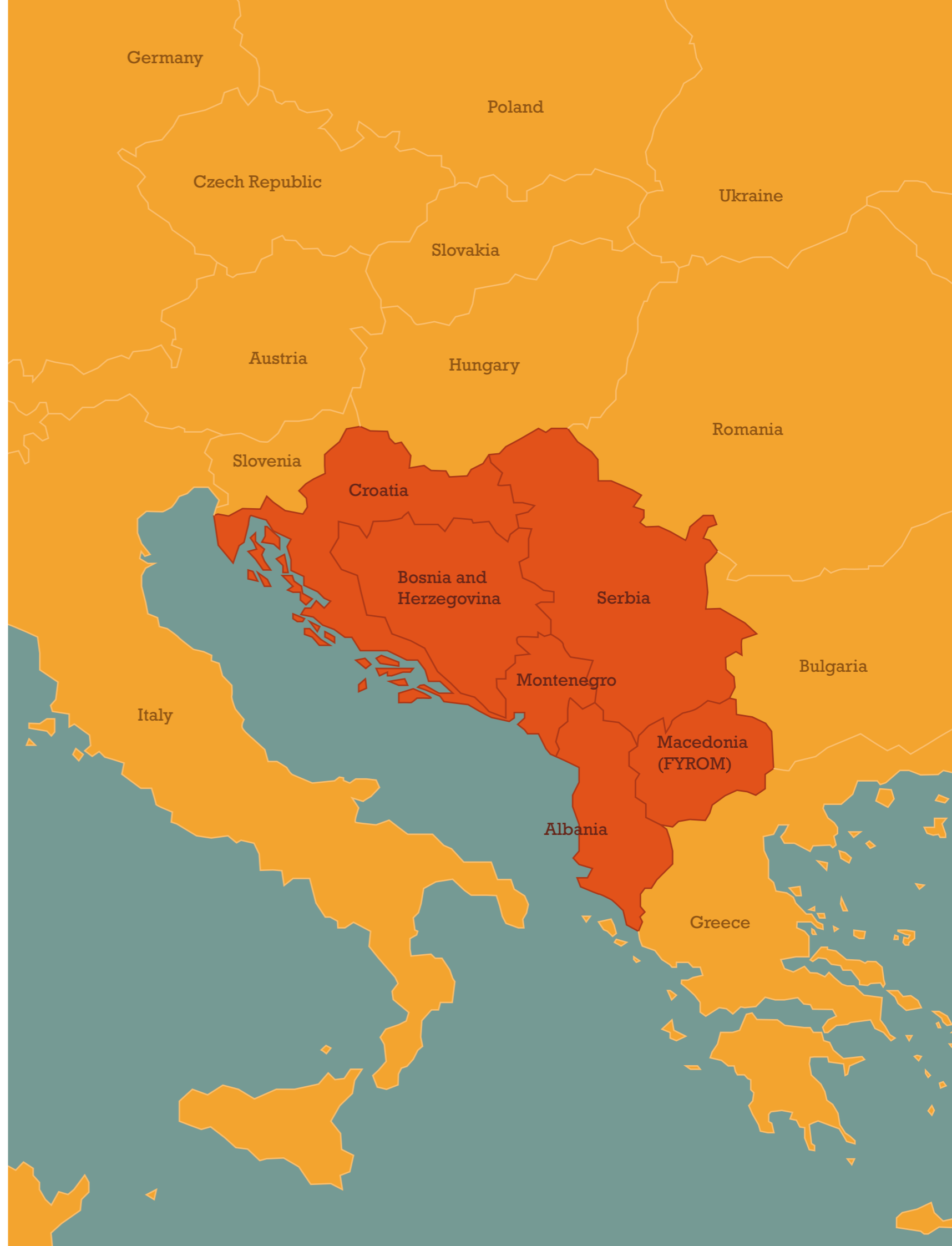


Renewable Energy & Energy Efficiency in the Western Balkans

Western Balkan countries are struggling to attract investments in renewable energy and energy efficiency projects despite the handful of improvements in policy and regulatory frameworks. In this challenging context, what are the critical elements to mobilize finance in the region?

Writer: Elisa Asmelash



Over the past two decades, countries in the Western Balkan Region¹ have made significant policy and legislative progress in their renewable energy and energy efficiency sectors. Driven by prospects of integration into the European Union, together with pressures from membership in the Energy Community to set national renewable energy targets, countries in the region are on the road to rebuilding their entire energy systems.

