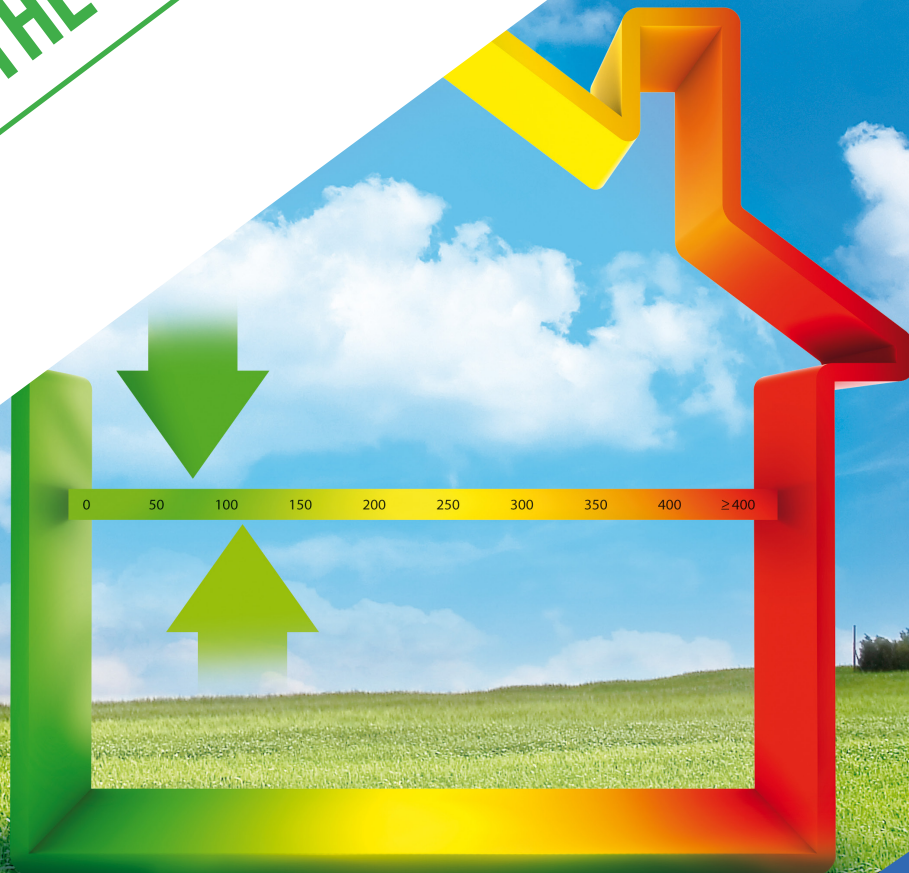


FINANCING ENERGY EFFICIENCY INVESTMENTS IN THE WESTERN BALKANS



ABBREVIATIONS AND ACRONYMS

CEB	Council of Europe Development Bank	GGF	Green for Growth Fund
CEE	Central and Eastern Europe	IEA	International Energy Agency
DFI	Development Finance Institution	IFC	International Finance Corporation
EBRD	European Bank for Reconstruction and Development	IFI	International Financial Institution
EC	European Commission	Kgoe	Kilogram of Oil Equivalent
EE	Energy Efficiency	Mtoe	Million tons of oil equivalent
EECG	Energy Efficiency Coordination Group	MVP	Monitoring and Verification Platform
EED	Energy Efficiency Directive	NEEAP	National Energy Efficiency Action Plan
EEFF	Energy Efficiency Finance Facility	RE	Renewable Energy
EEFIG	Energy Efficiency Financial Institution Group	REEP	Regional Energy Efficiency Programme
EIB	European Investment Bank	SEE	South East Europe
ELD	Energy Labelling Directive	SME	Small and Medium Enterprise
EPBD	Energy Performance of Buildings Directive	UNDP	United Nations Development Programme
ESCo	Energy Services Company	USAID	United States Agency for International Development
ESD	Energy Services Directive	WB6	Western Balkan 6 Countries
EU	European Union	WBIF	Western Balkans Investment Framework
GDP	Gross Domestic Product	WBG	World Bank Group
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit		



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FOREWORD



Johannes Hahn
European Commissioner
for European Neighbourhood Policy and
Enlargement Negotiations

Energy Efficiency is often described as the EU's biggest energy resource, the "first fuel", as it is competitive, cost effective and widely available. Energy efficiency will also enhance energy security, while at the same time decreasing emissions. This is why the EU has ambitious energy savings targets for 2020 and 2030, and 'energy efficiency first' is one of the principles of the Energy Union project.

The energy intensity of the Western Balkan countries is very high compared to the average of the EU. These countries therefore have an efficiency potential unrivalled in Europe. Tapping it will contribute towards much-needed economic growth and reduce reliance on imported hydrocarbons. Through their membership of the Energy Community, the Western Balkan countries have already committed to adopting EU Energy Efficiency rules, norms and standards. Transposition is on its way.

However, a proper legal framework is only part of the story. The necessary efficiency investment must be financed for the potential to be harvested. The EU, international financial institutions, and donors have all made substantial contributions to making dedicated energy efficiency finance available and affordable. They have also worked to create the right framework to encourage efficiency investments, and to build up capacity to manage these investments.

Over the 2007-2015 period, the EU contributed more than €100 million to support energy efficiency investment worth more than €500 million in accession countries, with sizeable results already in terms of energy and emission

savings. They will also result in cost savings for users.

Still, much more remains to be done if the countries of the Western Balkans are to reach EU energy efficiency standards. The regulatory framework must be improved to facilitate investment. Initiatives are needed to bring in new actors and impact markets such as the residential sector or develop waste-to-energy. The region's leaders should embrace the 'energy efficiency first' principle to improve their countries' energy security. Last but not least, investing in energy efficiency helps economic growth and jobs in a labour-intensive sector.

At the Western Balkans summit in Paris in July 2016, the EU pledged an additional €50 million to the Green for Growth Fund and Regional Energy Efficiency Programme, two successful regional initiatives whose creation it previously helped. This funding will leverage around €240 million of new funding for on-lending to new energy efficiency and renewable energy projects in the region, taking it a step closer to its objectives and targets.

