



Sustainable renewables incentives How are the Western Balkans doing?

In the decade leading up to 2020, the Western Balkans' energy transition got off to a poor start, with governments limiting wind and solar investments and instead incentivising a small hydropower boom – which has damaged pristine rivers and streams across the region. For several years the countries have planned changes to their renewables support schemes in order to reduce costs and diversify their renewable energy generation. In this annual update briefing,¹ we look at how they are doing.

The need for a change of direction

In 2012, the Energy Community countries, including the Western Balkans, adopted renewable energy targets for 2020 and started to develop National Renewable Energy Action Plans and implement incentive schemes based on feed-in tariffs. Their plans for reaching the targets relied heavily on hydropower and biomass – the best-known forms of renewable energy in these countries, but also the ones with the most serious environmental impacts. Hydropower dominated incentives schemes, while solar and wind were included only to a tokenistic extent, regarded with suspicion by governments in the region as too expensive, too unpredictable, and reliant on foreign technology.

In September 2019, Bankwatch published *Who Pays, Who Profits?*,² a report which revealed the extent of the imbalance of the countries' support schemes and the impact this had on raising the share of renewables in electricity generation. Between 2009 and the end of 2018, at least 380 small hydropower plants (below 10 megawatts (MW)) were built in the Western Balkans, bringing the total number of such installations to at least 488. In 2018, these small hydropower plants received around 70 per cent of renewables incentives, but generated only 3.6 per cent of overall electricity.

Feed-in tariffs have been widely used across Europe to stimulate the growth of renewable energy, as they guarantee the purchase of electricity from a certain number of electricity producers at a fixed price, set high enough to offer an investment incentive. But instead of using them to attract investments in new technologies and bring down their costs, Western Balkan governments stuck to what they knew and what well-connected construction companies knew how to build – hydropower. Some wind power, and in Serbia biogas, was supported, but solar power hardly at all.

By the end of 2020, no fewer than 598 hydropower plants of less than 10 MW (15 MW in Albania) were online compared to 108 in 2009 – in other words, 490 new plants had been built. Of these plants, 532 were part of incentives schemes. This includes some older ones which had been rehabilitated, which is why the figure is larger than the number of plants built.

This imbalance between the support provided for hydropower and other renewable resources was reflected in the countries' results for 2020. From the Western Balkans, only Albania and Montenegro met their 2020 renewables targets. For Albania, this was the result of a massive drop in consumption during the COVID-19

¹ The 2022 edition can be found at: CEE Bankwatch Network, <u>Cutting hydropower subsidies – how are the Western Balkans doing?</u>, *CEE Bankwatch Network*, 15 February 2022.

² CEE Bankwatch Network, <u>Who Pays, Who Profits?</u>, CEE Bankwatch Network, September 2019.



pandemic.³ Montenegro over-reached its target already in 2014 and in fact saw a drop between then and 2019 due to a decrease in the use of biomass for heating. However, its achievement of its target happened mainly due to the revision of biomass data, rather than significant investments.⁴



Figure 1: Energy Community 2020 results on renewable energy targets. Source: Energy Community Secretariat⁵

Feed-in tariffs must be phased out for all but the smallest plants

Under the Energy Community Treaty, the Western Balkan countries have to apply EU State aid rules. In 2015 the Treaty Secretariat issued policy guidelines⁶ underlining the need to apply the European Commission's 2014 to 2020 energy and environment criteria (EEAG),⁷ which would include stopping new feed-in tariffs for all but the smallest plants – below 500 kilowatts (kW) for hydropower – and introducing a system of auctions and premiums.

Since then, the European Commission has issued new criteria – the Guidelines on State aid for climate, environmental protection and energy (CEEAG)⁸ – applicable from January 2022. These new rules contain similar provisions but lower the threshold for feed-in tariffs to 400 kW until 2026 and then reduce them

³ Energy Community Secretariat, <u>Annual Implementation Report 2022</u>, *Energy Community*, November 2022.

⁴ Energy Community Secretariat, <u>Annual Implementation Report 2021</u>, *Energy Community*, November 2021.

⁵ Energy Community Secretariat, <u>Energy Community meets 2020 headline target for energy efficiency</u>, makes progress on renewables, *Energy Community*, 16 February 2022.

⁶ Energy Community Secretariat, <u>Policy Guidelines on the Applicability of the Guidelines on State Aid for Environmental Protection and Energy 2014-</u> 2020, PG 04/2015, Energy Community, 24 November 2015.

⁷ European Commission, <u>Guidelines on State aid for environmental protection and energy 2014-2020</u>, *EUR-Lex*, 28 June 2014.