On the basis of a shared commitment to market reforms and the operation of an integrated regional market, they have advanced in developing targets and policies to promote the diverse renewable energy sources

that are abundant across the region. This policy progress offers the best opportunity to build sustainable and efficient energy sectors that can exploit and develop the enormous potentials in renewable energy and energy efficiency sectors.

Viewed from a global perspective, investment needs in terms of sustainable energy infrastructure in the region remain significant and there are very few signs of concrete investment in renewable energy and energy efficiency projects going forward. This is the key message of the UNECE Renewable Energy Status Report, which is the result of a joint effort of the United Nations Economic Commission for Europe

(UNECE) and the Renewable energy Policy Network for the 21st century (REN21), in collaboration with the International Energy Agency (IEA). The report covers 17 selected UNECE member states², including countries in the Western Balkan region, all facing common challenges as they develop renewable energy solutions and improve energy efficiency. While Western Balkan states are doing better than the other countries covered by the report, the enabling environment needs to be improved in order to attract more investments in renewable energy and energy efficiency to match up with its potentials.

Renewable Energy Potential

Energy markets in the Balkan Region are characterized by two main features:

1. They all are net energy importers: all countries in the region depend heavily on imported fossil fuels, with energy imports accounting for 44% of total energy use and costing over EUR 3 billion³.

2. Energy subsidies are rooted in all countries' energy systems, characterizing the overall political strategy in the region, as governments tend to invest large amounts of money in energy subsidies because the sector is seen as a crucial engine of growth. According to a 2015 study of the International Monetary Fund (IMF)⁴, two of

the six Balkan countries, Serbia and Bosnia Herzegovina, are in the world's top ten of countries with the highest percentage of energy subsidies in the Gross Domestic Product (GDP).

In addition to these two components, energy demand is projected to increase by 70%

Images: Fierza Hydroelectric Power Station in Albania.
Source: Tobias Klente



over the coming two decades⁵, and without a sufficient and reliable energy supply to maintain economic growth the threat of a regional energy crisis is around the corner. All this creates the need in the region to diversify energy supplies and technologies towards deploying more renewables.

Hydropower and traditional biomass represent the backbone of the electricity systems in the region (Figure 1). In Albania, the power system is run almost exclusively on hydropower and in Montenegro hydro represents more than half of electricity produced in the country, while Serbia was third among the 17 UNECE countries in hydropower production (11,109 GWh). All countries in the region are largely endowed with biomass resources, mostly used in the form of fuelwood in the heating and cooking sectors. However, this persistent use of traditional biomass has harmful and damaging environmental and health effects and calls for a replacement by modern biomass and renewable energy solutions for both district and local heating purposes.

In 2014, other renewable power technologies, such as solar PV, onshore wind and modern biogas, have been experiencing increases in installed capacity. Similarly, the development of all renewable power tech-

nologies is underway: wind energy projects are in the planning stages in Serbia, Bosnia and Herzegovina and Montenegro, where small hydro capacity is also being tendered.

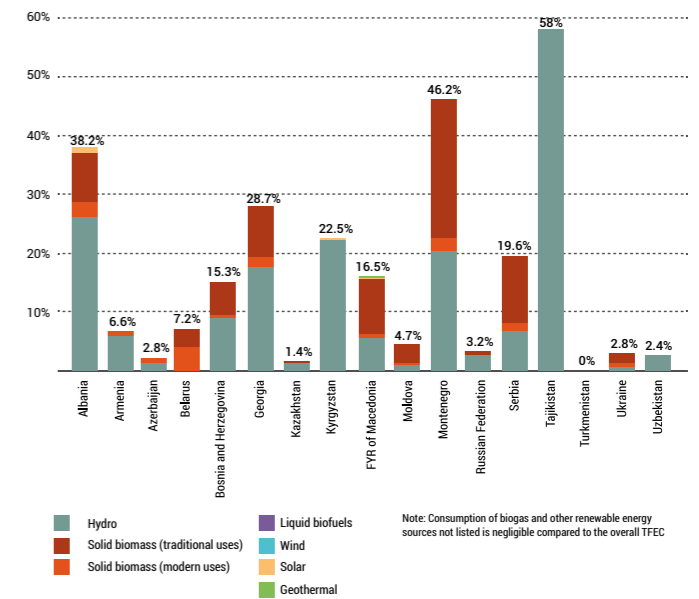


Figure 1: Share of renewable energy in total final energy consumption, 2012.
Source: UNECE Renewable Energy Status Report, 2015, REN21

Main Challenges

Despite improvements in policy and regulatory frameworks, the region is still facing major barriers in attracting investments and blocking the full transition to renewable energy and energy efficiency. These barriers can be grouped into three main categories.