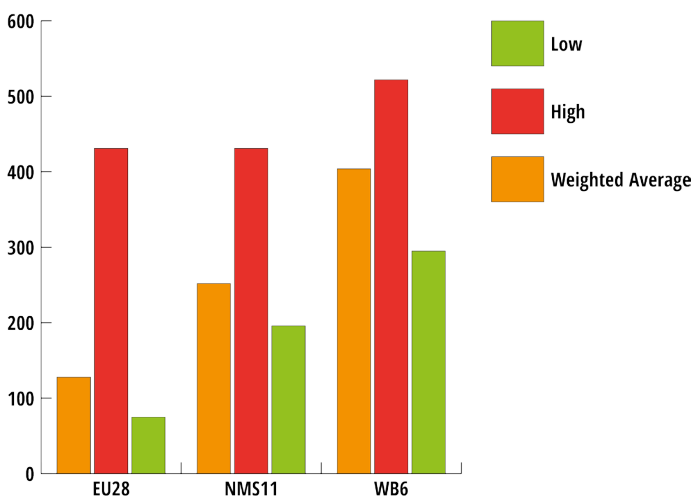
This is only the beginning of the EU's engagement in this sector.

THE CASE FOR ENERGY EFFICIENCY IN THE WESTERN BALKANS

Similar to other transition economies, the Western Balkans 6 (WB6) countries - Albania, Bosnia and Herzegovina, Kosovo*, the former Yugoslav Republic of Macedonia, Montenegro, and Serbia - emerged from the socialist era with energy intensive economies.

Significant progress was made over the past 15 years and energy intensity, defined as the energy consumed to produce a unit of GDP, declined by approximately 20% - 25%. However, the WB6 remain 3 times more energy intensive than the EU28 at large and 1.6 times more than new member states from Central and Eastern Europe (NMS11).

Energy Intensity (kg of oil equivalent per € 1,000 GDP)¹

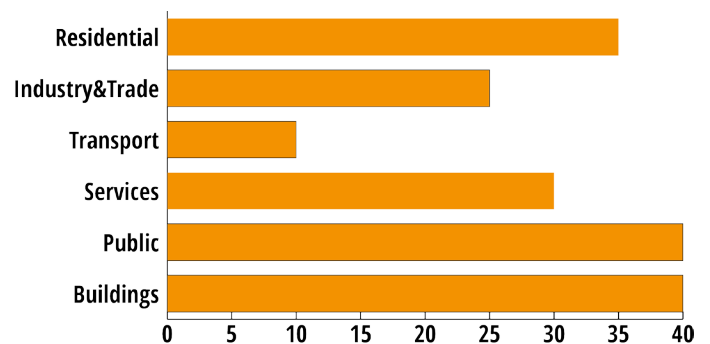


¹ Eurostat, Energy Community Secretariat and own calculations for 2013.

The residential and transport sectors represent the largest components of Total Final Energy Consumption, accounting for 50 to 70% of the total. Industry is also a significant consumer in Serbia, Montenegro and the former Yugoslav Republic of Macedonia.

Various IEA and World Bank estimates point to potential savings in the WB6 of up to 10% in the transport sector, 10-35% for households, 35-40% in the public sector, 10-30% in services and 5-25% in industry and commerce.

Energy Savings Potential (%)



In monetary terms, public buildings and households alone could yield savings valued at €805 million by 2020 according to the Energy Community. Delivering such savings would have a significant impact on trade balances and public and household budgets, enhance energy security, protect against necessary energy tariffs adjustments, and contribute to economic growth.



Investment in energy efficiency is imperative – our SEE Road Map shows that investment in near-zero energy buildings and retrofits to EU standards would reduce energy demand for heating and cooling by 50%, while stimulating new job opportunities.

- Garret Tankosić-Kelly, SEE Change Net Principal



*This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

REGULATORY FRAMEWORK: PROGRESS TOWARDS FULL COMPLIANCE WITH THE EU ACQUIS

The WB6 countries are members of the Energy Community, whose mission is to extend the EU internal energy market to South East Europe. In 2009, the Energy Community recognised the importance of energy efficiency and decided to incorporate the relevant EU directives into its legal framework.

Energy Community members must thus implement three Directives:

- Energy Efficiency (EED-2012/27/EU, superseding the Energy Services Directive, ESD-2006/32/EC from 2017)
- Energy Performance of Buildings (EPBD-2010/31/EU)
- Energy Labelling of Products (ELD-2010/30/EU).

The EED seeks to reduce energy consumption by 20% by 2020, with final consumption capped at 30 Mtoe for WB6 countries. It calls for legally binding measures to step up efforts to use energy more efficiently at all stages of the energy chain, from production to consumption. Measures include:

- establishment of energy efficiency obligation schemes (or equivalent alternative measures)
- 1% annual renovation obligation of central government buildings
- promotion of energy audits
- promotion of efficient heating and cooling
- measures to enable and develop demand response, etc.

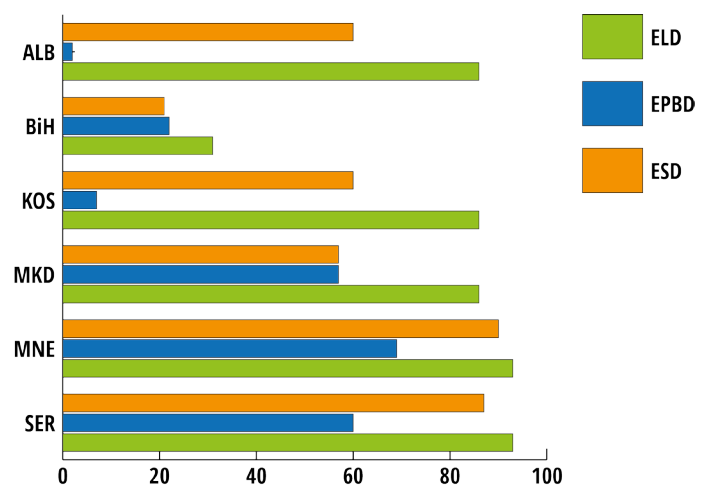
The EPBD sets minimum energy performance requirements for new and existing buildings.

The ELD establishes a legal framework for the labelling of goods as well as the provision of consumer information regarding energy consumption for energy-related products.

The adoption and transposition of these directives is still work in progress in the WB6 region¹.

Progress is essential to ensure that the region's energy efficiency potential is duly harvested. The EC, the Energy Community, the WBIF, IFIs and bilateral donors are providing technical assistance to beneficiary countries to facilitate compliance.

Progress with EED, EPBD and ELD Transposition in the Western Balkans (April 2016)



¹ The Energy Community analyses each country's compliance with its Community commitments in its Annual Implementation Report, which is available at www.energy-community.org.

A Policy Agenda for the Western Balkans

For the Western Balkans countries to successfully make energy efficiency “the first fuel”, regulatory reform is necessary but not sufficient. Current market failures must be addressed through supportive public policies in order to generate a demonstration effect, mobilise skills and resources more broadly and bring energy efficiency in the tangible world.

