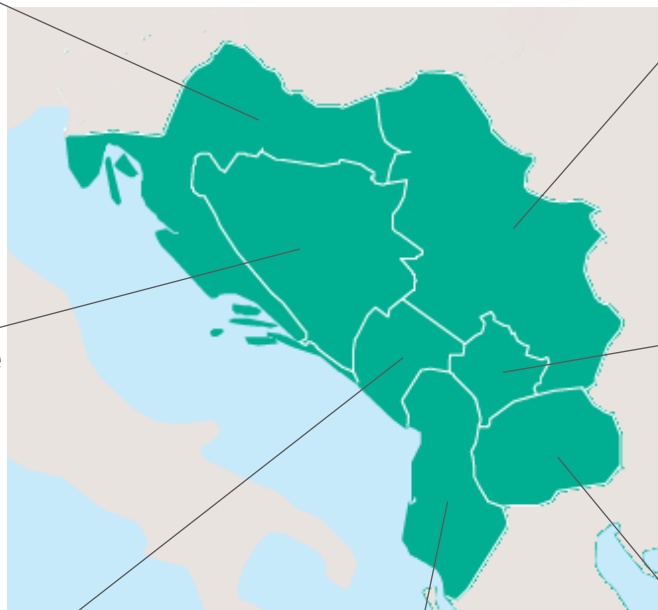
19. ESCO contract template
20. ESCO enabling legislation
21. EPBD: Inspections
22. EED 6: Procurement
23. EED 7: Policy notification
24. EPBD: Alternatives to heating inspection

## Kosovo

25. EPBD: Primary Law
26. EPBD: NCM
27. EPBD: EPC
28. EPBD: MEPS
29. EPBD: Inspections
30. EPBD: Calc. software

## FYR Macedonia

31. EPBD: MEPS
32. EPBD: NCM
33. EPBD: EPC
34. EPBD: Inspections
35. EPBD: Calc. software



€5 million for Window 1a (EU WBIF), €2 million for Window 1b (EU WBIF, SIDA, EBRD SSF)



