

Western Balkans Regional Energy Efficiency Programme (REEP)

EECG meeting, Vienna
10 March 2016



This project is funded by
the European Union

The Programme is
funded by EU IPA and
the European Western
Balkans Joint Fund, and
implemented by EBRD
in cooperation with the
Energy Community
Secretariat



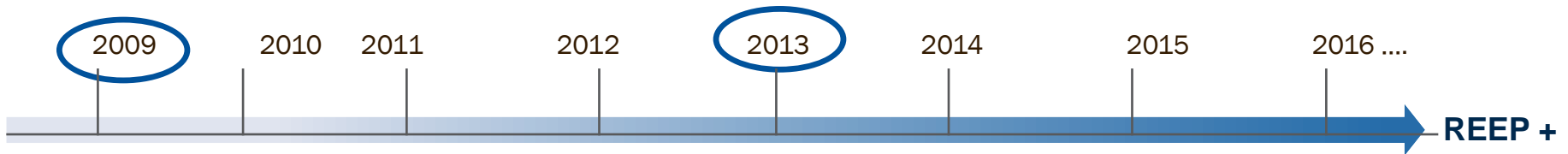
European Bank
for Reconstruction and Development



Contents

- **Emergence & Overview** of Regional Energy Efficiency Programme (REEP) in the Western Balkans
- **Finance**
 - Western Balkans Sustainable Energy Finance Facility (WeBSEFF)
 - Western Balkans Sustainable Energy Direct Financing Facility (WeBSEDF)
- **Policy dialogue** and **Technical Assistance**
 - ESCOs: legislative support and project preparation
 - Policy support: EPBD, EE goods procurement, utilities
- **Future directions**

Emergence of REEP in the Western Balkans



Since 2009, the EBRD has provided dedicated regulatory assistance and financing to energy efficiency (EE) and renewable energy (RE) projects in the Western Balkans.



The Western Balkans Sustainable Energy Financing Facility (WeBSEFF) for small-scale EE/RE projects in commercial sector



The Western Balkans Sustainable Energy Direct Financing Facility (WeBSEDFF) for medium-sized EE/RE projects in commercial and municipal sector

Regional Energy Efficiency Programme in the Western Balkans with WBIF support of **€23.35m**

Building on success of WeBSEFF and WeBSEDFF, the REEP was launched to support the sustainable energy transformation of the whole region in a comprehensive manner.