The required policy agenda includes among others:

1. The Public sector should lead by example and initiate deep building renovation programmes, use energy efficiency criteria in public procurement, and support the introduction of municipal energy management systems.
2. Governments should help turn energy efficiency into a business, by supporting private sector investment in public buildings' renovation (through the ESCO mechanism), investing in municipal services modernisation (lighting, heating, cooling) and developing a legal and regulatory framework that incentivises private sector engagement.
3. Consumer education and empowerment must be supported through active awareness raising, enhanced access to financing, support to using of renewable energy in buildings, rolling out smart metering, labelling and support to eco-design of appliances (testing and market surveillance).

WORKING TOGETHER: THE ENERGY EFFICIENCY COORDINATION GROUP

In December 2007, the Energy Community and EU Member States recognised the need for regular and close cooperation on energy efficiency matters and established a Task Force on Energy Efficiency. After five successful years the Task Force became a permanent Energy Efficiency Coordination Group (EECG).

The EECG, an initiative funded by the EU, brings together all key stakeholders three times a year, including Energy Community member and observer countries, IFIs and donors engaged in energy efficiency investments and technical assistance initiatives in the region, as well as the European Commission.

The Group promotes exchange of experience and best practice. It facilitates the transposition of EU directives into national legislations and supports implementation; helps identify gaps and avoid overlaps; tracks progress of the regional finance facilities; and contributes to identifying energy efficiency regulatory development and new financing needs in the region.

The 2015 - 2016 working programme focuses on:

- Implementation of current and new energy efficiency directives in the Energy Community
- Development and monitoring of the next round of Energy Efficiency Action Plans
- Promotion of the exemplary role of public sector and energy services

- Coordination of donors support for energy efficiency
- Promotion of existing regional support initiatives and the design of new ones, as appropriate
- Exchange of best implementation practices in Contracting Parties and EU.

The Energy Efficiency Coordination Group in Brief

A	Financed by European Commission - Directorate General Neighbourhood and Enlargement Negotiations; meets every 4 months
B	European Commission; WB6; several Neighbourhood East countries; IFIs (EBRD, KfW, EIB, IFC, World Bank), donors (GIZ, USAID, UNDP)
C	Key coordination mechanism: identifies gaps; ensures no overlaps
D	Monitors EU-supported REEP and GGF; identifies new financing needs for energy efficiency in the region



The Energy Efficiency Coordination Group is more than a task force in its strict definition! I would like to call it a platform for national experts in energy efficiency in the Energy Community to meet and discuss how to best advance this agenda in their countries.

The discussions are centred on the legal framework development and improvement, as well as on financing of energy efficiency. This is why the Group has such a diverse composition: countries experts, representatives of the Commission from both Energy and NEAR directorates, all the IFIs engaged in the region, many multilateral donors (GIZ, USAID, UNDP, etc.) and last but not least the Energy Community Secretariat.

The value added is the openness of the discussions, jointly looking for most suitable solutions and above all, the high level of expertise brought in by international experts and the IFIs. This is also seen by the Commission, the donors and the IFIs, a sounding board when designing new technical and financial assistance.



- Violeta Kogalniceanu, Head of Infrastructure and Energy Efficiency, Energy Community Secretariat, EECG Co-Chair

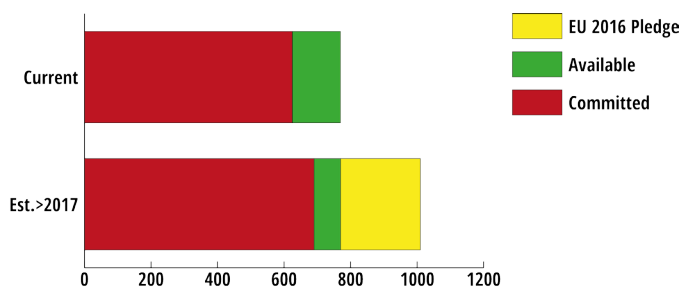


FINANCING ENERGY EFFICIENCY PROJECTS IN THE WESTERN BALKANS

Energy efficiency projects typically entail significant up-front spending, subsequently recovered through savings on energy expenditures achieved over a long period. Availability of long term financing to financial intermediaries with a good appreciation of the economics of energy efficiency investment is thus necessary to support the sector.

Donors and development institutions were essential in opening the market in the past ten years, through the provision of long term funding, technical assistance and incentives. They still provide most of the available funding to commercial banks. Some commercial banks fund their own energy efficiency initiatives, usually in smaller volumes and often after an initial learning phase using official funding and technical assistance.

Usage of Existing Facilities to Date (million EUR)



With over €150 million of grants to the sector since 2007 covering WB6 countries, Croatia and Turkey, the EU has played a key role in the development of energy efficiency finance in

South Eastern Europe through three main initiatives.

The 2007 Energy Efficiency Finance Facility (EEFF) aims to promote investments in energy efficiency and renewable energy generation. EEFF combines IFI credit lines (EIB, EBRD, CEB, KfW), extended to financial intermediaries in the WB6 countries, Croatia and Turkey, with incentives for end-borrowers to improve the cost effectiveness of equipment and make investment more attractive.

Moreover, the Facility provides for administration fees to the benefit of local financial intermediaries in order to encourage them to enter this new market. In total, EU grants worth €35 million support some €150 million loans targeting primarily the corporate sector.

The Green for Growth Fund (GGF) is an investment fund created in 2009 which focuses on energy efficiency and renewable energy in the Balkans, Turkey and the Eastern Neighbourhood region. GGF provides refinancing and technical assistance to financial intermediaries active in the sector. It raises funds from donors, IFIs and private sector investors.

The EU contribution to GGF amounts to €69.5 million in risk capital (including €20 million in fresh capital contributed in 2016) and €13.8 million for technical assistance. GGF supports approximately €300 million of loans in total, including nearly €250 million in the WB6 countries, Croatia and Turkey.

The Regional Energy Efficiency Programme (REEP) is a 2013 initiative managed by the EBRD and blending policy support to WB6 governments with loans, technical assistance and incentives to support energy efficiency and renewable energy projects in the public and private sectors. REEP operates both

KfW: Energy Efficiency Improvements in Primary School “Salko Aljkovic”, Pljevlja, Montenegro (left: before; right: after)



directly and through intermediaries.