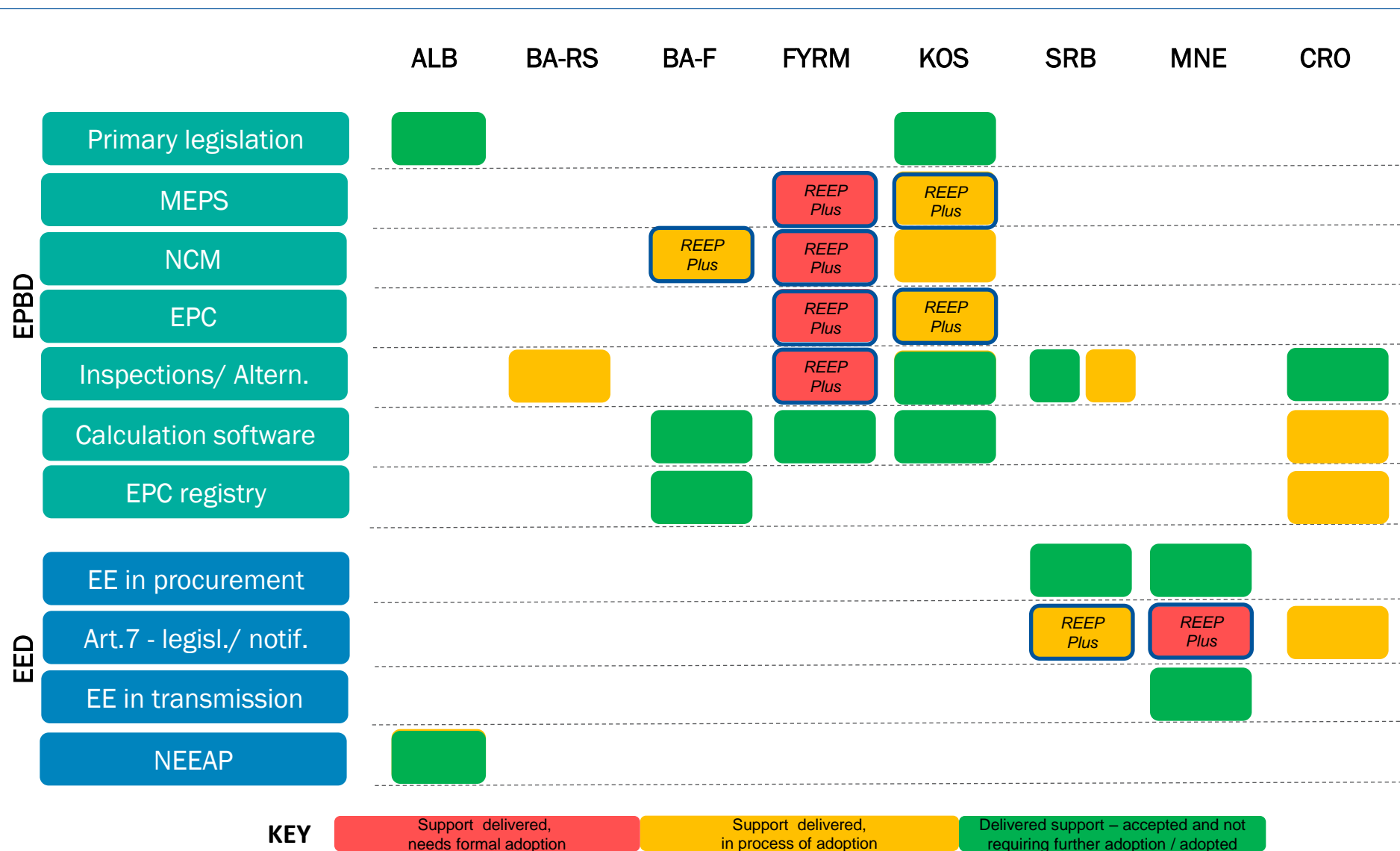


# Policy Deliverables under REEP (2013-2016)

## Themes and Adoption Status



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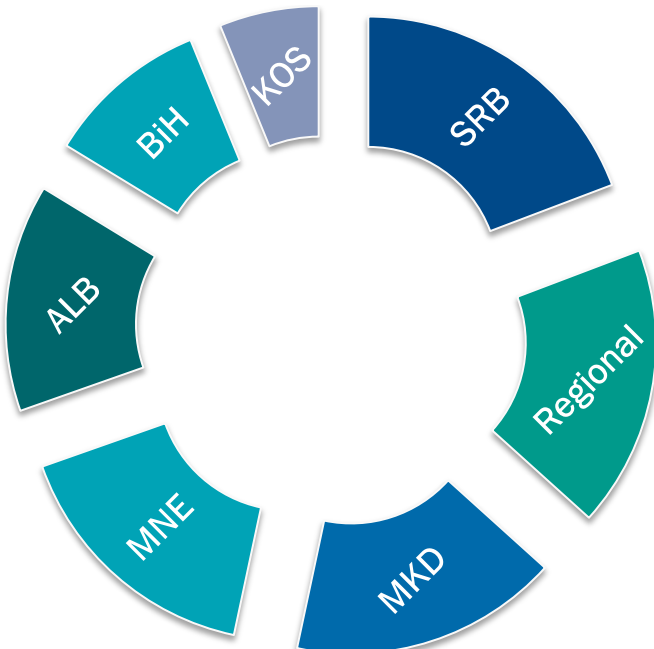
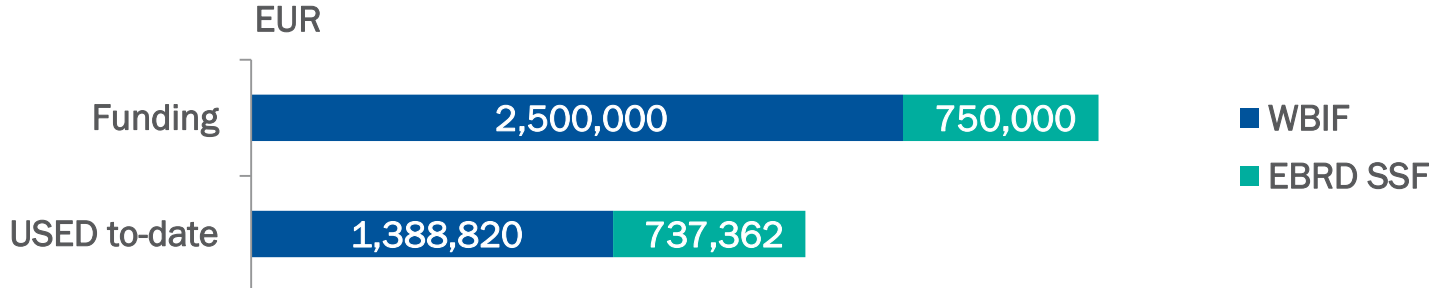
# REEP Plus policy assignments build on previous activities and target new policy areas