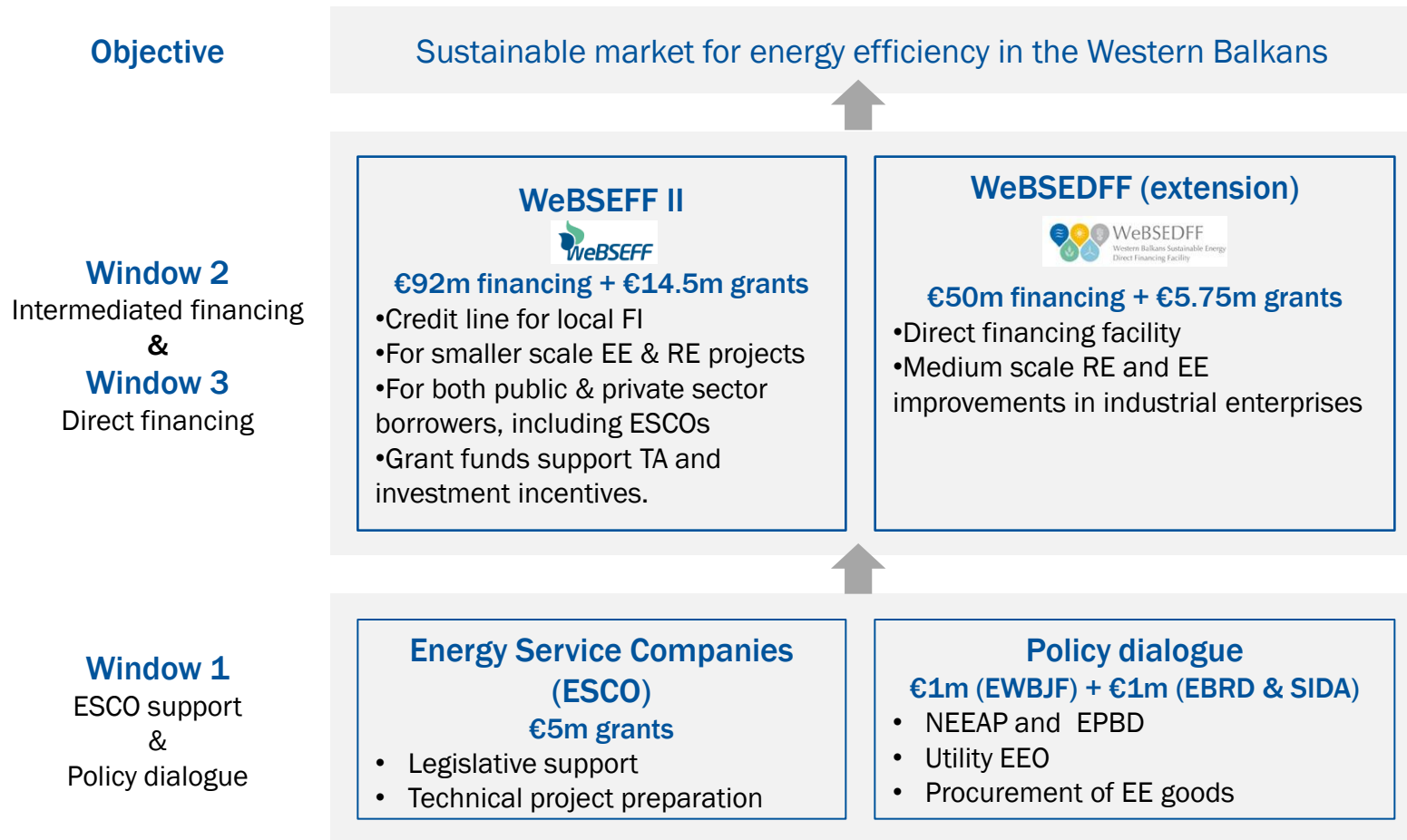
EBRD and Energy Community Secretariat:

- Prepared the concept jointly
- Implementing REEP in partnership

REEP proving to be **successful model of regional cooperation** between the EU, the EBRD, the ECS and BENEFICIARIES: deeply engaged through Technical Working Groups, and the Energy Efficiency Coordination Group.

REEP Overview

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



Window 2: WEBSEFF II – Results

ACHIEVEMENTS

Total CO₂ savings 205,028 t/yr

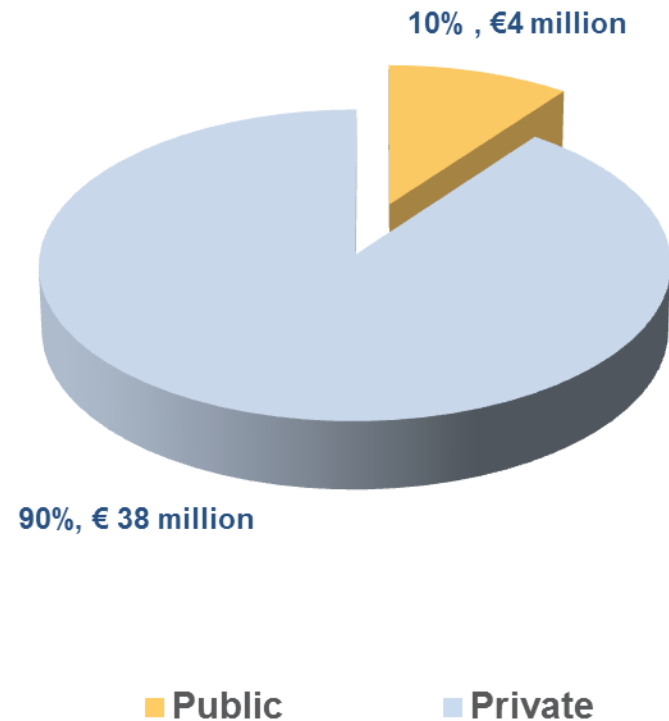
Total energy savings 386,668 MWh/y

Approved loan amount EUR 42 mln

Current pipeline value EUR 26 mln

Still to allocate EUR 24 mln

WeBSEFF II – Portfolio by Sector



Window 3: WeBSEDFF II - Progress update



Financial structure

- Direct finance €50m
- Incentives €5.75m
- Technical cooperation €1.3m

Progress

- 4 projects financed to date for a total of €17.9m (SHPP, biomass and biogas)
- 2 more projects approved for a total of €10.2m (SHPP)
- 3 projects in the pipeline, with indicative loan amount of €6.0m (biogas, solar PV)
- CO₂ emissions saved: 308,606 tonnes/year
+ 22,821 (for the approved projects)