A €20 million EU contribution and a further €3 million contribution from the WBIF have supported loans in excess of €142 million to date. In 2016, the EU committed a further €30 million to back the launch of REEP Plus - the first regional energy efficiency initiative targeting the residential sector.

Additional information on GGF and REEP is available on pages 16 and 17.

While the interest in energy efficiency is still recent and the regulatory framework incomplete, the financing offering in the region is already significant and diversified. Active Energy Efficiency facilities focusing on the region and supported by development institutions and/or donors represent cumulative funds in excess of €750 million in 2016.

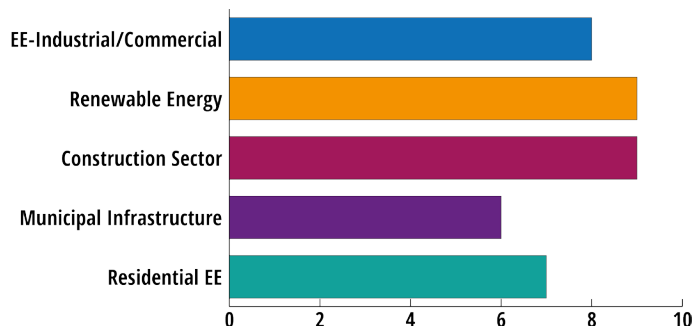
Most facilities rely on local financial intermediaries to identify and implement projects using funds provided by the facilities. Approximately 45 commercial banks or financial institutions offer energy efficiency of renewable energy financial products in the region. They target mostly the corporate, SME sector and household sectors and more infrequently the public or agricultural sector. Some facilities can also lend directly to larger projects.

The largest facilities, GGF and REEP, are regional in scope. All the others are more restrictive, usually targeting a single country. Among country facilities, Serbia is the principal country of destination, followed by Kosovo and Bosnia and Herzegovina.

Facilities are being used at a brisk pace, with approximately €145 million left available in 2016 for new projects. In addition, EU commitments worth €50 million, as announced in 2016, should result in an additional €240 million lending capacity, which would become available towards the end of 2016.

In terms of target clients, all key groups are represented.

Active Energy Efficiency Facilities (number) per Sector



The emphasis so far has predominantly been on the corporate sector, particularly SMEs. Attention devoted to the public sector or households is more limited, despite their strong potential for realising significant energy savings. A number of reasons can explain the situation, including the lenders' perception of associated risks and procurement difficulties in the public sector.

Green for Growth Fund: Improving Farmers' Economic Status in Albania

"Not only has the new refrigeration equipment halved our electricity bills, but it also means we can offer more fruit and vegetables at off-season prices, which is great for our profit margin."



The Thimi family lives in a small Albanian village where they have been growing vegetables and fruits on 2.5 hectares of land since 2003. The produce is sold at local markets where prices reflect seasonality: lower during harvest and peaking in winter. In order to override season constraints, the Thimis decided to take advantage of the financing facilities made available through the Green for Growth Fund and invest in a new larger and more efficient cold storage room which would allow them to keep more produce for a longer period of time.

They can now store produce for four months longer than before and use the extra capacity to store other farmers' produce to generate additional income. The investment allowed them to halve energy consumption by 16 134 kWh/year and thus save more than €1,000 per year in running costs, while broadening their business opportunities.

EU CONTRIBUTION IN BRIEF, 2007 - 2016



PLEGGED €152 MILLION FUNDING¹

LEVERAGED €760 MILLION LOANS



1.6 TWH/YEAR IN ENERGY SAVINGS = 4 MONTHS OF ALBANIA'S ELECTRICITY CONSUMPTION



1 MILLION TONS CO₂/YEAR IN EMISSION SAVINGS = MORE THAN A YEAR OF MONTENEGRO CAR FLEET EMISSIONS



36 NEW GREEN BANKS IN WB6

Impact of EU Contribution per Country



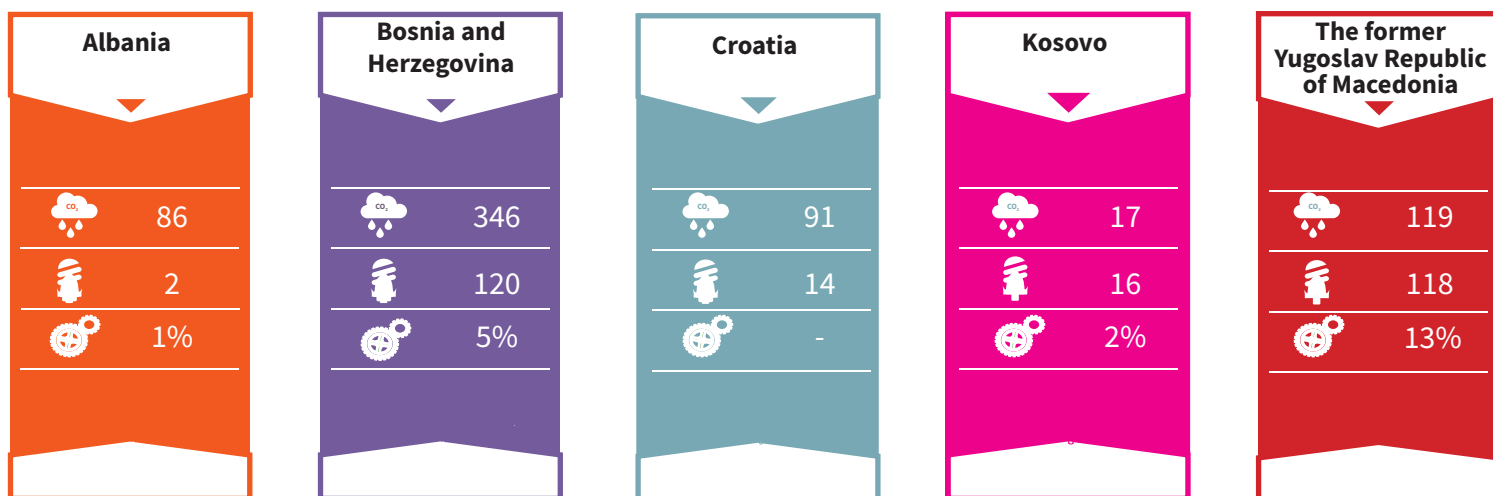
emission savings (kT/year)



energy savings (GWh/year)



contribution to national energy saving target



¹This overview includes contributions to WB6, Croatia and Turkey over the period 2007 - 2015, as well as the allocations to GGF and REEP Plus under the 2016 Connectivity Agenda. Leveraged loans consist of actual and potential.