|                                   | ALB | BA-RS | BA-F        | FYRM | KOS         | SRB         | MNE         | Regional |
|-----------------------------------|-----|-------|-------------|------|-------------|-------------|-------------|----------|
| EE primary legisl. (EED, EPBD)    |     |       |             |      |             |             |             |          |
| EPBD regulations & software       |     |       | <i>Ext.</i> |      | <i>Ext.</i> | <i>Ext.</i> |             |          |
| Building renovation strategies    |     |       |             |      |             |             |             |          |
| nZEB plans                        |     |       |             |      |             |             |             |          |
| NEEAP / NECP                      |     |       |             |      |             |             |             |          |
| EE in procurement                 |     |       |             |      |             |             |             |          |
| EED Art.7 - legisl./ notification |     |       |             |      |             | <i>Ext.</i> |             |          |
| EE in heating and cooling         |     |       |             |      |             |             |             |          |
| EE in transmission                |     |       |             |      |             |             |             |          |
| Training energy auditors          |     |       |             |      |             |             |             |          |
| Eco-design & Labelling            |     |       |             |      |             |             | <i>Ext.</i> |          |

Completed/ Ongoing, completion by end-2018  
 Ongoing, expected completion by mid-2019 Scope of support under consideration

# Policy Assignments: Budget allocation

(as of end-OCT'2018)



# ESCO Market Development REEP / REEP Plus

## OBJECTIVE

- Increase public sector low-carbon investments by using private sector expertise and finance in ESCO projects
- Promote an enabling legislative environment for ESCO business models
- Provide technical support for project/tender preparation.

## ACTIVITIES AND RESULTS

- Legislative support, including
  - ✓ Primary and secondary legislation
  - ✓ Procurement, laws, taxation, budgeting
- Model ESCO contract templates
- Legal gap analyses
- Standardising public procurement and contracting documents and processes
- Project preparation support

## OUTCOMES

- Total potential capex of >€98m in public sector low-carbon investments
- Preparation of 43 street lighting projects, 4 building and 4 district heating projects



### Project preparation

- ☀️ Tendered, contracted or implemented
- 📍 Feasibility studies done
- 📌 Tenders under preparation

### ESCO policy work

Legal analysis and ESC, EnPC contract templates prepared for all Western Balkan countries.

# ESCO support continues under REEP Plus

## BACKGROUND

- **EUR 1 million** of technical assistance to support preparation of ESCO projects (additional to EUR 350k remaining funds)

## UPCOMING ACTIVITIES

- Deepening the ESCO market development
  - Reducing transaction costs during project preparation by supporting authorities to make approval processes efficient and clarify secondary legislation
- Broadening the ESCO market development
  - Mainstreaming/piloting newer project types (buildings, district heating and water)
  - Mainstreaming additional commercial concepts of energy supply contracting

# Window 2

## Intermediated Finance



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# WeBSEFF II - Results Update