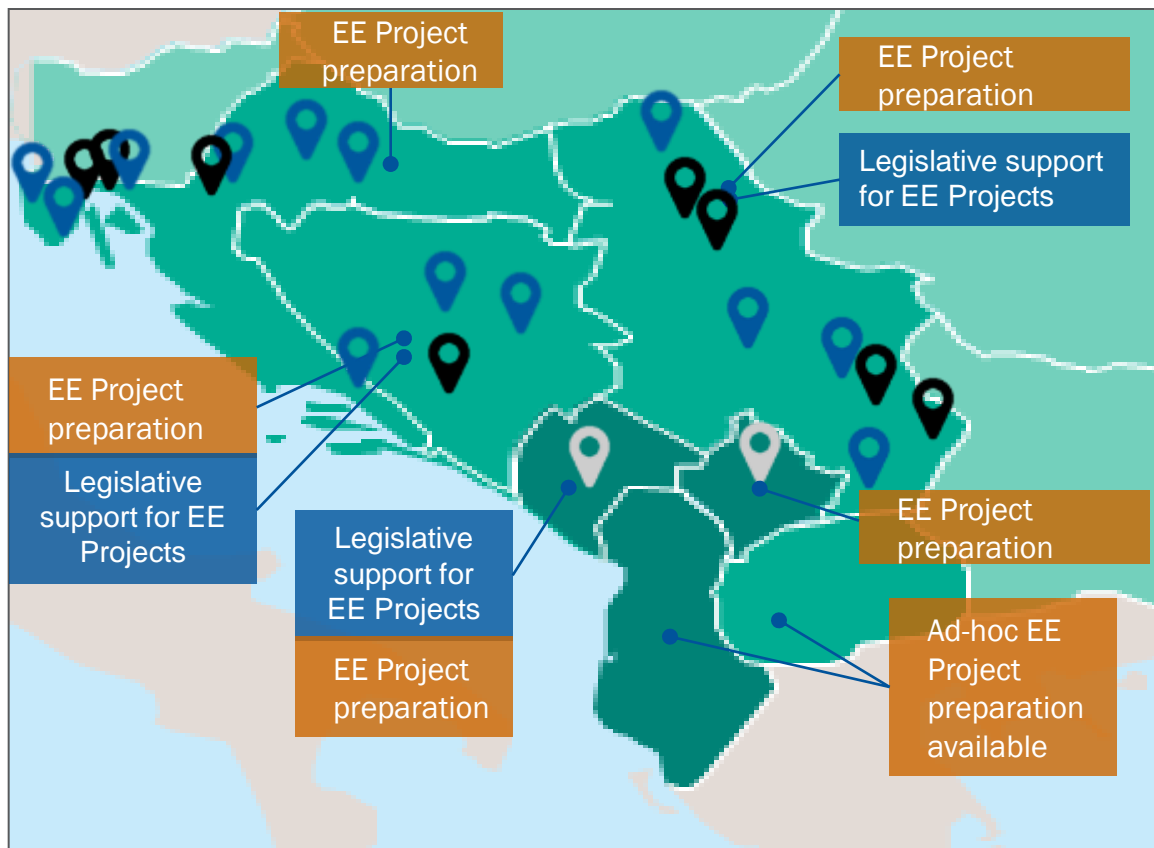
Window 1: Policy Dialogue

The role of Energy Community Secretariat

The Energy Community Secretariat

- **Facilitates** the implementation by bridging between beneficiaries, EBRD, the Consultant and the European Commission.
- **Works** with the beneficiaries to implement the legal and regulatory framework and sector reforms (price, market liberalisation, etc.) that support energy efficiency investments.
- **Convenes** three times a year an Energy Efficiency Coordination Group to discuss progress in REEP and share lessons and models of implementation.
- **Monitors** the beneficiaries progress and takes action through the dispute settlement procedure against the beneficiaries that are lagging behind the implementation of the energy efficiency acquis, thus providing support to REEP.