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The EU plays a key role in supporting the development of energy efficiency finance in the region, working with IFIs and governments to dismantle regulatory barriers and to provide funding and incentives. The impact is visible: making SMEs more competitive, improving public buildings, reducing energy bills for citizens and contributing to economic growth and national energy efficiency targets.

The Western Balkans have a level of energy intensity that is substantially higher than that of their EU counterparts. That means that for every euro of output, twice and sometimes three times as much energy is required which has a negative impact on the region's competitiveness. At the same time, energy demand is increasing, often in an unsustainable fashion. For this reason, the Western Balkans should focus on reducing demand and improving energy efficiency. Indeed, the cheapest energy, the cleanest energy, and the most secure energy, is the one that you don't need to use. That is why energy efficiency should be the first line of investments.

- Genoveva Ruiz Calavera, Director, European Commission Directorate General Neighbourhood Policy and Enlargement Negotiations, Western Balkans

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Energy Intensity in the Western Balkans¹



¹ Energy intensity is a proxy for the energy efficiency of a country's economy. It is calculated as units of energy per unit of GDP (kg of oil equivalent per €1,000). It correlates with the economy's industrialisation and mix of services and manufacturing and also reflects the attention paid to energy efficiency. Advanced economies have seen strong decline in energy intensity: the EU figure for 2013 was 128 kgoe/€1,000, more than 30% below the 1990 level.

² Only renewable projects have been financed to date.

WHAT IS THE ROLE OF INVESTMENT INCENTIVES?

How common are incentives in energy efficiency finance in EU Member States?

Incentives play a large part in the energy efficiency finance in Europe. A 2014 study by the EC's Joint Research Center (JRC) on "Financing building energy renovations"¹ identified 73 schemes in existence in 26 Member States. The range of instruments was broad, including grants/subsidies, loans and tax incentives, as well as schemes using multiple instruments. Funding largely originated from public budgets (90%) with the balance provided by EU allocations, IFI funds and other sources. The schemes were estimated to disburse approximately €8 billion p.a. and to result in total investments of at least €24 billion p.a. The latter is however not sufficient to meet relevant EU targets.

Will there be a change in how energy efficiency investments are funded, on the medium term?

The scale of the challenge is such that current efforts will not be sufficient, as concluded by the JRC. In February 2015, the Energy Efficiency Financial Institution Group (EEFIG)² maintained that the incentives in the buildings sector would continue to play a significant role:

"Energy waste in buildings through inefficient design, inefficient use, inefficient systems, age, habit or inertia when cost effective renovation alternatives exist must be rapidly phased out through effective regulation and incentives"

For the corporate sector, EEFIG advocates a well-balanced mixture of incentives for swift action (such as fiscal support or accelerated depreciation regimes) and penalties for non-compliance.³

1 Bertoldi M. Economidou. *Financing Building Energy Renovations*. Publication Office of the European Union, Annex II. 2014.

2 The Energy Efficiency Financial Institution Group is an energy efficiency financing working group set up by the European Commission and the UN's Environment Programme Finance Initiative.

3 Energy Efficiency Financial Institutions Group. *Final Report on Buildings, Industry and SMEs*. 2015. Online. <http://ec.europa.eu/energy/>.

Investment incentives are hence likely to continue to play a key role in energy efficiency finance in richer economies, particularly in the residential sector. This sector is crucial to meet targets and it will require a large and sustained renovation effort of the existing housing stock, given low replacement ratios.

What about WB6 countries?

Among the broad range of products already available, most involve incentives, from investment grants to the final client to incentives paid to financial intermediaries and risk sharing schemes lowering the cost of capital.

EE officials from the WB6 countries consider incentives necessary given local living standards and economic conditions, high investment costs and long pay-back periods, high market interest rates, incomplete regulatory frameworks, subsidised energy prices and low levels of awareness in most market segments, particularly in the residential/household segment.

They note, where data are available, that concessional finance delivers over half of achieved savings, and consider that incentives are not currently distorting a mostly nascent market. They however expect incentives to be increasingly tailored to the needs and/or issues of specific market segments in order to avoid windfall effects and better support the targets assumed as part of their National Energy Efficiency Action Plans.

What is the view of financial institutions?

Financial institutions consider that incentives are part of the mix required for successful energy efficiency schemes. They however note that incentives do not exempt from action on other critical issues preventing market development. They also appreciate that market participants already make use of the complementarity of existing schemes (Green for Growth Fund, Regional Energy Efficiency Programme, a.o.) contingent on the client type.

International experience shows that concessional finance



Energy efficiency investment in the region remains hindered by low awareness, low energy tariffs, billing methods and the economic situation. Investment incentives are thus crucial for increasing awareness and developing the market, particularly for multifamily housing.

- Antonela Solujić, Head of Department for Energy Efficiency, Serbian Ministry of Mining and Energy; EECG Co-chair



plays a critical role where market barriers are present and restrict the scale of commercial lending. Grants help significantly to scale up the market and reach ambitious targets to be adopted in the region.

The Green for Growth Fund's experience over the past five years shows that households financed without grants invest in a consistent limited number of measures and result in average sub-loans of about €3,000. The European Bank for Reconstruction and Development however expects that a sliding-scale approach (under which support ratios increase with the number of measures implemented) would push average loan size towards €5,000.

Which road ahead for the WB6 region?

Well-designed, clear and simple financial and fiscal incentive plans for energy efficiency investments, together with targeted communication plans, are thus needed in the region, with due care given to moving towards targeted schemes. Incentives will be most needed in the residential sector and for a longer period of time than in the case of the other sectors. The former constitutes the biggest source of potential savings as well as the sector where financing issues are currently the most acute, with few incentives available.

An April 2015 market study by ECO Group for the European Bank for Reconstruction and Development concluded that incentive levels of over 50% could be justified. It notes however that for households and individual apartments, incentives at or slightly above 20% have been shown to stimulate the market in the region.

The study recommends a 20% incentive level for projects in individual houses and individual dwellings in apartment buildings. For apartment buildings in their entirety, a much higher level (over 50%) could be justified. It also estimates that many barriers in this market segment are non-financial and could be better addressed through technical assistance as well as a 30% incentive.

Experience from new EU Member States shows that the provision of incentives must also evolve from donors to national resources (including EU Structural Funds), given the positive economic return that could be triggered by such official investments in the sector.

Regional Energy Efficiency Programme: Hydropower Generation in the former Yugoslav Republic of Macedonia



The topography and climate in the former Yugoslav Republic of Macedonia are best suited for hydropower development. The latter represents about 10% of overall power production; moreover, less than 30% of the potential is exploited despite the country's average annual national power generation deficit of 1,400 GWh. The government has recently launched a small hydropower plants programme based on public-private participation. To date, more than 60 concession contracts have been awarded for total investment in excess of €100 million.