## TOTAL ACHIEVEMENTS

|   |  |
|---|--|
| Countries   | Bosnia & Herzegovina, Croatia, FYR Macedonia, Serbia |
| Private Financial Institutions (PFI)s                   | 9 (2 BiH, 3 Croatia, 2 Serbia, 2 FYR Macedonia)      |
| Total financing available to PFIs                       | EUR 117 mln  |
| Total signed sub-loan amount to date                    | EUR 79.8 mln (additional EUR 0.3mln)                 |
| Total no. of sub-projects to date                       | 306 (additional 2 projects)                          |
| Current pipeline value                                  | EUR 5.16 mln / 9 Sub-projects                        |
| Total CO <sub>2</sub> savings                           | 117,339 t/year                                       |
| Total equivalent primary energy savings (MWh/y):        | 500,912 MWh/year                                     |
| - (which includes Renewable energy capacity added (MW): | 54 (MW)  |

## WeBSEFF II – Current status

- **90% of the funds under the existing facility (EUR 92 million) were utilised**, remaining amount unutilised mostly by one PFI in Croatia (~EUR 9 million); funds close to full utilisation in BiH, FYR Macedonia and Serbia
- **EUR 25 million** extended, of which EUR 15 million was signed in October 2018 with a repeating PFI in Serbia
- Almost **EUR 1m TC funds** remaining for disbursement of sub-loans (relating to generic tasks such as marketing, pipeline origination, preliminary eligibility, verification etc.)
- Current pipeline, primarily under the above mentioned credit line, stands at **EUR 5.16 million** for 9 Sub-projects, of which **3 new projects** for EUR 0.3m in the public sector (public lighting, waste collection modernisation)



# WeBSEFF II Case Study

## Agri-pellet combustion chambers in Backi Petrovac, Serbia

### CLIENT

Petrovec d.o.o. is a private company established in 2000 dealing with cultivation of crops (cereals, vegetable and fruits). The company also owns a plant for production of agri-pellets from wheat straw and other agricultural waste.

### PROJECT

- Two WeBSEFF II sub-loans
- Purchase and installation of agri-pellet furnace and two crop drying chambers
- Decreased energy cost, utilization of its own agricultural waste as biomass, improved product quality.

