

A REGIONAL STRATEGY FOR SUSTAINABLE HYDROPOWER IN THE WESTERN BALKANS

TECHNICAL WORKSHOPS, PODGORICA, 30-31 MARCH 2017, TIRANA, 11-12 MAY 2017 CONCLUSIONS OF THE EUROPEAN COMMISSION

The Western Balkans region needs new sources of energy production. In the coming years, it must decommission aging and polluting fossil-fuel generation capacity and reduce the energy intensity of economies by implementing ambitious targets for energy efficiency.

In the context of replacing carbon-intensive generation capacity, and in view of achieving the 2020 renewable energy targets established by the Western Balkans countries in their respective National Renewable Energy Action Plans as part of the obligations agreed under the Energy Community Treaty, all renewable energy sources will play a strategic role in the new energy mix.

In view of the considerable potential of the region due to its topographic and hydrologic characteristics, hydropower already plays a significant role in the renewable energy contribution. This role could be strengthened.

The Western Balkans region has a strong tradition of hydropower development and hydropower already contributes to 49% of the electricity production of the six countries – with variations between Albania already producing almost 100% of its power from hydro, and Kosovo* where hydropower contributes a mere 2.2% ⁽¹⁾. However, with 90% of the region's capacity constructed before 1990, of which about 10% before 1955, infrastructures are aging and at risk after years of under-investment. Rehabilitating existing structures is thus crucial to safeguard the present contribution that hydropower makes to the region's energy mix.

Considering the limited capacity increase that can be achieved by upgrading structures during rehabilitation, and in order to meet growing energy demands, new generation plants are likely to be developed in addition across the region.

Further hydropower development nevertheless poses a number of challenges.

Hydropower is a relatively clean energy, mostly free of CO₂ emissions during operation. However, it can have large, negative impacts on the environment and, in particular, on water resources, the ecological quality of the rivers and the associated ecosystems and biodiversity. The region's uniqueness, in terms of nature and biodiversity, imposes an additional obligation on all partners to preserve the environment as well as the social, economic and ecological services it provides. This implies that any new plant needs to be developed carefully to prevent environmental damages and mitigate risks, in particular when they are planned on protected, high natural value or biodiversity sites.

In addition, there is a scientific consensus that the Western Balkans will suffer disproportionately from climate change. Precipitation is expected to decrease, especially during the summer months. This will result in a progressive decline in water availability, compromising energy generation from hydropower sources. At the same time, changes in climate patterns and more frequent and extreme weather events (such as those that caused the tragic floods in 2014) will have to be integrated in future development of hydropower.

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

⁽¹⁾ Montenegro: 59.8%; Serbia: 51.0%; Bosnia and Herzegovina: 38.5%; the former Yugoslav Republic of Macedonia: 21.6% (average values for the period 2005-2014, International Energy Agency statistics).

Existing assumptions about the viability of hydropower plants will need to be updated to take account of hydrological change resulting from climate change.

The objective of balancing the future role of hydropower in the region's energy choices – building up a low-carbon generation capacity and using indigenous resources which can reduce external energy dependency – with the need to develop hydropower in a much more sustainable fashion than in the past constitutes the essence of the study '*A Regional Strategy for Sustainable Hydropower in the Western Balkans*'.

Suggested in March 2016, at a meeting of WB6 Energy and Transport Ministers, and included in the Declaration of the 2016 Western Balkans Summit in Paris, the initiative originated from a request from several regional actors for a more integrated approach to hydropower development in the Western Balkans.

After an initial scoping phase, the study was officially launched in Belgrade, on 27 September, with WB6 representatives.

The development of the study offered the opportunity to collect and analyse a significant volume of information on hydropower, in particular on integrated water management, environmental and climate aspects, trans-boundary considerations, the role that hydropower can contribute to satisfying the region's energy demand, grid connection issues, as well as institutional and regulatory questions.

To address all of these aspects of hydropower, two technical workshops were organised in the region to present and discuss the first findings of the study with all stakeholders (beneficiary countries, international financial institutions, civil society organisations, regional organisations, Member States, European Commission), in Podgorica, on 30-31 March 2017, and in Tirana, on 11-12 May.

The main points that the European Commission retains from the discussions that took place on these two events are the following.

- Hydropower development should be only one element of a broader strategy to achieve the countries legally-binding renewable energy targets. Other sources of renewable energy (wind, photovoltaic, biomass) offer a great potential for development as they represent at the moment only 3% of all installed power generation capacities in WB6 ⁽²⁾.
- Rehabilitating existing hydropower infrastructure is the first, immediate priority for investments, to preserve those megawatts that hydropower already contributes to the region's energy mix, and, to a limited extent, to upgrade the existing capacity.
- Only a few of the hundreds of projects planned will materialise, not only due to the necessity to preserve the environment, but also due to the difficulty for greenfield projects to reach financial viability in the current market. In addition, many of these projects are foreseen on the same river basins and projects already developed will affect the viability of planned plant upstream and downstream. In this context, it is essential to identify a limited number of strategic projects, the technical, economic and environmental feasibility of which will then be further explored on a regional basis. This is all the more important since most of the best sites for hydropower plants have already been occupied.
- The unique nature and biodiversity of the region, and the services they provide to its inhabitants, oblige any hydropower development to take place in compliance with the highest standards of ecological preservation. In this perspective, it is crucial to upgrade

⁽²⁾ International Energy Agency statistics.

historical standards (which date from a time when technical considerations were prioritised over environmental considerations), to present international standards.