BNB Enerdzi is one such private developer who won the concession for the development of the small hydropower plant MHE 208 Kazhani on the Shemnica River in the Baba Mountains, under a Design-Build-Operate-Transfer model, with financing from the Regional Energy Efficiency Programme (REEP). The plant will generate approximately 3,400 MWh/year, with reduced impact on the environment. The investment payback period is 9 years.

OBSTACLES TO MARKET DEVELOPMENT

While a **subdued economic climate** in the WB6 is a major impediment to investment in energy efficiency, sector-specific issues also slow down market development.

Energy prices subsidies are prevalent, albeit these are perceived as a major dis-incentive to energy efficiency investment, often compounded by late or non-payment of energy bills. Recent electricity tariff increase in countries such as Albania, Kosovo, Montenegro or Serbia and tighter payment enforcement as well as anti-theft actions in Albania have started addressing the issue. With WB6 electricity prices ranging from €0.06 to €0.12 / KWh vs. a €0.11 to €0.16 range in CEE new Member States and an EU 28 average of €0.21, the gap is significant.



The potential benefits that energy efficiency can deliver in the Western Balkans are undeniable, and enormous. While countries are making some progress in improving energy efficiency, significant barriers remain. More efforts are required of both the government and private sector to capture the energy efficiency benefits.

- **Dr Nigel Jollands, Associate Director, Energy Efficiency & Climate Change, European Bank for Reconstruction and Development**



Energy tariff increases represent however a sensitive issue in a region where energy poverty affects half of its population. Prices are often significantly higher when expressed in Purchasing Power Standards (PPS). Electricity prices in Serbia or the former Yugoslav Republic of Macedonia jump from €0.06 and €0.08 at market exchange rates to €0.13 and €0.20 respectively at PPS (vs. an EU average of €0.21). The adjustment of energy tariffs in the region will therefore likely be gradual; Implementing energy efficiency measures could help soften their impact.

Stakeholders also point to **limited political support for energy efficiency** in the region, compounded by frequent political changes. These make it difficult to generate the commitment required to implement long term policies. The

owners building renovation, or when the long term funding required by energy efficiency loans is scarce. The perception of sector-specific risk is usually high within commercial banks, particularly for residential projects, and the management commitment in local banks is not always very strong.

Finally, the EED imposes new challenges. At an Energy Community Ministerial Council in October 2015, Contracting Parties expressed the view that the overall timeframe of 2020 remains a challenge, especially from a financial perspective. Therefore they invited the Commission to consider expanding financial and technical support to the process of transposing and implementing the EE Directives as well as to encourage bilateral and other multilateral Donors to provide adequate support.



Sluggish growth and subsidised energy prices present challenges when demonstrating the economic advantages of green investments to households and businesses, but the GGF's market-based funding and tailored technical assistance are effectively working to overcome these obstacles.

- **Christopher Knowles, Chairman of the Board, Green for Growth Fund Southeast Europe**



MAIN PROVIDERS OF TECHNICAL ASSISTANCE IN THE WESTERN BALKANS

Gesellschaft für Internationale Zusammenarbeit (GIZ)

GIZ is one of the most active TA providers in the Western Balkans, either through bilateral or multi-beneficiary programmes, with current commitments in excess of €20 million.

The main multi-beneficiary programme is the Open Regional Fund for South East Europe – Energy Efficiency, which supports the preparation and monitoring of the National Energy Efficiency Action Plans (NEEAP). In particular, it helped develop the web based Monitoring and Verification Platform - a tool monitoring NEEAP implementation as well as regional or local policy plans.

The MVP was launched in 2015 and will be used to monitor the second NEEAP (2013-2016) achievements as well as to plan the third NEEAP (2016-2019). An innovative and successful tool, MVP will be disseminated to nine countries in Northern, Central and Eastern Europe under the Horizon 2020 programme financed by the EU.

www.giz.de



United Nations Development Programme (UNDP)

UNDP promotes investment in energy efficiency, renewable energy, and sustainable transport by reducing policy, regulatory, legal and financing barriers; raising awareness; promoting energy efficiency in public and residential buildings, energy efficient lighting, and energy-efficient standards and labels; and developing and supporting new financing mechanisms and structures. UNDP also supports national partners in the region to develop low emission development strategies and mitigation actions through guidance, training and assistance to access and mobilise finance. UNDP cooperates with the Global Environment Facility to implement projects.

UNDP is primarily active in Albania, Bosnia and Herzegovina, Kosovo, Montenegro and Serbia with active programmes in excess of \$40 million.

www.undp.org



United States Agency for International Development (USAID)

In the energy field, USAID aims at expanding access to modern energy services and it supports policy, legal, regulatory and commercial reforms in the region with programmes in Albania, Bosnia and Herzegovina, Kosovo and the former Yugoslav Republic of Macedonia. USAID closely cooperates with the EECG and its support focusses on EE in buildings. Active programmes in the region are in excess of \$20 million.

www.usaid.gov



Western Balkans Investment Framework (WBIF)

The WBIF is a key source of finance for infrastructure project preparation and implementation in the region. WBIF offers grants that are blended with loans. So far WBIF has funded 26 EE/RE projects in an amount in excess of €35 million. Most of the funding was for project preparation technical assistance. In addition, WBIF provided €23 million towards REEP.

www.wbif.eu



Technical assistance in implementation of energy efficiency policies and projects is very important for development and improvement of institutional and legal framework, awareness raising activities, strengthening of administrative capacities and creation of preconditions for application of modern technologies in the energy efficiency field.

- **Dragica Sekulic, Director-General, Directorate for Energy Efficiency, Ministry of Economy, Montenegro**



MAIN PROVIDERS OF FINANCE IN THE WESTERN BALKANS



Green for Growth Fund (GGF)

GGF was initiated by EIB and KfW in December 2009 for an unlimited duration to promote energy efficiency and to reduce CO₂ emissions in its target region. GGF's investments seek to achieve a 20% reduction in energy consumption and/or a 20% reduction in CO₂ emissions. It is the first specialised fund focussing on energy efficiency (EE) and renewable energy (RE) in Southeast Europe. It complements existing programmes and funding sources and contributes to further innovations in financing and expanding the industries in Southeast Europe. GGF is supported by EIB, KfW, IFC, the German Federal Ministry of Economic Cooperation and Development, EBRD, Netherlands Development Finance Company (FMO), Oesterreichische Entwicklungsbank AG (OeEB), private institutional investors, and the European Commission. With committed capital in excess of €400 million in 2016, GGF is the largest EE and RE finance facility in the region; its geographic scope progressively broadened from the Western Balkans to include Eastern Neighbourhood and more recently North African and Middle East countries.