### FINANCIAL STRUCTURE

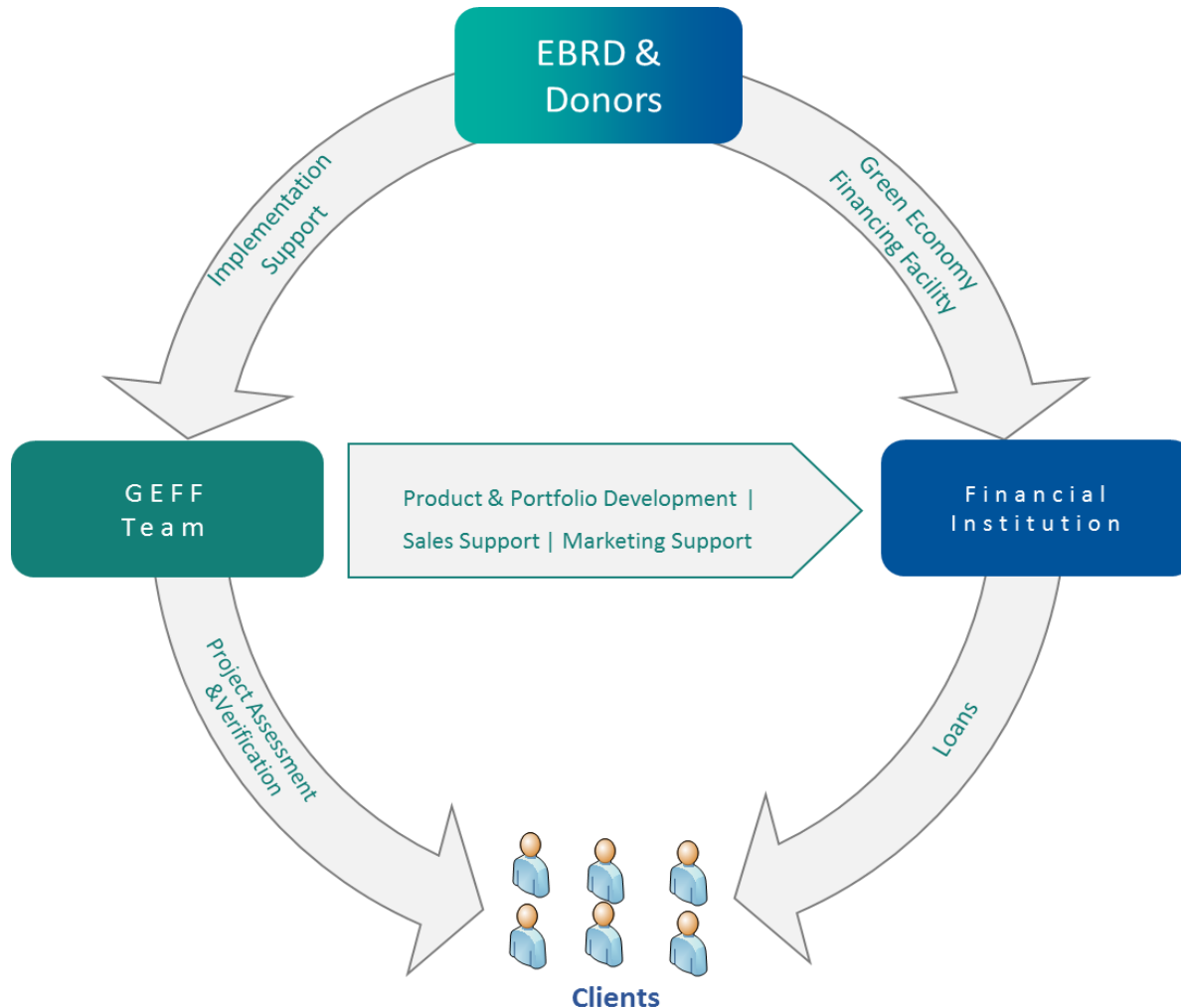
|                         |                     |
|-------------------------|---------------------|
| Total project cost/loan | €443,691/ € 360,000 |
| Incentive amount        | €36,000 (10%)       |



### EXPECTED IMPACT







- Annual savings: €255,600
- Payback period: 1.7 years
- CO<sub>2</sub> avoided emissions (t CO<sub>2</sub>/a): 2,760
- Primary energy savings (MWh/a): 14,280

# GEFF Residential – Model & Structure



- EUR 85m EBRD financing for residential EE investments across the WB6
- GEFF implementation supported by EU grants:
  - ✓ Investment Incentives (EUR 17.5mIn)
  - ✓ Technical Assistance (EUR 5.1mIn)

# Funding: Progress to November 2018

| Country              | Credit lines signed (#) |   | Signed (€m)  |   | Expected Signing in 2019 (€m) | Total (€m) |
|----------------------|-------------------------|---|--------------|---|-------------------------------|------------|
|                      | At June 2018            | At Nov 2018   | At June 2018 | At Nov 2018   |                               |            |
| Albania              | 0                       |  2           | 0.0          |  9.0           | 3.0                           | 12.0       |
| Bosnia & Herzegovina | 4                       | 4   | 22.0         | 22.0  | 0.0                           | 22.0       |
| FYR Macedonia        | 2                       | 2   | 4.0          | 4.0   | 6.0                           | 10.0       |
| Kosovo               | 3                       | 3   | 8.5          | 8.5   | 5.0                           | 13.5       |
| Montenegro           |                         |   |              |   | 2.0                           | 2.0        |
| Serbia               | 0                       |  2          | 0.0          |  10.0         | 15.5                          | 25.5       |
| <b>Total</b>         | <b>9</b>                |  <b>13</b> | <b>34.5</b>  |  <b>53.5</b> | <b>31.5</b>                   | <b>85</b>  |

- Total signing amount has reached **EUR 53.5 million** with **13 PFIs** by November 2018
- EBRD aims to sign all EUR 85 million with 16-18 PFIs by YE2019