⁸ European Commission, <u>Communication from the Commission – Guidelines on State aid for climate, environmental protection and energy 2022,</u> <u>C/2022/481</u>, Official Journal C 80, 18 February 2022, 1–89.



further to 250 kW. In February 2022, the Energy Community Secretariat announced that it would assess any new State aid in the energy sector according to the CEEAG criteria.⁹

According to this newer model, renewable electricity is sold on the market and producers who win in auctions are able to receive a premium in case the market price is lower than the price they had pledged in the auction. This system is meant to continue to support renewables development while limiting the cost to consumers. In some cases, when market prices go higher than the price they pledged in the auction, producers also need to pay money back to the governments.

According to the European Commission guidelines, countries are free to choose what type of renewables they most need to support, as long as they don't unfairly discriminate between technologies. However, we believe there is a strong case for concentrating incentives on solar and wind in the region in order to even out the imbalance created by previous schemes that excessively supported small hydropower. Given the widespread damage that hydropower has caused,¹⁰ the fact that it is a mature technology whose costs are not falling, and the fact that generation levels are fluctuating wildly due to climate change,¹¹ governments should stop incentivising it.

Energy crisis slows down incentive system reforms

Most of the countries' incentive schemes were geared up to meeting the 2020 renewables targets, so the end of 2020 was a key moment to change their schemes in line with EU rules, reduce costs for consumers and redirect support towards more sustainable energy sources. All of the countries made some moves in this direction, but not all of them have been completed yet (see country profiles below).

The quadruple energy crisis which has hit the Western Balkans in the last two years has once again underlined the importance of moving more quickly with a sustainable energy transition, but also disrupted progress in updating support schemes.

Since autumn 2021, several Western Balkan countries – mainly Kosovo, North Macedonia, Serbia and hydropower-dependent Albania – have suffered from electricity crises due to technical and coal supply problems at coal power plants, very poor hydrological conditions for hydropower, and extremely high electricity import prices due to the ongoing gas crisis across Europe. To make things worse, in 2022 prices of wood biomass – widely used for home heating – also massively increased, leading some countries to declare export bans.¹²

The very low share of solar and wind in the countries' energy mix during this period has left them highly exposed and underlined the need for a more balanced energy supply.

Instead of speeding up the energy transition, in many cases the crisis slowed it down, as governments and utilities scrambled to ensure secure day-to-day supply and spent vast amounts of money to prop up the

⁹ Energy Community Secretariat, <u>Applicability of European Commission's Guidelines on State Aid for Climate, Environmental Protection and Energy</u> <u>2022</u>, *Energy Community*, 11 February 2022.

¹⁰ See for example CEE Bankwatch Network, <u>Public Money vs. Pristine Rivers</u>, *CEE Bankwatch Network*, October 2021.

¹¹ CEE Bankwatch Network, <u>Why hydropower in southeast Europe is a risky investment</u>, *CEE Bankwatch Network*, July 2022.

¹² CEE Bankwatch Network, <u>The Western Balkan Power Sector – between crisis and transition</u>, December 2022.



existing system.¹³ For example, by the end of 2022, the North Macedonian government had spent EUR 369 million on crisis-related energy subsidies, mostly for fossil fuels – an amount equal to almost 10 per cent of the country's annual budget for the same year.¹⁴

Mixed progress on moving to auctions and premiums

Albania

Albania is the only country in the Western Balkans which has built new greenfield large hydropower (above 10 MW) in the last decade, adding over 600 MW since 2012.¹⁵ However, its electricity generation is very erratic. In 2020, for example, Albania still had to import around 30 per cent of electricity.¹⁶



Figure 2: Electricity generation in Albania, 2010-2022. Source: IEA statistics and Energy Regulatory Office annual reports.

Albania was, by regional standards, an early mover in changing towards an auctions and premiums system. Its previous renewables incentives system did not support anything other than hydropower, but its 2017 law on renewable energy sources introduced auctions and premiums and allowed smaller producers to receive feed-in tariffs for new plants: up to 2 MW for solar and hydropower, and up to 3 MW for wind. These solar and hydropower thresholds were higher than those in EEAG and CEEAG State aid guidelines and were thus non-compliant.

¹³ Ibid.

¹⁴ Davor Pehchevski, '<u>369 million euros of North Macedonia's public money going up in smoke</u>', *CEE Bankwatch Network*, 30 January 2023.

¹⁵ CEE Bankwatch Network, <u>Why hydropower in southeast Europe is a risky investment</u>.

¹⁶ International Energy Agency statistics: <u>Electricity</u>, Albania, 2020.

In August 2019, Prime Minister Edi Rama pledged¹⁷ that no more plants under 2 MW would be built in Albania, describing them as 'useless and harmful'. However, we are not aware of any changes in the legislation that might have implemented this promise.

For larger plants, there was a phase-in period for auctions until the end of 2020. Producers with solar and wind plants above the feed-in tariff thresholds, and hydropower plants between 2 and 15 MW were able to obtain contracts for difference for premiums without an auction. Any plants which did not do so now have to participate in auctions.

