

Renewable energy status and developments in the Western Balkans Six

Earlier studies have shown that the CESEC region has a vast potential for renewable energy while currently only a small share of that potential has been deployed. But available data and statistics are often incomplete or inconsistent, making it difficult to evaluate in detail the region's future transformation pathways. The European Commission (DG NEAR) has, therefore, financed a project under the Infrastructure Project Facility programme, to collect relevant data as required to undertake an in-depth analysis of a techno-economic options analysis in the Western Balkans Six partners.

This paper presents first observations derived from the interim results of this study.

Key insights

The Western Balkans constitute one quarter of total energy consumption in the Energy Community. Final energy consumption may grow by about 25% over the period up to 2030. The region has a significant transformation potential towards a low carbon energy system.

1. **The current share of renewable energy of gross final energy consumption in the Western Balkans Six is 28%.¹** The renewable energy mix almost exclusively consists of biomass and hydropower. Besides further increased use of biomass, significant growth is also expected in wind and solar power. Until 2030, the highest growth is expected to be in Serbia and Bosnia and Herzegovina, although the highest relative growth can be expected in Kosovo and Bosnia and Herzegovina.
2. **There is a limited variance in the fundamental costs of renewable power generation across the Western Balkans Six.** However, significant variations in resource availability exist within each country, and cost of capital is strongly influenced by differences in renewable energy support schemes and the overall political and economic situation in each country.
3. **An increased uptake of renewable energies is aggravated by regulated electricity prices for final consumers, which are substantially lower than current costs of electricity generation.** This aspect plays a strong role for both conventional generation and renewable energies.
4. **Integration of renewable energies into the grid in the region will benefit from stronger interconnectivity.** Recent and ongoing investments into national transmission networks and interconnectors will facilitate this development. Despite significant hydropower capacity in Albania and Bosnia and Herzegovina, integration may be limited by the continued use of old thermal plants with low efficiency and limited flexibility.
5. **Energy poverty and the widespread use of inefficient individual biomass installations for residential heating represents key barriers for increasing the efficiency of biomass usage in the heating sector.** Throughout the region, more than 50% of current biomass use takes places in the building sector, often using traditional stoves. The transition to district heating plants or efficient biomass boilers in the buildings sector could lead to major savings, but still hampered by energy poverty and a limited availability of district heating in most countries.
6. **The renewable energy share in the transport sector in the Western Balkans Six is still rather small at present.** With mobility expected to grow by 30%, biofuels and electrification

¹ Latest available Eurostat data for 2015.

options provide a cost-effective option to expand renewable energy use to more than 10% of total energy consumption in the transport sector by 2030.