# Impact: Progress to November 2018

| Key figures                                      |   |
|--|---|
| Countries  | 5 countries: Bosnia & Herzegovina, FYR Macedonia, Serbia, Kosovo, Albania |
| Total Financing provided to PFIs                 | EUR 53.5 million  |
| Total signed sub-loan amount                     | EUR 4.01 million  |
| Total no. of sub-projects                        | 791   |
| Average sub-loan amount                          | EUR 5,075   |
| Total GHG emissions avoided                      | 1,411 t/year  |
| Total equivalent primary energy savings (MWh/y): | 4,091 MWh/year  |

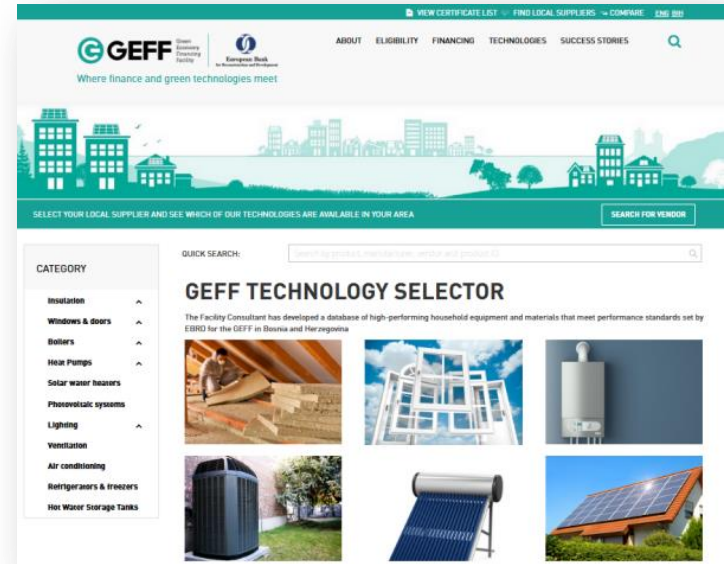
# Implementation Deliverables (Technical Assistance)

**GEFF Technology Selector** (online platform of GEFF eligible technologies) launched in 5 countries and available **on local GEFF websites**, supporting the PFI lending process:

Total number of products available: ~7,000

Total number of suppliers: 3,525

**Regional hubs:** Two regional hub offices established, Belgrade and Tirana



**Capacity building to PFIs:** trained 1,100 loan officers in 11 PFIs



# Awareness raising & Donor visibility

**Participation in fairs:** Sfera fair (Mostar) and Enefa fair (Sarajevo); Renexpo (Belgrade); Green festival (Pristina); Build & Construction Fair (Skopje); Energy Expo & Forum Fair (Tirana)



## GEFF launch events

Sarajevo (November 2017)

Pristina (March 2018)

Skopje (April 2018)

Belgrade (September 2018)



**GEFF marketing campaigns** following the launch events, including billboards, digital campaigns, TV and radio appearances





# Awareness raising & Donor visibility (cont'd)

## Vendor workshops and seminars:

Vendor event in cooperation with “Velux” (Sarajevo); Vendor seminar (Prishtina); Kosovo Sustainable Development Week (Pristina); Series of Educational Events on EE in cooperation with Sparkasse bank for vendors and sub-borrowers (various locations in Macedonia)



**GEFF** Green Economy Financing Facility | European Bank for Reconstruction and Development

ABOUT | ELIGIBILITY | FINANCING | TECHNOLOGIES | SUCCESS STORIES

Where finance and green technologies meet

### Bosnian family saves money and energy with new heating technology

- Investor**  
Family house – Lalović Family
- Location**  
East Sarajevo, Bosnia and Herzegovina
- Investment**  
Biomass / Pellet boiler
- Investment Size**  
€1,360
- Financial results**  
2-year return, 30% cost savings per year
- Energy savings**  
1,06 MWh per year
- CO2 savings**  
0,41 tonnes per year
- Impact**  
Energy and cost savings, simple to use, increased comfort in the home
- Donor**  
EU, Austria, WBIF

**A GEFF loan has helped a family in Bosnia and Herzegovina create a warmer home and switch to a modern heating technology that will reduce their energy bills and support more comfortable living during the winter months.**

Bojana Lalović lives with her husband and 10-year-old daughter in a 140 m<sup>2</sup> house that was built a decade ago. Before applying for a GEFF loan, Lalović family burned wood and coal to heat their home. Last winter they decided to replace it with a new biomass boiler (Commo 21 pellet boiler), which includes a water boiler and is connected to the central heating system within the house. The new pellet boiler is significantly more energy efficient than the previous heating system.