By the end of 2022, Albanian's incentives scheme was still dominated by hydropower. According to our calculations based on the energy regulator's annual report, ¹⁸ at the end of 2022, Albania had 215 hydropower plants below 15 MW (the capacity limit for the previous feed-in tariff scheme),¹⁹ compared to 32 existing small hydropower plants before 2009.²⁰

Table 1: Albania: Installed capacity of hydropower, wind and solar, end 2022.

Hydropower above 15 MW	1,906 MW (2,074 over 10 MW)
Hydropower below 15 MW	587 MW (419 over 10 MW)
Wind	0 MW
Solar photovoltaics	23 MW

Source: Calculations based on Energy Regulatory Authority Annual Report 2022.

The country's previous incentives scheme continues to exert a heavy burden. Not counting the larger Ashta plant which also has a power purchase agreement, payments to renewables operators cost more than EUR 136 million in 2022 (ALL 14.5 billion).²¹ This includes solar, not only hydropower – but with only 23 MW of solar, in reality almost all support went to hydropower.

In early 2023, Albania changed its renewables law. On 23 March, the Parliament adopted Law no. 24/2023 on Promotion of the use of energy from renewable sources, which entered force on 29 April.²² Since Albania

¹⁷ WWF Adria, <u>Neither green, nor clean – Albanian prime-minister admits that small hydropower plants are "useless and harmful"</u>, *WWF*, 2 August 2019.

¹⁸ Energy Regulatory Authority, <u>The Situation of the Power Sector and ERE Activity during 2020</u>, *Energy Regulatory Authority*, 2021, 44.

¹⁹ Energy Regulatory Authority, <u>Raport Vjetor, Gjendja e Sektorit të Energjisë dhe Veprimtaria e ERE-s gjatë Vitit 2022</u>, *Energy Regulatory Authority*, 2023, 38-41. Of these, 204 were below 10 MW.

²⁰ CEE Bankwatch Network, <u>Who Pays, Who Profits</u>. This figure was deduced by examining Energy Regulatory Authority reports from 2009 and the previous years.

²¹ Energy Regulatory Authority, <u>Raport Vjetor, Gjendja e Sektorit të Energjisë dhe Veprimtaria e ERE-s gjatë Vitit 2022</u>, *Energy Regulatory Authority*, 2023, 146.

²² Centre for Official Publications, <u>Për nxitjen e përdorimit të energjisë nga burimet e rinovueshme, Ligj nr. 24/2023, datë 23.3.2023</u>, *Official Gazette no. 64*, 14 April 2023.



still does not have a functional day-ahead market, it allows producers to compete in auctions to define a price for power purchase agreements (i.e. feed-in tariffs) until the day-ahead market is operating, at which point the contracts will be converted to contracts for premiums.

The law does not distinguish between small or large projects, except for projects for self-consumption under 500 kW, and it leaves decisions about which technologies to support up to the implementing authority.

Albania has been active in diversification of its renewable energy sources in recent years, having completed three solar auctions, in 2018,²³ 2020²⁴ and 2021.²⁵ It is also carrying out a wind auction,²⁶ and has announced it will carry out a new solar auction soon.²⁷ By far the largest plant under construction is Voltalia's massive 140-MW solar farm at Karavasta, which reportedly started construction in July 2022. Also being built in Albania is the 40-MW first phase of the Erseka solar power plant near Korça, later planned to be followed by another 40 MW.²⁸

But the fact that the new law leaves space for incentivising hydropower and forest biomass is a matter of concern, given the dominance of these sources in Albania's renewable energy use and their heavy environmental impacts. It is also not clear how the public will be able to influence such decisions, as it is unclear whether there will be public consultations.

Bosnia and Herzegovina

Bosnia and Herzegovina's incentives systems, like others in the region, have mostly supported small hydropower. So far, non-governmental organisation Ekoakcija has identified 121 small hydropower plants in operation,²⁹ compared to 32 pre-existing before 2009, but updated official figures are not yet available for 2022.

Both entities, but particularly Republika Srpska, have ambitious plans to build large hydropower plants, but have not managed to complete any greenfield plants in the last decade. A 35-MW plant, Ulog, is currently under construction on the upper Neretva,³⁰ and derivation tunnels for the 160-MW Dabar plant on the *Nevesinjske polje* karst field are also under construction.³¹

As the trend line on the graph below shows, the addition of these small hydropower plants has not been effective in arresting a trend of declining hydropower generation in recent years. Solar and wind still barely

²⁷ Ibid.

²³ Energy Community Secretariat, <u>Albania becomes first Energy Community Contracting Party to hold renewable energy support auction</u>, *Energy Community*, 14 November 2018.

²⁴ Igor Todorović, '<u>Albania secures lowest solar power price in Balkans in Karavasta auction</u>', Balkan Green Energy News, 28 May 2020.

²⁵ Igor Todorović, '<u>Voltalia wins auction in Albania for Spitalle solar power plant of 100 MW</u>', Balkan Green Energy News, 26 March 2021.