Window 1: ESCO Policy dialogue and TC



TC project preparation for ESCO projects:

- 2 street lighting projects implemented in Q1/2016
- 1 street lighting project contract to be signed Q1/2016
- 5 could be tendered in Q1/2016
- 5 more tenders are prepared
- 9 more tenders under preparation, including street lighting PPP Belgrade
- 12 additional 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

Window 2: WeBSEFF II case study

A biomass boiler investment pays off in 2 years

CLIENT

A jam producer that uses LFO and electricity for heating and jam production was looking for ways to reduce its energy costs.

PROJECT

- Investing in a biomass boiler that can run on a plum residues and wood pellets
- Insulating walls, ceilings and the cooling chamber
- Replacing doors and windows

FINANCIAL STRUCTURE

Total Investment	€247,200
EBRD loan	€149,600



EXPECTED IMPACT

- Production cost savings: €140,300/year
- Payback period: 1.7 years
- Emission reductions: 700 tCO₂/year
- Waste reductions: Instead of being wasted, plum stones are utilised as a source of energy.
- Other benefits: thermal comfort in the workplace

Sokolac Energy Supply Contracting project

Baseline

- Biomass district heating system since 1980
- Owner – Municipality Sokolac; managed by public enterprise Toplane Sokolac
- Capacity 14,2 MW (in use 6 MW)
- Biomass consumption 25,000 spatial meters



Project:

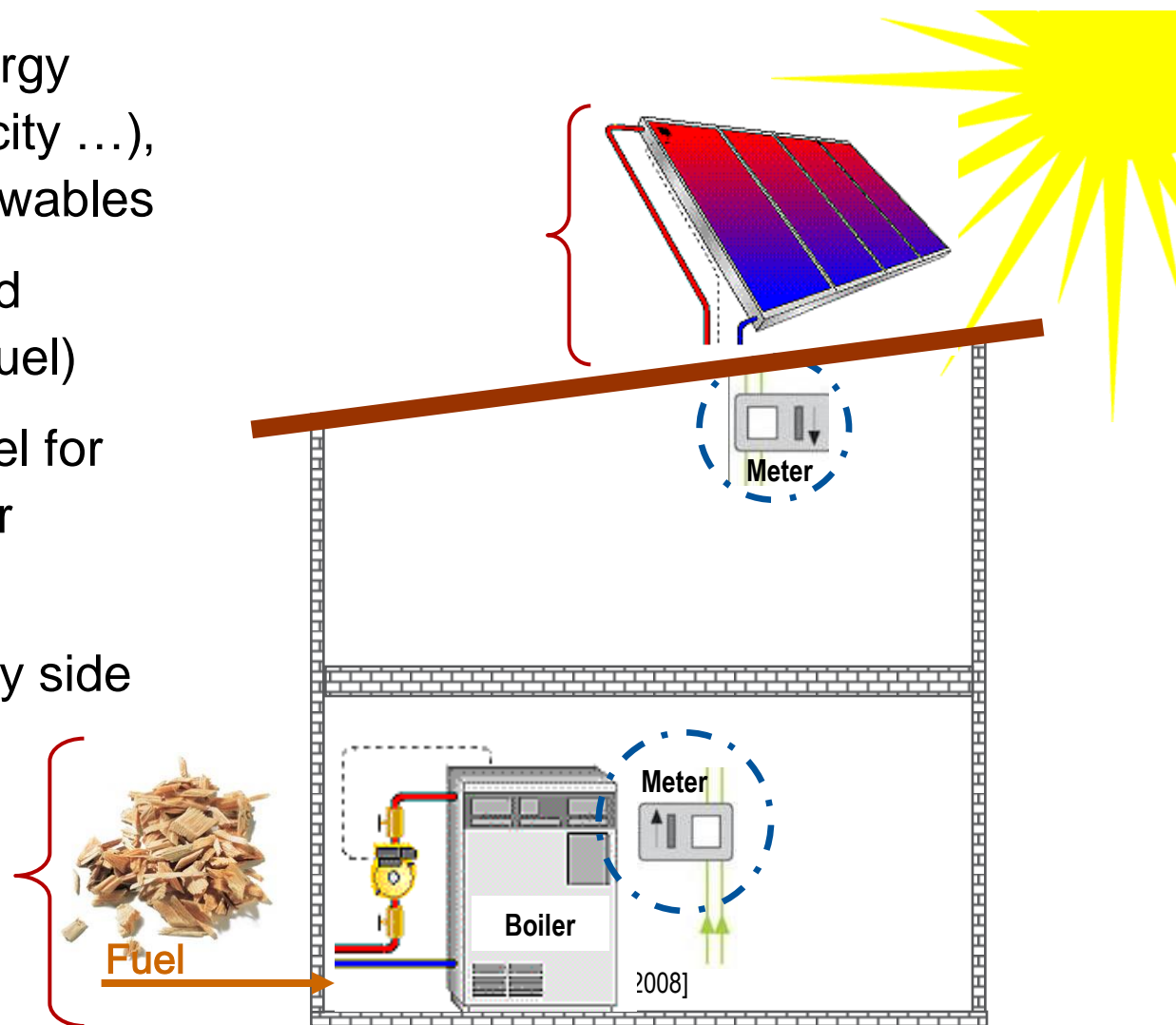
- Peak and back up in existing boilers
- Expansion of DH network (potentially 60,000 sqm new customers)

