



## CONCLUSIONS AND RECOMMENDATIONS BY TYPE OF RISK/BARRIER

### 1. Power Market Risk

#### Targets

- 2020 and 2030 targets: Need to have clarity amongst local institutions but also towards the Energy Community (EnC) on the methodology to quantify biomass consumption in households and progress made towards the targets. Inconsistency with biomass data as reported in statistics. Impact and consequences on the achievement of 2020 and the definition of baseline for 2030 targets?

#### Overarching Issues

- Address the key issue of fossil fuel subsidies (especially coal) and other market distortions as a prerequisite for energy transition.
- Implement WB6 Road Map, adopted by the BiH Council of Ministers.
- Adopt an amended Law on Transmission of Electric Power, Regulator and Electricity Market of Bosnia and Herzegovina in line with EnC requirements and obligations.
- Adopt a law and regulations on district heating and heat energy systems in Bosnia and Herzegovina

#### RE support scheme

- Implement a support scheme based on feed-in premiums (FiP) through capacity auctions for Large Wind/Solar.
- Adopt project-specific auctions on pre-selected projects for Hydro.
- Adopt administratively set FiP for small renewable energy sources (RES) (threshold to be determined).
- No auctions for biomass, support scheme to be based on administratively set feed-in tariffs (FiT) or FiP. Requests to incentivize the sector,

either at the production side (especially regarding heat and Combined Heat and Power (CHP)) or the fuel side (incentives to produce modern feedstocks).

- Retain FiT regime for Small-scale Renewables (threshold of small-scale eligibility to be defined) and include additional mechanism for community energy initiatives and self-consumption.
- Consider increasing the money inflow of the fund for encouraging the construction of RES based generating facilities.

## **2. Permits Risk**

- Simplify, streamline and rationalize permitting process, currently highly time-consuming. Devise supporting measures aimed at improving the quality of studies required for permits.
- Strengthen the implementation and enforcement of environmental assessment procedure for Strategic Environmental Assessment at the spatial planning and strategic planning levels, and for Environmental Impact Assessment (EIA) at project level.
- Develop and adopt missing spatial documents (Spatial Plans and Detailed Spatial Documents) at all government levels, in particular the Spatial Plan of the Federation of BiH.
- Implement the Recommendations of the Legal Framework Analysis for the Removal of Obstacles to Investment in the Energy Sector of USAID EIA and GIZ ProRE, which already have been adopted by the entity governments, in particular the recommendation for the introduction of electronic issuance of permits (e-permitting).
- Follow the implementation schedule for permitting foreseen in the Road map of WB6 Initiative, recently adopted in the Council of Ministers' decision.
- Strengthen inter-institutional coordination and monitoring for improving the permitting process.
- Strengthen the implementation and enforcement of environmental assessment for Strategic Environmental Assessment already at spatial planning, strategic and planning level and for Environmental Impact Assessment (EIA) at project level.

## **3. Social Acceptance Risk**

- Establish a community energy framework and assign separate, additional quotas for projects under its purview and/or adopt specific incentives. Define what participation form will give the "community" dimension (e.g. municipalities, cooperatives and citizens' organisations, etc.).
- Establish net billing of distributed/small scale RES.
- Examine retail prices and make sure they reflect the real cost of electricity, so as to showcase the benefits of cost-competitive RES.
- Reinforce effective public access to information and public participation in decision-making procedures for legislation, plans, policies, programmes and for specific projects (critical for local communities) Actively promote awareness on benefits of energy transition for citizens, rural development, and the economy as a whole.

#### 4. Resource and Technology Risk

- Accurately map, assess and quantify renewable energy potentials in the region, taking also into account environmental limitations in spatial planning such as protected areas.
- Establish inter-institutional coordination for the long-term monitoring of biomass potentials, by considering the recently established biomass monitoring system, with the support of UNDP and GIZ. Complete biomass data reconciliation activities for previous reference years and adopt clear, transparent and verifiable methodology for biomass data for the future.
- Improve quality, reliability, consistency and reporting of energy-related statistics.
- Create a positive environment and incentives for the development and production of technologies for the use of RES on the territory of BiH.