In this context, the EU Water Framework Directive, the EU nature legislation (Birds and Habitats Directives) and the EU Environmental Impact Assessment and Strategic Environmental Assessment Directives shall remain the reference, independently of where the countries of the Western Balkans are in their transposition status. The Water Framework Directive, in particular, provides an exhaustive framework for integrated water management on river basin-scale, covering all waters (surface waters and groundwater), quantitative and qualitative status, and including all dimensions (special habitats, drinking water, bathing water, etc.) and uses.

Beyond EU legislation, additional guidance has been developed, for example by the International Commission for the Protection of the Danube River or the European Bank for Reconstruction and Development. The European Commission is also in the process of drafting such guidelines in the context of the nature and water legislation. Using these guidelines may prove instrumental for the successful development of sustainable hydropower.

- Impacts on the environment must be assessed and mitigation measures proposed, when developing new infrastructures but also when rehabilitating existing plant: corrective measures are pertinent even for plants built decades ago. As part of the *acquis communautaire* extended to the six countries of the Western Balkans under the Energy Community Treaty, complying with the EU's Strategic Environmental Impact Assessment and Environmental and Social Impact Assessment Directives is a legal obligation for the Western Balkans countries.

The above Environmental and Social Impact Assessments ⁽³⁾ shall imperatively meet certain requirements, amongst which:

- impacts shall be assessed not only at the scale of the project but also at the scale of the river, in order to include potential consequences upstream and downstream;
- assessments shall cover all pertinent aspects (continuity, ecologically acceptable flow, sediments, fish preservation, habitats, etc.);
- trans-boundary impacts on neighbouring countries, both upstream and downstream shall be considered;
- assessments must be subject to proper public consultation;
- projects located in protected or vulnerable areas shall be assessed with a higher scrutiny.

Accurately assessing environmental impacts and defining careful mitigation measures should be considered as an investment in the project, not a cost, while improper assessment can result in delays, project suspension, or possibly cancellation.

- A trans-boundary approach to hydropower is essential in a region where most, if not all, river basins are shared, confirming the need to plan at river basin level, and not only considering national territories. In this context, regional cooperation, and potential disputes, shall be guided by the reference international principles.
- Hydropower development needs to be accompanied by the development of transmission and distribution networks and, ultimately, with the development of the regional electricity market in order to ensure that project developers have a wider market for their production. The transmission network is largely ready and attention should mostly focus on the distribution network, in particular on reducing technical losses.

⁽³⁾ Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment (EIA Directive).

- The Western Balkans countries progressed in developing the legal and regulatory frameworks in which hydropower plants are built and operated, with the active support of the Energy Community. There is nevertheless significant room for improvement regarding information and transparency as well as coordination between institutions.
- Hydropower development provokes conflicting positions and interests. Sustainable development obliges project developers to weigh these interests and will only be achieved by finding the balance between promoting a potentially sustainable source of energy with the need to preserve sensitive natural ecosystems. The Regional Strategy for Sustainable Hydropower in the Western Balkans aims at offering a first step in this ambitious process.

Some points raised during the workshops, and not directly addressed by the study, require further considerations and discussions.

- Appreciating the cumulative effect of existing infrastructures and prospective projects is essential for further hydropower development planning. It however requires the collection of a significant amount of information, to complete missing or refresh old data. The systematic development of river basin management plans would not only allow complying with the requirements of the EU Water Framework Directive but also collecting this essential data.
- The sustainable dimension of hydropower development should be formally integrated in the national plans and strategies for hydropower. The latter should be developed, or updated, on the basis of the river basin management plans and systematically accompanied by Strategic Environmental Assessments, from the earliest stages.
- The 50 largest hydro power plants in the region represent approximately 95% of the installed hydropower capacity, while the other 200 small hydro power plants generate the remaining 5%. This raises the question of the role of small hydro power plants, their contribution to the global energy production balanced with their multiple impacts on the environment.
- Some areas are of particular high value, and vulnerability, in terms of nature and biodiversity, and not all impacts of hydropower development can be mitigated in such areas. This opens the question whether to designate exclusion zones for hydropower development and the extension of the Natura 2000 network in the Western Balkans region.

Following the technical workshops organised in Podgorica and Tirana, and considering the ambitious timeline of the study, the European Commission has decided that the study will be finalised in the autumn 2017, after collecting further comments on the draft reports and continuing discussions with all partners.

In parallel, the European Commission agreed with the view widely expressed during the workshops that the study needs more time in order to draw up a list of potential greenfield projects. Discussions with all partners will continue in the perspective to establish a widely-accepted approach to greenfield hydropower development.

A WB6 Meeting of Energy and Environment Ministers will be organised before the end of the year to endorse the results of the study.