Event on 26 February:

- Project scope and commercial concept presented to Stakeholders
- Next step is finalising tender documentation and publishing (municipal decisions have been taken)

Basics of Energy Supply Contracting (ESC)

- Supply of useful energy (heat, steam, electricity ...), preferably from renewables
- M&V: MWh delivered (pay for output, not fuel)
- Good business model for Renewables, CHP or heat recovery ...
- But: Limited to supply side efficiency

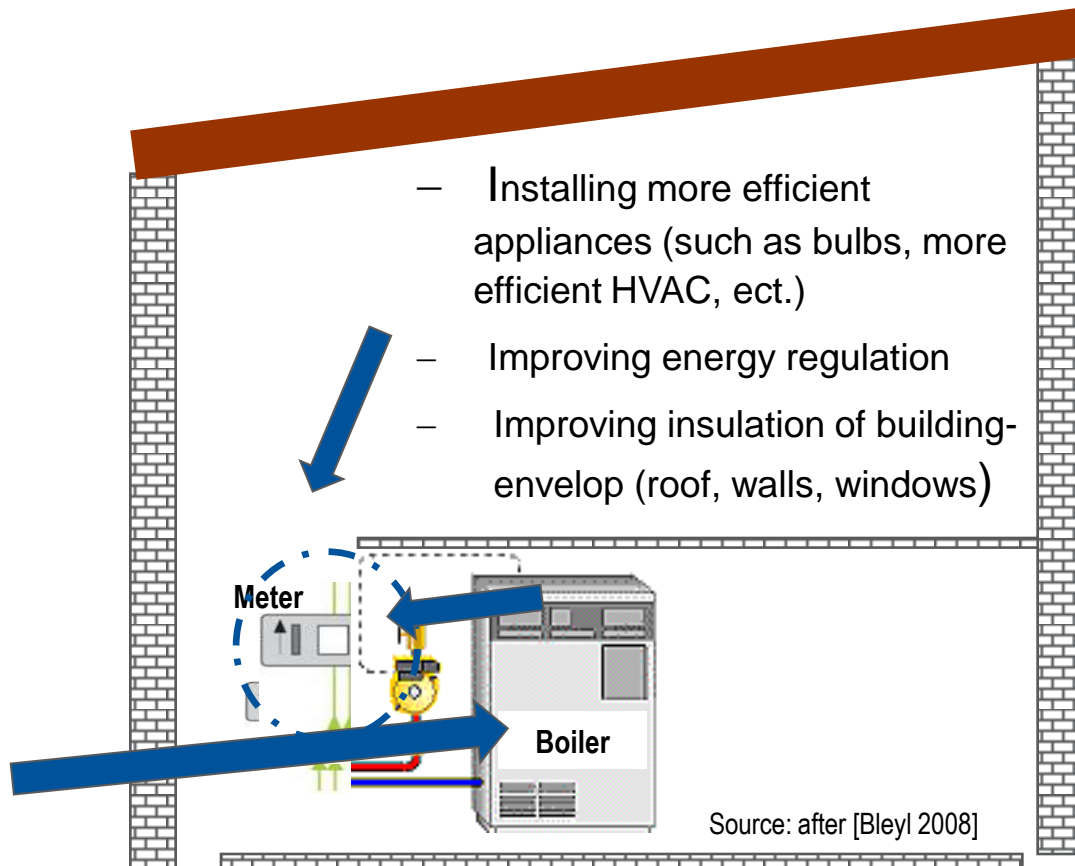


Source: after
[Bleyl 2009]

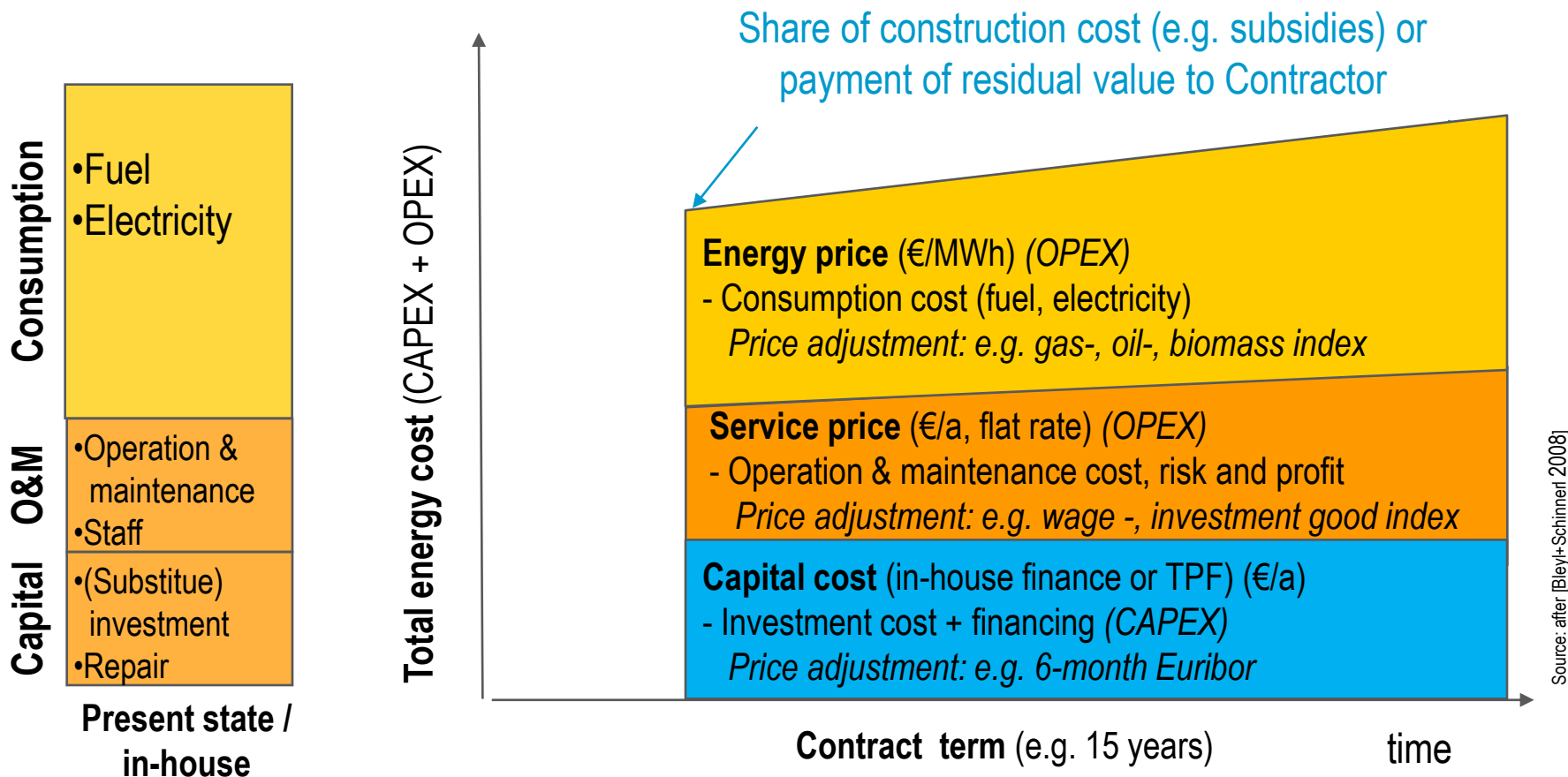
Basics of Energy Performance Contracting (EnPC)