GGF provides refinancing and technical assistance to financial institutions (local commercial banks, non-bank financial institutions such as microfinance institutions and leasing companies, etc.) providing loans to households, businesses, municipalities and public sector for EE measures or RE projects. In addition, GGF can provide direct financing to RE projects, including solar, small hydro, small wind, biomass, etc.

So far, GGF has invested a total of €249 million in energy efficiency and renewable energy projects in South Eastern Europe, including €93 million in the Western Balkans, generating emission reductions of 272 KtCO₂ pa and energy savings of 874 GWh pa in the region in the process (161 KtCO₂ and 520 GWh in the Western Balkans respectively). An additional EU €20 million contribution in 2016 will support up to €100 million in new EE and RE investments in the Western Balkans over the next five years.

www.ggf.lu

Green for Growth Fund: Improving SME Competitiveness in Bosnia and Herzegovina

Dragoslav Siljak runs a successful furniture manufacture in Bosnia and Herzegovina. It specialises in the production of solid wood bedframes and related items.

Prior to the current production levels, his factory was not fully automated and registered high energy consumption. In order to improve efficiency and production Mr Siljak decided to invest in new machinery.

The new line cuts energy use by two thirds and ensures annual savings of €3,500. Further, material waste has reduced and quality has increased even at higher production rates.

"With our new CNC machine, we can now produce even better quality furniture in much less time. And our electricity consumption is only one-third of what it used to be."





Regional Energy Efficiency Programme (REEP)

The Regional Energy Efficiency Programme is an integrated package of finance, technical assistance and policy dialogue developed and funded by the European Bank for Reconstruction and Development and the European Commission and implemented jointly with the Energy Community Secretariat.

REEP operates across all countries in the region and consists of three windows:

1. Energy efficiency policy support and development of the energy service company or energy savings company (ESCO) concept;
2. Provision of funding and grants to financial institutions for on-lending to private and public sectors energy efficiency and renewables projects (WeBSEFF II);
3. Direct financing of larger renewables and energy efficiency projects of primarily industrial companies (WeBSEDF II).

Under Window 1, REEP delivers policy assistance in four priority domains: a). transposition of the Energy Performance of Buildings Directive (EPBD); b). public procurement rules and guidelines for the purchase of EE goods, works and services; c). utility EE policies; and d). regulatory framework supporting the ESCO concept.

Window 2 provides funding, incentives and technical assistance to local partner financial institutions to help them build their EE and RE activities. €92 million financing is available under the window. €50 million were committed to projects by the end of 2015, generating annual energy savings of 53 GWh and emission reductions of 93,000 tCO₂ pa.

Window 3 targets mid-size EE and RE projects requiring up to €6 million in limited recourse project finance, a structure not regularly available with commercial banks in the region. €73 million have been committed to date, mostly to RE projects that will reduce CO₂ emissions by 465,000 tpa.

A new €30 million EU contribution announced in July 2016 will support REEP Plus, an extension of REEP policy dialogue and technical assistance activities and a new residential lending facility available through local intermediaries. REEP Plus is expected to deliver €140 million of loans to 20,000 households and housing associations for projects in energy efficiency and renewables. A new municipal direct lending window has also been introduced.

www.wb-reep.org

Regional Energy Efficiency Programme: Reducing Carbon Foot Print and Electricity Costs in Serbia

The Municipality of Smederevo in Serbia decided to invest €1.2 million in a 18,000 m² building used by an automotive industry manufacturer and hosts its production facilities and administrative offices. The building is gas-heated and electricity-chilled.

The investment, with funding from REEP was intended to improve the building's thermal insulation and hence its overall energy efficiency performance. It is now complete and it has allowed for annual energy savings in excess of €120,000 and a 60% reduction in CO₂ emissions - the equivalent of 2,273 MWh/year and 465 tonnes CO₂.

The investment is self-financing with a payback period of just under ten years.





European Bank for Reconstruction and Development (EBRD)

Over the last ten years, the EBRD has invested close to € 2 billion in green projects in the Western Balkans. This includes investments in the development of the renewable energy sector and in the integration of electricity networks as well as energy efficiency investments in industry. The EBRD's main energy efficiency and renewables tool in the region is REEP/REEP Plus. In addition, the EBRD also operates the Kosovo Sustainable Energy Project (KoSEP), which supports investments in energy efficiency projects in residential and business sectors in Kosovo through loans and grants distributed via financial institutions. The project is supported by the EU and Norway. The EBRD is also an investor in the Green for Growth Fund.

www.ebrd.com



European Investment Bank (EIB)

The EIB is active in the energy efficiency and renewables in the region through dedicated credit lines to financial intermediaries, direct financing of projects, and through its global loans. Further, EIB also participates in the 2007 Energy Efficiency Finance Facility, with intermediated lending operations in Croatia and Turkey.

EIB is a founder and the second largest investor in the Green for Growth Fund.

www.eib.org



KfW

On behalf of the German Federal Government, KfW supports the drive of countries in South Eastern Europe for social and economic change.

Energy efficiency and renewable energy are important components of KfW's programmes in its partner countries in the region. They seek to tap into the region's considerable renewable and efficiency potential by targeting public buildings, district heating facilities, renewable energy (primarily small hydro plants, wind farms, biomass facilities) and the private sector (commercial and residential) through intermediaries.

Current operating facilities amount to approximately €130 million and some facilities benefit from EU support. In addition KfW is a founder of and the largest investor in the Green for Growth Fund and KfW will join REEP Plus to offer intermediated credit lines for SMEs and the Municipal sector under Window 2.

www.kfw-entwicklungsbank.de



World Bank Group (WB)

The World Bank is actively involved in supporting the development of the energy efficiency sector in the Western Balkans and current efforts primarily focus on the buildings sector, particularly public buildings. It produced in June 2014 a comprehensive report, Scaling-Up Energy Efficiency in Buildings in the Western Balkans, which provides a roadmap for how WB6 countries can achieve significant and sustained efficiency gains in public buildings, a promising areas for energy efficiency savings. The Energy Community Secretariat and the World Bank held a workshop for officials from the region to finalize a series of guidance notes designed to assist the implementation of large scale buildings EE projects across the region.