²⁶ Igor Todorović, '<u>Albania to issue call for 300 MW solar power auction by June</u>', Balkan Green Energy News, 19 April 2023.

²⁸ CEE Bankwatch Network, <u>The Western Balkan Power Sector – between crisis and transition</u>.

²⁹ Ekoakcija, <u>Ukupan broj MHE u BiH (u pogonu)</u>, *Ekoakcija*, accessed 15 June 2023.

³⁰ For more information, see <u>Bankwatch's project profile</u>.

³¹ For more information, see <u>Bankwatch's project profile</u>.



show up on the scale, despite Bosnia and Herzegovina having the second most solar capacity in the Western Balkans at the end of 2022.



Figure 3: Electricity generation in Bosnia and Herzegovina, 2010-2022. Source: <u>IEA statistics</u> and <u>State Energy Regulatory</u> <u>Commission (DERK) annual reports</u>.

Bosnia and Herzegovina has three operating wind farms, all in the Federation of Bosnia and Herzegovina. The 84-MW Ivovik plant, also in the Federation, is currently under construction.³² A construction permit has also been issued for the 66-MW Grebak plant in Republika Srpska,³³ but it is not clear whether active construction has started.

Table 2: Bosnia and Herzegovina: Installed capacity of hydropower, wind and solar, end 2022.

Hydropower above 10 MW	1,656 MW
Pumped storage	420 MW
Hydropower below 10 MW	182 MW
Wind	135 MW

³² Tomislav City, '<u>Izgradnja vjetroelektrane Ivovik na pola puta</u>', *Tomislav City*, 27 May 2023.

³³ Ekapija, '<u>RS dala građevinsku dozvolu za VE Grebak, započeta procedura za gradnju solarnog parka Plana</u>', *Ekapija*, 28 March 2023.



Solar photovoltaics	102 MW

Source: Calculations based on <u>State Energy Regulatory Commission (DERK)</u> 2022 annual report.

Republika Srpska extended its feed-in tariff scheme until the end of 2021,³⁴ and in February 2022 its parliamentary assembly adopted a new Renewable Energy Law which brings its incentives scheme into line with EU State aid rules. It limits incentives for hydropower to plants below 150 kW, and is in this respect so far the most progressive law in the region.

Nevertheless, caution is still required for larger plants, which may be subject to investment aid outside of the incentives scheme. For example, the Dabar hydropower plant received a guarantee from Republika Srpska, but this was only notified to the State aid authority after it had been approved.³⁵

In the Federation of Bosnia and Herzegovina, as described in last year's briefing on this topic,³⁶ the previous incentives scheme expired at the end of 2020, in line with the 2020 targets. Confusingly, however, two decisions were taken in February³⁷ and May 2021³⁸ which attempted to extend the scheme, without changing the law. It is unclear whether these decisions were legal. This led to a period of confusion where the Operator for Renewable Energy Resources and Efficient Cogeneration was initially still approving new feed-in tariffs, but then stopped in March 2022 when a new director took over.³⁹

A new draft law on renewable energy has existed at least since 2019, and a public consultation was held in summer 2022, followed by a long pause. Only after a new Federation government was finally formed in April 2023 did it approve the law in May, and as of late June the parliament is due to debate the law any time now.

The draft law that was subject to public consultation contains some positive aspects, such as not incentivising small hydropower.⁴⁰ However, it allows incentivisation of forest biomass combustion without any capacity limit – a very dangerous development for the country's poorly governed forests. It also contains a massive loophole in the shape of 'location-specific auctions' for which no details are given at all. This could open the way for various forms of individual State aid for unsustainable renewables such as

³⁴ Government of Republika Srpska, <u>Odluka o usvajanju izmjena Akcionog Plana Republike Srpske za korišćenje obnovljivih izvora energije</u>, *Regulatory Commission for Energy of Republika Srpska*, 3 December 2020.

³⁵ State Aid Council of Bosnia and Herzegovina, <u>Ministarstvo energetike i rudarstva Republike Srpske za odobrenje državne pomoći u obliku</u> garancije korisniku Hidroelektrana "Dabar" d.o.o. Trebinje, State Aid Council of Bosnia and Herzegovina, 28 April 2022.

³⁶ CEE Bankwatch Network, <u>Cutting hydropower subsidies – how are the Western Balkans doing?</u>.

³⁷ Government of the Federation of Bosnia and Herzegovina, <u>Odluka o utvrđivanju obavezujućih ciljeva za korištenje obnovljivih izvora energije u</u> <u>Federaciji Bosne i Hercegovine</u>, Operator for Renewable Energy Sources and Efficient Cogeneration, 25 February 2021.

³⁸ Government of the Federation of Bosnia and Herzegovina, <u>Odluka o izmjeni odluku o utvrđivanju obavezujućih ciljeva za korištenje obnovljivih</u> <u>izvora energije u Federaciji Bosne i Hercegovine</u>, Operator for Renewable Energy Sources and Efficient Cogeneration, 6 May 2021.