PERFORMING ENERGY SAVINGS - AT SAME LEVEL OF COMFORT BY MEASURES SUCH AS:

- Installing more efficient appliances (such as bulbs, more efficient HVAC, ect.)
- Improving energy regulation
- Improving insulation of building-envelop (roof, walls, windows)



ESC – Business model (compared to present state)



Next steps

Scaling up street lighting (EnPC)

- **Croatia:** projects with capex >EUR 12m in pipeline, continue preparation
- **Serbia:** publishing of first tenders. Prepare tender for Belgrade.
- **Other countries :** on ad-hoc basis support preparation of projects.

Building EnPC and Energy Supply Contracting (ESC)

- **Support preparation of ESC and EnPC building projects**

Legislative support

- **Support on ad-hoc basis:** e.g. Serbia on ESC contract.

		number of visits by team-members	rough feasibility calcul. by team	detailed feasibility calcul. by team	LoI signed by Client	Waiv. L. signed by Client	Technical Proposal submitted by team	PPP Proposal submitted by team	PPP Comm. Agreement achieved	Assembly - agreement of PPP proposal achieved by Client	Tender Papers submitted by team	Tender published by Client
			1	2	3	4	5	6	7	8	9	10
1	Varvarin	4	1	1	1	1	1	1	1	1	1	
2	Vranje	3	1	1	1	1	1	1	1	1	1	
3	Vrbas	5	1	1	1	1	1	1	1	1	1	
4	Nis	3	1	1	1	1	1	1	1		0.5	
5	Pirot	3	1	1	1	1	1	1			0.5	
6	Veliko Gradiste*	2	1	1	1	1	1					
7	BG - Publ. Light.	4	1	1	1	1						
8	Paracin	1	1	1	1							
9	Sombor	2	1	1	1							

Window 1: EE policy dialogue


Technical assistance assignments

EPBD implementation support

Procurement of EE goods

Utility scheme (EEO) and tariff design

NEEAP development support




 TA assignments completed

 TA assignments ongoing



Policy Dialogue support

Next steps

 <p>EPBD support</p>	<ul style="list-style-type: none">• Deliver calculation software training to Kosovo (already delivered to BiH-Fed and FYR Macedonia) and EPC registry training in BiH-Fed (Q1 2016)• Beneficiaries to adopt and implement legislative and regulatory instruments (ASAP) – nothing adopted to date!
 <p>Procurement of EE goods</p>	<ul style="list-style-type: none">• No outstanding work• Beneficiaries have now adopted regulations:<ul style="list-style-type: none">• Serbia 19 Dec 2015• Montenegro 11 Feb 2016
 <p>Utility schemes and tariffs</p>	<ul style="list-style-type: none">• Approval of draft EEO scheme regulation by Minister in Croatia (ASAP)• Stakeholder workshop (Mar-Apr 2016)• Amendments to Law on End Use Energy Efficiency in Montenegro (2016)• Finalisation of draft regulation for EEO in Montenegro (Mar 2016)• Approval of draft regulation for EEO in Montenegro (2016)
<p>Inspection alternatives</p>	<ul style="list-style-type: none">• Finalisation of draft 'equivalence report' (March 2016)
<p>NEEAP</p>	<ul style="list-style-type: none">• Finalisation of draft NEAAP (Mar-Apr 2016)• Approval of draft NEEAP (Apr 2016)
<p>Inspections and software</p>	<ul style="list-style-type: none">• Finalisation of inspections regulations (Mar 2016)



Thank you