Institutional, Regulatory and Financial Constraints

Attracting investors and mobilizing capital in order to fund renewable energy projects has proved to be very challenging, as national energy markets do not provide for stable and transparent regulatory frameworks for such investments. Policy reforms need to be integrated into robust and long-term energy strategies, and especially to ensure a sustained commitment to their concrete implementation. This first policy-related element can be broken down into three sub-components:

a. Policy credibility, transparency and stability. While support regimes, in the form of regulatory policies and framework are in place in almost all Balkan countries, the main challenge is the actual implementation of policies, taking them to the 'operational' stage. Weak governance, widespread corruption, inefficient government bureaucracy and frequently changing policies are just one side of the picture. To this, one should add two other key elements: (i) The complexity of government structures, which is a tedious and heavily bureaucratic machine in all Balkan countries. The lack of coordination and communication in the provision of information between different levels of administration including agencies and institutions is a major problem in all Western Balkan countries. In Bosnia and Herzegovina, there is no legislative framework for renewable energy at the national level. Regulatory policies have been addressed by two entities, the Federation of Bosnia and Herzegovina and

Republika Srpska, both with their own targets and laws regulating renewable energy. (ii) the lack of serious political commitment, which is due partly to the lack of awareness on the importance of renewable energy and energy efficiency and partly to other pressing regional issues that are currently featuring higher in the countries' political agenda, such as the migrant crisis.

b. Long procedures to obtain authorizations and permits for projects. Besides issues of land property rights definition in Albania, for example, the multiplicity of authorities, such as state water companies as well as local and national authorities, create complex layers of permits, authorizations and licences. The long and bureaucratic permitting process for starting an energy project deters all investment, but especially foreign investment, for whom the procedure is time consuming. The REN21 report highlights how the lack of a sound secondary regulation, results into a mod-

est installed renewable energy capacity for power generation, which reaches less than 60 MW of installed capacity. For instance, in Serbia, the lack of a bankable power purchase agreement (PPA) for power plants above 50 MW has resulted in the deployment of small-size renewable energy projects (typically up to 1 MW for biogas, solar PV and small hydro, and up to 10 MW for wind power).

c. Lack of skilled and experienced human capacity. This is particularly evident at administrative and regulatory levels, as well as at project planning/developing levels. The capability of administrators needs to be reinforced to ensure that they have the capacity and means to develop strategies and implement policies encompassing better market regulations and especially renewable energy and energy efficiency developments. The potential of renewable energy is not politically recognized despite its significant importance in the region. As a result, countries are far from being able to offer adequate training to develop the required skills and knowledge in the renewable energy sectors at national and regional levels; and the sectors do not offer employment conditions that are adequate enough to attract and retain staff. Expertise is often missing at project planning levels among renewable energy developers with a local and regional presence and especially in structuring comprehensive bankable solutions in order to attract project financing from international financial institutions (IFIs).

Fragmented Markets

All six Western Balkan countries have made progress in aligning their regulations and operations with the EU standards, but energy systems in the region are fragmented, and cooperation between them is lacking. Available resources are widespread across all six countries and despite their strategic geographic position at the crossroads between energy-rich areas (Russia and Central Asia) and energy consuming areas (Central and Western Europe), they have not been successful in capitalizing on this key location. Most markets suffer from power shortages, electricity imbalances,

which suggests that they can largely gain from a regional integration and cooperation of markets, which could allow to have a diversified energy mix and thus optimize production capacities. Besides, the reduced size of most national markets in the region coupled with their low energy density allows for little and almost no opportunities for economies of scale in production.