³⁹ Operator for Renewable Energy Sources and Efficient Cogeneration, <u>Obavještenje za javnost</u>, Operator for Renewable Energy Sources and Efficient Cogeneration, 17 March 2022.

⁴⁰ Small hydropower plants can in any case no longer receive energy permits in the Federation unless they already had concession agreements before new legal requirements entered into force. In that case they have three years as a transition phase to obtain such permits. Azem Kurti, '<u>Bosnia</u> <u>Greens Celebrate as Federation Bans Small Hydropower Plants</u>', *Balkan Insight*, 7 July 2022.



hydropower or forest biomass, without transparent rules in place to make sure that other operators would be able to benefit from similar conditions.

Kosovo

Kosovo is one of the countries that has suffered most from the energy crisis, with several outages of its antiquated coal power plants, and few options except to cut energy use or import electricity at exorbitant prices. Despite some progress with installing wind power plants in recent years, its electricity sector is still overwhelmingly dominated by coal.



Figure 4: Electricity generation in Kosovo, 2010-2022. Source: <u>IEA statistics</u> and <u>Energy Regulatory Commission annual</u> <u>reports</u>.

Despite its relatively limited water resources, like its neighbours, Kosovo's pre-2020 feed-in tariff scheme mostly concentrated on promoting hydropower. This resulted in 23 installed plants under 10 MW by the end of 2022, compared to four in 2009.⁴¹ It had two major wind farms and six solar farms with a total of 10 MW installed capacity.⁴²

⁴¹ Kosovo Energy Regulatory Office, <u>Raporti Vjetor 2022</u>, *Kosovo Energy Regulatory Office*, March 2023.

⁴² Ibid.



Hydropower above 10 MW	35 MW
Hydropower below 10 MW	97.43 MW
Wind	137.16 MW
Solar photovoltaics	10 MW

Table 3: Kosovo: Installed capacity of hydropower, wind and solar, end 2022.

Source: Calculations based on Kosovo Regulatory Office Annual Report for 2022.

At the end of 2020, Kosovo's Regulatory Office terminated the support scheme for new plants based on feedin tariffs.⁴³ A new law on renewable energy is under preparation and was subject to public consultation in December 2022.⁴⁴ The draft did not foresee support for hydropower plants, but did allow support for forest biomass plants. In May 2023, Kosovo also launched its first solar auction,⁴⁵ and is pioneering the use of solar thermal energy in district heating in Prishtina.

After evidence on the legal breaches and damage caused by small hydropower was published in 2021 by the Ministry for the Environment, Spatial Planning and Infrastructure⁴⁶ and the Kosovo Ombudsperson,⁴⁷ in March 2023, Kosovo formalised its concerns towards new greenfield hydropower. It became the first Western Balkan country to adopt an energy strategy stating that it would not promote hydropower any longer.⁴⁸

Montenegro

Montenegro is heavily reliant on hydropower plants, which depending on the year produce between 40 and 60 per cent of its electricity. Most of the remainder of its electricity is currently generated by the Pljevlja coal power plant, which is operating illegally.⁴⁹

Its feed-in tariff scheme mostly supported hydropower, and by the end of 2022 the country had 37 installed plants under 10 MW, compared to seven in 2009.⁵⁰ However, this did not have any impact on the country's gradually declining hydropower generation, shown by the trend line in the graph below.

⁴³ Kosovo Energy Regulatory Office, <u>Decision ERO Code: V 1321 2020</u>, Kosovo Energy Regulatory Office, 10 December 2020.

⁴⁴ Republic of Kosovo Office of the Prime Minister, <u>public consultation portal</u>.

⁴⁵ Energy Community Secretariat, <u>The Secretariat welcomes Kosovo's first solar auction</u>, *Energy Community*, 25 May 2023.

⁴⁶ Ministry for Environment, Spatial Planning and Infrastructure, <u>Raport i grupit punues për shqyrtimin e procedurave administrative të zbatuara</u> <u>për hidrocentrale dhe ndikimin e tyre në ujëra dhe mjedis</u>, *Ministry for Environment*, Spatial Planning and Infrastructure, 30 June 2021.

⁴⁷ Ombudsperson, <u>Raport Me Rekomandime 365/2018</u>, *Ombudsperson*, February 2021.

⁴⁸ Pippa Gallop, 'Kosovo becomes the first Western Balkan country to stop promoting new hydropower', CEE Bankwatch Network, 28 March 2023.

⁴⁹ CEE Bankwatch Network, <u>Comply or Close</u>, *CEE Bankwatch Network*, June 2022.

⁵⁰ Government of Montenegro, Energy Balance of Montenegro 2023, Government of Montenegro, December 2022.





Figure 5: Electricity generation in Montenegro, 2010-2022. Source: IEA statistics and Energy Balance 2023.