The World Bank is now working with governments in the region to actually implement many of the proposed measures. Programs have been recently completed in Macedonia and Serbia and are ongoing in Bosnia and Herzegovina, Montenegro and in Kosovo, for total investment in excess of \$180 million.

In parallel to this investment activity, IFC, the private sector arm of the WBG, works with financial intermediaries in the region to set up and finance dedicated EE instruments. It currently supplies technical assistance and sometimes funding to financial intermediaries in Albania and Kosovo. Finally, IFC is also a major investor in the Green for Growth Fund.

www.worldbank.org

SOURCES OF RETAIL FINANCE IN THE WESTERN BALKANS

This section maps out commercial banks and retail financial institutions providing energy efficiency and renewable finance in the Western Balkans, whether in partnership with the wholesale facilities reviewed in this brochure or not.¹

Albania



Institution	Target Market	Partner DFI	Website
BKT	Residential	GGF	www.bkt.com.al
Credins Bank	Residential	IFC(TA)	www.bankacredins.com
Fondi Besa	Residential	IFC (TA)	www.fondibesa.com
NOA Microfinance	Residential	IFC (TA)	www.noa.com.al
Procredit Bank	SMEs/Residential	-	www.procreditbank.com.al
SocGen Albania	Residential	IFC (TA)	www.societegenerale.al
Union Bank	Residential	IFC (TA)	www.unionbank.al

Bosnia and Herzegovina



Institution	Target Market	Partner DFI	Website
NLB Razvojna Banka	SMEs/Residential	GGF	www.nibrazvojnabanka.com
Partner MKF	Residential	GGF	www.partner.ba
Procredit Bank	SMEs	-	www.procreditbank.ba
Raiffeisen Bank	SMEs/Residential	KfW	www.raiffeisenbank.ba
Raiffeisen Bank	SMEs	REEP/WebSEFF 2	www.raiffeisenbank.ba
Unicredit	SMEs	REEP/WebSEFF 2	www.unicreditbank.ba
Unicredit Bank Banja Luka	Residential	GGF	www.unicreditbank-bl.ba

Kosovo



Institution	Target Market	Partner DFI	Website
AFK	SMEs/Residential	EBRD/KOSEP	www.afkonline.org
AFK	SMEs/Residential	GGF	www.afkonline.org
BPB Banka per Biznes	SMEs/Residential	EBRD/KOSEP	www.bpbbank.com
BPB Banka per Biznes	SMEs/Residential	IFC (TA)	www.bpbbank.com
KRK	SMEs/Residential	EBRD/KOSEP	www.krk-ks.com
NLB Prishtina	SMEs/Residential	IFC (TA)	www.nlbprishtina-kos.com
Procredit Bank	SMEs/Residential	-	www.procreditbank-kos.com
TEB Bank	SMEs/Residential	EBRD/KOSEP	www.teb-kos.com

¹ The lists provided in this section have been compiled based on the information publicly available at the time of producing this publication. Target markets for each institution are indicative only.

The former Yugoslav Republic of Macedonia



Institution	Target Market	Partner DFI	Website
Halkbank	Residential	GGF	www.halkbabk.mk
Halkbank	SMEs	MBDP	www.halkbabk.mk
Komercijalna Banka	SMEs	MBDP	www.kb.com.mk
NLB Tutunska Bank	SMEs	REEP/WebSEFF 2	www.nlbtb.com.mk
NLB Tutunska Bank	SMEs	MBDP	www.nlbtb.com.mk
Ohridska Banka SG	SMEs	REEP/WebSEFF 2	www.ohridskabanka.mk
Ohridska Banka SG	SMEs	MBDP	www.ohridskabanka.mk
Ohridska Banka SG	SMEs	GGF	www.ohridskabanka.mk
Procredit Bank	SMEs/Residential	-	www.procreditbank.com.mk
Unibank	SMEs	MBDB	www.unibank.com.mk

Montenegro



Institution	Target Market	Partner DFI	Website
Alter Modus	SMEs/Residential	GGF	www.altermodus.me
Atlasbanka	Local authorities	-	www.atlasbanka.com
Crnogorska Banka	Komercijalna SMEs	-	www.ckb.me
Hipotekarna Banka	SMEs	-	www.hipotekarnabanka.com
Hypo Alpe-Adria	Residential	-	www.hypo-alpe-adria.co.me
Investiciono Razvojni Fond CG	Local authorities/SMEs	EIB	www.irfcg.me
Komercijalna Banka Budva	SMEs	-	www.kombankbd.com
NLB MOntenegrobanka	SMEs	KfW	www.nlb.me

Serbia



Institution	Target Market	Partner DFI	Website
Banca Intesa	SMEs	REEP/WebSEFF 2	www.bancaintesa.rs
Banca Intesa	SMEs/Residential	GGF	www.bancaintesa.rs
Banca Intesa	SMEs/Agriculture/Residential	KfW	www.bancaintesa.rs
Čačanska banka	SMEs/Residential	GGF	www.cacanskabanka.co.rs
Čačanska banka	SMEs	KfW	www.cacanskabanka.co.rs
Credit Agricole Srbija	SMEs/Residential	-	www.creditagricole.rs
Erste Bank	Renewables	KfW	www.erstebank.rs
Eurobank	SMEs/Residential	SEEP	www.eurobank.rs
Halkbank	SMEs/Residential	GGF	www.halkbank.rs
Hypo-Alpe-Adria	SMEs/Residential	-	www.hypo-alpe-adria.rs
Intesa Leasing Beograd	SMEs/Residential	GGF	www.intesaleasing.rs
Komercijalna Banka	SMEs/Residential	GGF	www.kombank.com
Komercijalna Banka	SMEs	REEP/WebSEFF 2	www.kombank.com
NLB Bank	Residential	-	www.nlb.rs
Procredit Bank	SMEs/Agriculture	GGF	www.procreditbank.rs
Procredit Bank	SMEs/Residential	-	www.procreditbank.rs
Raiffeisen Bank	SMEs	KfW	www.raiffeisenbank.rs
Sberbank	Renewables	-	www.sberbank.rs
SocGen Serbia	SMEs/Residential	-	www.societegenerale.rs
Unicredit	Local authorities	MIDF/EBRD/KfW	www.unicreditbank.rs
Unicredit	SMEs/Renewables	GGF	www.unicreditbank.rs
Unicredit	SMEs/Residential	-	www.unicreditbank.rs



European Commission
Directorate General Neighbourhood Policy and
Enlargement Negotiations
Western Balkans Regional Cooperation Unit
WBIF Secretariat

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