Limited Funding and Small-size Projects

The high capital-intensity of renewable energy projects demands for large volumes of investments and funds to be available well in advance of operations. However, most countries in the region are characterized by a lack of financial solidity and obstructed access to finance. In the countries' unstable regulatory context, local project developers (who most of the times lack capital to start

a project) have little if no possibilities to borrow money despite the different finance facilities available. Similarly, foreign investors lack confidence in the region. This is a combination of two main factors:

a. Internal political and regulatory risks, such as potential regulatory changes, together with uncertainties around the length of the processes and the timeframe of the return on investment inhibit private sector financing.

b. Political instabilities in neighbouring countries (especially of EU members) create a perceived risk of possible spill-over effects in Western Balkans countries which adds to their shaky national policy situation.

Besides these regulatory risks, all Balkan countries are characterized by small markets with small projects that are less attractive than bigger projects for international investors, including banks like the European Bank for Reconstruction and Development

(EBRD) and the European Investment Bank (EIB) and create significant problems in obtaining private financing for national/local investors. Small-scale projects struggle to attract funding from larger financiers. To put this in perspective, because the initial investment involved is relatively small – compared to medium-large projects – limited project financing is simply not feasible. As suggested by a 2013 World Bank report⁶, economies of scale in due diligence are significant, and many larger financial

institutions will gingerly if not unwillingly consider small projects. International commercial banks are generally not interested in projects below \$10 million, while projects up to \$20 million find it difficult to stimulate large investors' attention as well. And it remains difficult to raise funds for small renewable projects from local commercial

banks too. Given their limited resources to make large-scale loans, domestic and regional banks operating in smaller economies have lower limits for projects' costs, and overall they have little experience in developing bankable renewable energy and energy efficiency projects.

How to Mobilize Finance in the Region

Renewable investors and developers need to be wary of several factors when locating their projects. This is particularly evident in Western Balkan countries where investment needs for renewable energy and energy efficiency are substantial (see Figure 2). In this challenging context, there are three critical elements to mobilize finance in the region:

1. Policies and strategy formulation must be transparent, involving broad public consultations and seeking input from academia, energy and environmental associations, as well as consumer organizations. Investments in the production of research and studies on the economic potential and benefits of renewable energy technologies and energy efficiency solutions in the region is key to raising awareness amongst the wider public, including government institu-

tions. Having a comprehensive view of the status and potential of the regional renewable energy industries, including reliable statistical data, could act as a solid base and starting point for any policy/regulatory intervention, thus better aligning reality and policy-making. Leaving the reform process unfinished will perpetuate current vulnerabilities and leave markets at the mercy of under-regulation and speculation. Solid and transparent market-based reforms have the potential to reassure investors and consequently to attract and trigger new investments, which are highly needed to establish more sustainable energy systems. Serbia offers a good model by updating its national guidelines in 2013 for investors interested in renewable energy projects, such as wind, solar, hydro and biomass, and has issued the first national investor guide for solar thermal.



Images: 34.2 MW wind park near Dubrovnik, Croatia.
Source: WP Rudine

Notes:

1. The region of the Western Balkans, a term coined by the European Union in the late 1990s, includes Albania, Bosnia and Herzegovina, Croatia, Kosovo, the former Yugoslav Republic of Macedonia, Montenegro and Serbia. Heating, Ventilation, Air Conditioning
2. 7 UNECE Member States located in the South East and Eastern Europe, the Caucasus and Central Asia, and namely: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Montenegro, Russian Federation, Serbia, Tajikistan, The former Yugoslav Republic of Macedonia, Turkmenistan, Ukraine and Uzbekistan.
3. "Western Balkans: Scaling Up Energy Efficiency in Buildings" World Bank Group, June 2014
4. Coady D., Parry I., Sears L., Shang B., 2015 "How Large Are Global Energy Subsidies?", International Monetary Fund (IMF) Working Paper WP/15/105.
5. "Final Report- Western Balkans: Scaling Up Energy Efficiency in Buildings" World Bank Group, June 2014
6. Hussain, Mustafa Zakir. 2013. Financing renewable energy options for developing financing instruments using public funds. Washington DC : World Bank.

2. Simplify solutions for obtaining concessions and authorizations for constructing renewable energy facilities, including permits for network access and licences for power generation and sale. Long and cumbersome permission granting procedures deter investors from considering, let alone investing, in any type of renewable energy project. Renewable energy is a bankable investment, but it is risky and calls for long-term commitments as well as clear and simplified procedures. According to the REN1 report, Macedonia has adopted a number of legislative amendments reducing the number of documents that need to be submitted as well as the number of procedures that renewable energy investors must follow. Similarly, Serbia updated PPAs for renewable energy in 2014 and Montenegro concluded 21 concession contracts for the construction of 41 small hydro plants (6 of which are already in operation) and issued construction permits for two wind farms (Krnovo and Možura).