By 2020, Montenegro had two wind farms online, which for a small country was sufficient to make a visible contribution to its electricity generation. However, its lack of solar development is noticeable, despite its obvious potential.

Table 4: Montenegro: Installed capacity of hydropower, wind and solar, end 2022.

Hydropower above 10 MW	649 MW
Hydropower below 10 MW	55 MW
Wind	118 MW
Solar photovoltaics	3 MW ⁵¹

Source: Calculations based on Montenegro Energy Balance for 2023.

After widespread public outcry about the damage caused by small hydropower plants and the fact that many of those benefiting were known to be close to the regime, Montenegro was the first country in the region to include a legal provision that it would stop awarding feed-in tariffs after meeting its 2020 renewable energy target.

⁵¹ It appears that this figure might not include households and businesses with solar for self-consumption – see the paragraph on the Solari programme, which states that 17 MW had been installed by April 2023.



In fact, mainly due to the revision of biomass data, Montenegro had already met its target several years before 2020, but feed-in tariffs continued to be awarded right up until 2020 and 2021.⁵² It seems unlikely that all of the producers had already submitted their applications before the law changed. It was only after the change of government in late 2020 that reports were finally adopted on the targets having been met, and the Decree which enabled feed-in tariffs to be approved was annulled on 26 July 2021.⁵³

The Law on Energy was amended in 2020 to allow support for renewables via auctions and premiums, but details of how auctions that are not location-specific will work in practice still need to be worked out.

Several large solar and wind projects such as the Briska Gora solar plant are in the pipeline, but most are not proceeding and it is not always clear why. Still, in June 2023 the EBRD announced the financing of the Gvozd wind farm, so this may change.⁵⁴

On a more positive note, in 2021, Montenegrin utility Elektroprivreda Crne Gore (EPCG) launched the Solari 3000+ and Solari 500+ programmes, in which EPCG provides solar photovoltaic panels, financing and installation. Households and businesses can pay off the equipment in the form of a loan over five to seven years. By April 2023, 17 megawatts of photovoltaics had been installed on more than 1,500 roofs of households and businesses.⁵⁵ This sounds small, but is much more than Montenegro's total installed capacity by the end of 2022 (see above).

Montenegro is currently in the process of changing its legal framework for renewable energy, and is drafting a new law with support from the EBRD.⁵⁶ To the best of our knowledge, as of late June 2023, no draft is available to the public.

North Macedonia

North Macedonia's electricity consumption has been decreasing for more than a decade, but this has not helped it to avoid serious problems during the recent energy crisis. Its Bitola 3 coal plant was offline for the entire year in 2022 and its antiquated Oslomej coal plant and Negotino heavy oil plant were reactivated to help make up for the shortfall.

Although North Macedonia was initially a regional frontrunner in the energy transition, being the first country to start operating a utility-scale wind farm, its wind and solar development stalled between 2015 and 2020. Its second wind farm, the 36-MW Bogoslovec, is only just starting to operate as of June 2023.⁵⁷

⁵² See the register of privileged producers <u>here</u>.

⁵³ Government of Montenegro, <u>Uredba o prestanku važenja Uredbe o načinu ostvarivanja i visini podsticajnih cijena za električnu energiju</u> proizvedenu iz obnovljivih izvora i visokoefikasne kogeneracije, Government of Montenegro, 26 July 2021.

⁵⁴ European Bank for Reconstruction and Development, '<u>EBRD finances 55 MW wind farm in Montenegro with €82 million loan</u>', European Bank for Reconstruction and Development, 19 June 2023.

⁵⁵ EPCG Solar Gradnja, <u>Od projekta 3000+ i 500+ prihodovaće se šest miliona evra, po osnovu oslobođene energije</u>, *EPCG Solar Gradnja*, 17 April 2023.

⁵⁶ European Bank for Reconstruction and Development, <u>Support for the Implementation of Renewable Energy</u>, *European Bank for Reconstruction and Development*, 15 March 2022.

⁵⁷ Wind Park Bogoslovec, <u>Construction Update #6, Wind Park Bogoslovec</u>, 5 June 2023.



Like its neighbours, North Macedonia put considerable faith into small hydropower to increase its renewable production, and by the end of 2022 had 123 plants under 10 MW, compared to 17 in 2009.⁵⁸ However, they have not been sufficient to halt declining overall production from hydropower since 2010, shown by the trendline on the graph below.



Figure 6: Electricity generation in North Macedonia, 2010-2022. Source: <u>IEA statistics</u> and <u>Energy Regulatory Commission</u> <u>annual report 2022</u>.

In recent years, North Macedonia has speeded up solar photovoltaic installation and by the end of 2022, it had 476 solar plants with a combined capacity of 144 MW. While most of these were rooftop plants, at least three of them were utility-scale plants of 10 MW (an old coal mine at Oslomej), 8 MW (Trkani) and 17 MW (built by Slovenia's GEN-I).⁵⁹

Table 5: North Macedonia: Installed capacity of hydropower, wind and solar, end 2022.