The GEFF Team conducted an analysis of the biomass boiler, estimated its potential to save energy and assessed its financial and technical parameters, as well as its profitability.

The family invested €1,360 in the new heating system and received an incentive of around €200 by the EU. The resulting reduction in energy consumption is expected to be around 1.06 MWh per year, with CO<sub>2</sub> emissions reductions of almost half a tonne per year. The family will be able to repay the investment from energy cost savings in 2 years, while also generating additional income to the household for the years to come.

Apart from keeping their home warm, the Lalović family now has more disposable income resulting from reduced heating costs. The market value of the house is increased as well, and the house looks more attractive now.

"We are very satisfied with the new technology. Our home is warmer and feels cosy. We are also enjoying significant cost savings of up to 30% per year. The system takes much less time to maintain and to use," said Bojana Lalović.

The Green Economy Financing Facility (GEFF) in the Western Balkans is developed by the European Bank for Reconstruction and Development (EBRD), supported by the European Union (EU), the Austrian Federal Ministry of Finance (BMF) and the Western Balkans Investment Framework (WBIF) and in cooperation with the Energy Community Secretariat.

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Supported by:

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**Case studies :** first three success stories published on GEFF BiH website <https://youtu.be/e9XiRZ2YaaY>

## Window 2: Intermediated Financing KfW

Loan Agreements signed until December 2017

| REEP plus<br>SME sector   |                                 |
|---|---------------------------------|
| Countries   | Bosnia & Herzegovina and Serbia |
| Number of PFIs  | 2 PFIs (1 BiH and 1 Serbia )    |
| Total Financing provided to PFIs  | EUR 16 mln                      |
| Total signed sub-loan amount to date  | 114.913 EUR                     |
| Total no. of sub-projects to date   | 36                              |
| Total GHG emissions savings   | 892 t / year                    |
| Total equivalent primary energy savings (MWh/y):<br>- (which includes Renewable energy capacity added (MW): | 280 MWh / year                  |



## Window 2: Intermediated Financing KfW

Loan Agreements to be signed in December 2018

| REEP plus<br>SME sector   |                     |
|---|---------------------|
| Country   | Serbia              |
| Number of PFIs  | 2 PFIs              |
| Total Financing available to PFIs   | EUR 34 mln          |
| Total signed sub-loan amount to date  | none                |
| Total no. of sub-projects to date   | none                |
| Total CO <sub>2</sub> savings   | Too early to report |
| Total equivalent primary energy savings (MWh/y):<br>- (which includes Renewable energy capacity added (MW): | Too early to report |

# Window 3

## Direct Financing



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## FINANCIAL STRUCTURE

|                       |        |
|-----------------------|--------|
| Direct finance        | €50m   |
| Incentives            | €4.24m |
| Technical cooperation | €2.25m |

## PROGRESS

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

## ISSUES

- Continuing challenges with identifying suitable ESCO projects for financing

# Direct Financing (REEP Plus)

## BACKGROUND

- **EUR 20-30 million** EBRD financing for up to 12 projects, without grant co-financing
- To be utilized for direct loans to developers of renewable energy projects, as well as ESCOs and possibly industrial energy efficiency projects
- The REEP Plus funding will be used for covering due diligence and other finance preparation costs (on a cost sharing basis)

## PROGRESS TO OCTOBER 2018

- First project identified – a wind farm in Kosovo of 32 MW (financing parameters to be determined), REEP Plus funding will be used to support the technical due diligence