#### 5. Grid / Transmission Risk

- Proceed with unbundling of transmission system operator (TSO) / distribution system operators (DSOs).
- Address issue of grid losses, particularly distribution grid losses, for example by incentivizing loss-reducing capacity deployment approaches and technologies.
- Address and increase the limits related to the installed capacity allowance for interconnecting wind power plants at the transmission system in BiH.
- Fully regulate the issue of power balancing for generating facilities based on intermittent renewable energy sources.

#### 6. Counterparty Risk

- Gradually move away from subsidised approach to market-based approach for RE procurement, to ensure long term financial sustainability of the support scheme.
- Identify possible issues with the power purchase agreement (PPA) and adopt a PPA template in line with international best practices on bankability.

#### 7. Financial Sector Risk

- Support and help create “strong” local developers and project owners both financially and technically, to attract equity investment.
- Facilitate access to capital to alternative investment structures, such as communal energy initiatives, cooperatives, citizens (for distributed generation), etc.

<b>8. Political Risk</b>
<ul style="list-style-type: none"> <li>• Facilitate communication, exchange of information and coordination on goals and methodologies between different centres of administration and between stakeholders within the same administration.</li> <li>• Re-evaluate the role of concessions. Assign concessions in a transparent and fair manner, ensuring maximum benefit both for the society and for the market.</li> <li>• Improve the general “ease of doing business” environment by simplifying and digitalising administrative processes.</li> <li>• Coordinate and inform about planned projects to address possible transboundary concerns.</li> <li>• Enable participation of civil society organisations in strategic planning of the sector.</li> </ul>
<b>9. Currency / Macroeconomic Risk</b>
<ul style="list-style-type: none"> <li>• No recommendation.</li> </ul>

### **Proposed Nexus criteria to be applied for the assessment for sustainable RE deployment**

In order to be successful, a renewable energy (RE) project must address the local context: scoping and designing, establishing feasibility, impact, benefits. Indeed, RE developers are under increasing scrutiny when it comes to environmental as well as social impact (the civil society plays an effective role safeguarding local interests). Today, this pressure is not sufficiently balanced by incentives to RE investments: environmentally friendly RE solutions (e.g. waste valorisation) and RE investments by non-energy investors (e.g. in agriculture) are not explicitly incentivised, and subsidies remain largely misplaced (fossil fuels). Furthermore, because of the interconnectedness of the power grid, large scale RE projects can have significant transboundary impact (direct, in the case of hydropower, or indirect in the case of non-hydro RE), and good transboundary relations become key for their development. Adopting a “nexus criteria” to RE deployment means maximising the positive synergies that exist across sectors and countries (these can open up new financing opportunities) while minimizing environmental problems and/or risks to human health.