Hydropower above 10 MW	571 MW
Hydropower below 10 MW	148 MW
Wind	36.8 MW

⁵⁸ Energy and Water Services Regulatory Commission of the Republic of North Macedonia, <u>Annual Report 2022</u>, *Energy and Water Services Regulatory Commission of the Republic of North Macedonia*, 2023.

⁵⁹ CEE Bankwatch Network, <u>The Western Balkan Power Sector - between crisis and transition</u>.



Solar photovoltaics	144 MW
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Source: Energy Regulatory Commission annual report for 2022.

North Macedonia started to introduce auctions and premiums in 2018, when the government adopted a new Law on Energy, and has held some successful solar auctions.

But the subsequent implementing legislation left feed-in tariffs for small hydropower intact. The Decree on support measures⁶⁰ still allowed first-come, first-serve feed-in tariffs for hydropower, biogas and biomass, but only feed-in premiums for wind and solar. After unsuccessful attempts to resolve the issue at the national level, Bankwatch and its member group Eko-Svest filed a complaint to the Energy Community Secretariat on 1 July 2019. The case is still being processed.

The energy crisis in 2022 brought interesting new developments when 35 renewables producers submitted requests to exit the feed-in tariffs system so they could sell their electricity at higher prices on the open market.⁶¹ But with 172 producers still in the feed-in tariff at the end of the year, it is too early to proclaim its demise.

With public resistance increasing and solar and wind becoming cheaper alternatives in recent years, it is unclear why North Macedonia is clinging so stubbornly to its feed-in tariff scheme for small hydropower.



Brza Voda 2 in North Macedonia. Photo: Andrey Ralev

⁶⁰ Government of North Macedonia, <u>УРЕДБА ЗА МЕРКИТЕ ЗА ПОДДРШКА НА ПРОИЗВОДСТВОТО НА ЕЛЕКТРИЧНА ЕНЕРГИЈА ОД ОБНОВЛИВИ</u> <u>ИЗВОРИ НА ЕНЕРГИЈА</u>, *Republic of North Macedonia Ministry of Economy*, 5 February 2019.

⁶¹ Energy and Water Services Regulatory Commission of the Republic of North Macedonia, <u>Annual Report 2022</u>, *Energy and Water Services Regulatory Commission of the Republic of North Macedonia*, 2023.



Serbia

Around two-thirds of Serbia's energy is generated by coal and most of the remainder by hydropower plants. Serbia has suffered from the energy crisis due to coal supply failures and expensive electricity exports, and as the graph below shows, electricity generation significantly decreased in 2022, leading to a large increase in exports.



Figure 7: Electricity generation in Serbia, 2010-2022. Source: IEA statistics and Energy Agency Annual Report 2022.

Solar and wind have been slow to get off the ground, although wind capacity greatly increased in 2018 and 2019. By 2020 there was 398 MW of wind power installed in eight plants,⁶² but this figure remained the same at the end of 2022.⁶³ The largest wind farms so far are Kovačica with 104.5 MW and Košava with 69 MW. By the end of 2022, solar still languished at around 13 MW.⁶⁴

By the end of 2022, according to Energy Agency data, 156 small hydropower plants were online, of which 18 were older ones owned by Serbia's state-owned utility Elektroprivreda Srbije (EPS), and the remainder were newer ones owned by other producers.⁶⁵ However they made a negligible contribution to Serbia's overall electricity generation.⁶⁶

⁶² Energy Agency of the Republic of Serbia, <u>2020 Energy Agency Annual Report</u>, Energy Agency of the Republic of Serbia, May 2021, 14-15.

⁶³ Energy Agency of the Republic of Serbia, <u>ИЗВЕШТАЈ О РАДУ АГЕНЦИЈЕ ЗА ЕНЕРГЕТИКУ ЗА 2022. ГОДИНУ</u>, Energy Agency of the Republic of Serbia, May 2022.

⁶⁴ Energy Agency of the Republic of Serbia, <u>2020 Energy Agency Annual Report</u>.

⁶⁵ Energy Agency of the Republic of Serbia, <u>ИЗВЕШТАЈ О РАДУ АГЕНЦИЈЕ ЗА ЕНЕРГЕТИКУ ЗА 2022. ГОДИНУ</u>.

⁶⁶ Ibid.



Serbia stands out regionally for its 43 MW of biogas capacity – much more than any other country in the region. But again, this has not made a visible impact on electricity generation so far.⁶⁷

Hydropower above 10 MW	2,941 MW
Hydropower below 10 MW	128 MW
Wind	398 MW
Solar photovoltaics	13 MW
Biogas	43 MW

Table 6: Serbia: Installed capacity of hydropower, wind, solar and biogas, end 2022.

Source: Energy Agency Annual Report 2022.