3. Undergo a two-fold reform of the market structure by targeting the creation of a regional market, thus appealing to be more attractive for private investors than the current small individual markets. An integrated regional market with physical and regulatory cross-border connections can generate liquidity. Cooperation could also include a financial/normative perspective,

Private involvement in the energy sector is becoming increasingly important as public funding diminishes. International financial institutions and facilities, such as the EBRD and EIB, play a pivotal role in providing technical assistance programs to project developers in designing bankable projects, in lending facilities for renewable energy and energy efficiency financing and especially in encouraging joint facilities, pooling grants from different donors and sources, in which the international bank plays a role of guarantor. In addition, the Energy Community Secretariat is making strides in fostering inter-regional cooperation in terms of policy-making, energy market design, awareness raising and capacity building to improve the overall regulatory environment to attract foreign direct investment. The road to increasing investment flows in renewable energy projects in the Western Balkans is full of obstacles, but current trends suggest that these challenges will be overcome and integrate more with Europe.

EU members which are still struggling to achieve their internal 2020 targets, to add it to their capacities; and the possibility of physically transferring capacity, could create economic incentives for Western Balkan countries to develop further and beyond the targets set by the Energy Community and/or by internal policies.



Figure 2: Renewable Energy Investment in 2004-2014. (billion USD)
Source: UNECE Renewable Energy Status Report, 2015, REN21

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Revelle Group is a development consultancy working in developing countries and emerging economies in three key sectors: energy, environment and climate change and sustainable economic & social development. Revelle works with governments and international organisations to help create visions, develop roadmaps and implement strategies that tackle today's main global challenges for a more sustainable world.



Key Criteria for Deploying Renewable Energies in the West Balkans

Writer: Qendresa Rugova



offtake is also of significant importance as it manages volume risk. Mandatory offtake should be guaranteed for the entire project lifetime or alternatively projects should be allowed to access wholesale power markets or to enter bilateral agreements with third parties.

Local RES developers: Develop local capabilities to bring quality projects to the market. This is important as foreign investors often seek joint venture partners to mitigate local risks. Technical assistance programs from IFIs¹ are instrumental in providing funding as well as knowledge transfer in key technical and financial areas.

Permitting: Develop a streamlined and transparent permitting process. Permitting-related risks are especially important to equity investors who require clarity to be able to commit to developing renewable energy projects. Usually such regulatory obstacles discourage investors from investing in a given region and, conversely, to favor others in the global competition to attract capital. In addition, permitting and all other development costs are becoming increasingly more important to investors as the ever-declining technology costs means that soft costs, such as non-hardware costs, represent a bigger share of total project costs and therefore have a higher impact on project profitability.

Grid access: Lack of transparency when it comes to accessing national grids is often a main challenge for investors. National governments need to provide clear information

on grid availability, technical specifications, connection points as well as the permitting steps to be granted access to national grids.

Project agreements: Project finance structures require robust project agreements to allow for risks to be transferred to parties that are best able to manage them. In the West Balkans, it is often challenging to conclude bankable agreements with strong, creditworthy counterparts able to undertake and deliver on those agreements. Such limitations occur in all key areas (power offtake, EPC² companies, O&M³ providers and fuel suppliers for biomass and biogas plants). Limitations on the availability of counterparts make it difficult to anticipate and guarantee long-term stability in terms of price and quality. The long-term aspect is particularly important as investors and lenders need to rely on the fact that such parties will be in the market for the life of the project.

EPC and O&M related risks in renewables are typically easier to manage as they can be passed onto third credible reputable parties via long term agreements. However, the most important agreement remains the PPA which if not properly structured could expose investors to market and incumbent utility credit risk. To accommodate this, strong and bankable PPAs in line with international standards should be developed.

Qendresa Rugova is a corporate and project finance adviser focused in the energy industry. She specializes in renewable energy, emerging trends in clean technologies and financing models.

Notes:

1. International Financial Institutions
2. Engineering, Procurement & Construction
3. Operations & Maintenance