## 1) Maximising synergies: opportunities for investing in RE while achieving cross-sectoral benefits

Type of RE	Benefits for water sector, agriculture, forestry, rural development	Environmental & Social impact	Transboundary impact
Hydropower	<p>The construction of multi-purpose hydropower (medium to large) can provide multiple benefits:</p> <ul style="list-style-type: none"> <li>• Enhanced flood control</li> <li>• Enhanced drought resilience</li> <li>• Improved access to water (for different uses, primarily irrigation)</li> <li>• Ensured environmental flows (ideally backed by appropriate legislation)</li> </ul> <p>Most importantly in Bosnia and Herzegovina, key benefits of further hydropower deployment would be a stable production of energy (also needed to integrate VREs), and flow regulation/flood control.</p>	<p>Large hydro can significantly benefit local communities, but it is often the case that these end up bearing most of the costs (notably loss of land) and see little benefits in terms of impact on local economy.</p> <p>When it comes to micro hydropower, the cumulative environmental impact of scattered installations vis-a-vis low production levels makes this technology highly controversial, particularly (but not only) in environmentally valuable areas.</p>	<p>Coordination of hydropower cascades (existing and future) can improve flood control and potentially damages from low flows at transboundary level.</p>
Bioenergy (biomass)	<p>Wood biomass a highly valuable RE source for Bosnia and Herzegovina. Potential for heat and CHP production at different scales.</p> <p>Improving the sustainability of biomass means: 1) sustainable forestry (protection/valuing of resource) and 2) sustainable value chain (investments in transformation/production processes and efficient utilization). Notably, one of the objectives of forestry sector should be ensuring sustainable fuel supply to producers in the long-term (e.g. fast-growing trees/bushes).</p> <p>Bioenergy is also a way of adding value to waste and agricultural and forestry residues in particular.</p>	<p>The sector holds concrete opportunities for rural development and job creation in a field where local knowledge and skills are already well-developed.</p> <p>Many benefits would derive from biomass efficiency (most notably the decrease of indoor and outdoor pollution) but this is not currently incentivized.</p>	<p>Sustainable forestry a means for flood protection and sediment control.</p> <p>Protection of transboundary forests can be a regional climate mitigation effort.</p>

Wind and solar	Small-scale, community-level projects could improve access to energy (e.g. remote villages or touristic areas) and clean solutions for productive uses (e.g. irrigation, pumping). The use of clean energy in agriculture could support the development of green-branded agricultural productions. The possibility of net metering would provide a significant incentive.	Power production from wind and solar would reduce reliance on technologies with higher environmental impacts. New technologies can bring new employment opportunities and a growth of green jobs. Utilizing locally available sources and consuming them nearby decreases the need for long transmission and distribution line construction, operation and maintenance, decreasing thereby energy losses.	Adopting a regional approach to large wind and solar development (leveraging the existing transmission infrastructure between countries) would allow for a more optimal use of resources.
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## 2) Addressing trade-offs: a checklist for addressing negative impacts of RE

Proposed criteria	Current application of criteria
<b>Environmental assessment</b>	
EIA/SEA in a domestic context	EIAs: Yes, but usually there are issues in overall quality, monitoring and implementation. SEAs: Not always performed, issues with quality. Overall: Ensure stronger public participation
EIA/SEA in a transboundary context	No
<b>Strategic assessment and planning</b>	
Domestic inter-sectoral impact assessment of RE projects	Not assessed
Transboundary inter-sectoral impact of RE projects	Not assessed
<b>Public participation and transparency</b>	
Level of domestic public participation in new RE projects	Weak

Level of transboundary public participation in new RE projects	No
Level of awareness through public campaigns and education programmes	Weak
<b>Sustainable hydropower deployment and usage Guidelines</b>	
Application of domestic sustainable hydropower guidelines	No
Application of regional /basin level sustainable hydropower guidelines	No
<b>Sustainable RE Deployment Guidelines</b>	
Application of domestic sustainable RE guidelines in line with SDGs	No
Application of regional sustainable RE guidelines	No
Regional inter-sectoral biomass deployment and usage Guidelines	No
<b>Regional Sector-specific dialogue &amp; coordination</b>	
Energy sector regional dialogue	High (EnC)
Water sector regional dialogue	Medium (ISRBC)
Food sector regional dialogue	Low
<b>Inter-sectoral dialogue &amp; coordination</b>	
Domestic inter-sectoral coordination	Low
Regional inter-sectoral coordination	No
<b>Environmental coordination</b>	
Regional coordination on climate and environmental targets (NDCs, etc)	No/weak?
Regional coordination on environmental standards	Yes (UNECE multilateral environmental agreements, transposition of the EU acquis),
Regional coordination on integrated nexus policies (e.g. sustainable development)	Low (only exchange of experience, in UNECE)
Legal and institutional frameworks at transboundary level	Yes (ISRBC, ICPDR)
Procedures for notification and consultation about planned projects	Not assessed