## UPCOMING ACTIVITIES

- Identification of other potential projects for financing and development of a pipeline will take place over the next 12-24 months

# Window 4

## Direct Lending to Public Sector



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# Direct Lending to Public Sector

## BACKGROUND

- **EUR 20 million** EBRD financing for up to 4 projects, with **EUR 2 million** grant co-financing available (ca. 10% grant)
- To be utilized for direct loans to states, cities or municipal companies to improve EE in public buildings (i.e. schools, hospitals, government buildings)

## PROGRESS TO OCTOBER 2018

- **First transaction signed June 2018:** A sovereign EBRD loan of EUR 10 million for EE retrofit of the Zenica Cantonal Hospital.
- The loan is accompanied with a EUR 1 million investment grant (WBIF) and EUR 200k for project preparation and procurement support.
- Zenica is among the most polluted cities in Bosnia, and the hospital second largest polluter.
- The project will result in reduction of energy consumption by 60% and heating demand by 44%.



# Direct Lending to Public Sector

## CURRENT EBRD-PIPELINE / PREPARATORY ACTIVITIES

- On-going pipeline development under Window 4 (REEP Plus); in 2019 we are expecting to sign a new loan under window 4 which will utilise the full remaining amount;

## REEP EVOLUTION

- The EBRD is having active discussions in Kosovo and Bosnia to prepare public buildings EE investments;
- Targeted public buildings are in the municipal, educational, administrative, health sectors;
- Scoping studies will be launched to support the structuring and prioritisation EE investments;
- Demand exceeds the supply thus additional sources of funding (outside REEP) are being investigated by the EBRD for WB6.

# Direct Lending to Public Sector

## Current KfW-Pipeline / preparatory activities

- In active discussions with all 6 Western Balkan Contracting Parties.
- Mixture of scaling up existing programs and new programs
- Targeted public buildings in the educational, administrative, health and social sector
- Demand exceeds the supply (reduction from originally 25m to 15m EUR)
- Most advanced/ prepared programs in Albania, Serbia and Montenegro
- Standardized Energy Audits partly existing
- For cross-country comparisons, unified calculation methodology and approach applied (room for coordination of promoted approaches across the Balkans)
- Cooperation with Fraunhofer Institute for Building Physics
- Showcases planed to promote “exemplary role of the public sector” (e.g. energy plus, passive house, building automation systems, deployment of RE etc.)



# Donor Visibility



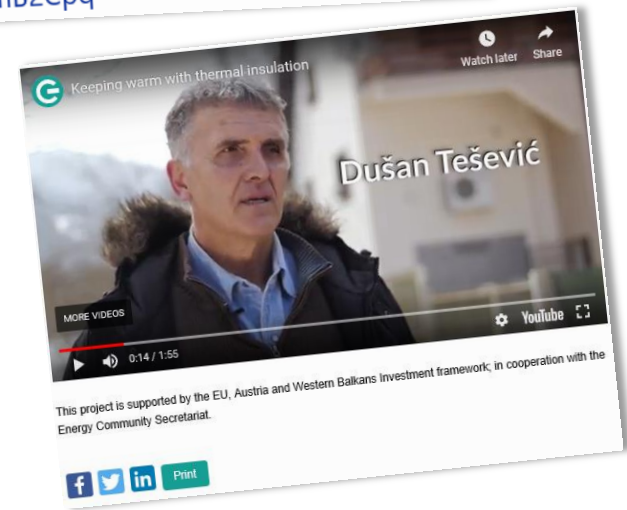
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# EU Visibility and Communications

- **Launch events/press:** four countries + announcements (press/social media etc)
- **Various videos:** tell human story and impact
  - Zenica video: 122,000 views
- **New colleague:** for EU-funded activities (REEP, infrastructure, etc.) in WB
- **Continuous promotion:** features, photo/AV material, social media, events, etc.



We're supporting investments in #EnergyEfficient technologies in #Kosovo. With @EU\_near, #Austria and #WBIF [bit.ly/2mB2Cpq](https://bit.ly/2mB2Cpq)



# Thank you

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