In 2021, after years of inactivity in planning Serbia's post-2020 renewables development, a whirlwind of activity resulted in several new laws being adopted, including one on renewable energy.⁶⁸ The law brings Serbia's incentives system into line with the EU's 2014 to 2020 State aid guidelines, although it also contains some potentially problematic provisions on 'strategic projects' that appear designed to bypass normal public procurement procedures.

Despite this progress, 2022 was in many ways a lost year for Serbia's renewable energy development, as the energy crisis coincided with yet another election and subsequent government formation. Still, in 2023 there has been visible progress, with adjustments to the renewables legislation in April⁶⁹ and the launch of Serbia's first wind and solar auction in June.⁷⁰

What now for the Western Balkans' renewables incentives schemes?

As explained above, Western Balkan countries need to change their renewables incentives systems for several reasons:

- To move to a more cost-effective system that would allow integration of much greater volumes of sustainable forms of renewable energy;
- To provide more support to solar and wind than was previously the case;

⁶⁷ Ibid.

⁶⁸ Balkan Green Energy News, '<u>High interest in renewables in Serbia – new regulation in a nutshell</u>', Balkan Green Energy News, 30 June 2021.

⁶⁹ Igor Todorović, '<u>New renewables law in Serbia limits connection capacity to keep grid stable</u>', Balkan Green Energy News, 29 April 2023.

⁷⁰ Balkan Green Energy News, 'Serbia launches auctions for wind, solar', Balkan Green Energy News, 14 June 2023.



- To stop fuelling nature destruction by small hydropower plants (and forest biomass, although this has received fewer incentives so far);
- To provide more visible progress in a sustainable energy transition and decrease resistance from energy consumers who ultimately pay for the incentives.

With regard to the need to take the first step and stop biodiversity damage from small hydropower plants, some of the countries have undertaken intermediate action to halt new feed-in tariff contracts being signed, including Kosovo and the Federation of Bosnia and Herzegovina, while Serbia and Republika Srpska have introduced capacity thresholds that will limit feed-in tariffs to only the very smallest hydropower plants.

The results from these moves are still filtering through the system. Between 2020 and 2022, a noticeable increase in the number of small hydropower plants starting operations was still visible, except in Kosovo where there was no growth.



Figure 8 - Number of hydropower plants <10 MW per country (<15 MW in Albania) 2009, 2020 and 2022. Source: <u>Albania, Kosovo, North</u> <u>Macedonia</u> and <u>Serbia</u> energy regulator reports for 2022, Ekoakcija <u>BiH hydropower database</u>⁷¹ and <u>Montenegro Energy Balance for</u> <u>2023</u>.

So far there is no major visible difference between countries which have stopped awarding feed-in tariffs and those – Albania and North Macedonia – which have not, so it will be interesting to see if this changes in the next year. It could be argued that some producers were motivated by high electricity prices to continue investments even without feed-in tariffs in some countries, but if this was the case, they must have been

⁷¹ Official data for Bosnia and Herzegovina is not yet available for 2022.



investments that were already planned – planning and building a small hydropower plant from scratch cannot be done in a year or two.

Looking at moves to implement more efficient and environmentally acceptable renewable energy policies in the region, however, the progress has been even more mixed.

Albania has held several solar and wind auctions, but they need to start showing more on-the-ground results. The country must stop offering incentives for hydropower altogether.

In Bosnia and Herzegovina, Republika Srpska took a very positive step forward with its law on renewable energy. It now needs to ensure speedier implementation. It also needs to avoid hidden subsidies for hydropower via loan guarantees or capital increases for larger plants such as Buk Bijela and should review its loan guarantee for the Dabar plant.

The Federation's draft law on renewable energy needs to be strengthened to more clearly define the rules for location-specific auctions, limit them to sustainable forms of renewable energy, and limit support for biomass. Strengthened oversight of the Operator for Renewable Energy Sources and Efficient Cogeneration needs to be continued and previous irregularities further investigated. Disciplinary action needs to be taken against the previous directors.

Kosovo has moved forward by approving a new energy strategy, drafting a renewable energy law and launching its first solar auction. It is also making progress with regard to connecting prosumers.⁷² Adopting the new law to set a predictable incentives framework until 2030 as well as making sure that planned solar and wind projects move forward should be the priorities.



Alibunar wind farm in Serbia. Photo: Ванилица via Creative Commons

⁷² Energy Community Secretariat, <u>Transition Tracker, Third Edition</u>, *Energy Community*, June 2021.



Montenegro has taken decisive action to stop awarding feed-in tariffs, cancelled several small hydropower concessions, and started to encourage household solar, but urgently needs to progress with larger wind and solar projects which are sorely needed to replace the Pljevlja coal plant. It needs to avoid getting distracted by the Komarnica large hydropower plant and gas plants, which would cause a new fossil fuel lock-in.

North Macedonia made impressive progress with small-scale solar in 2022, but needs to speed up on largerscale projects such as the remaining ones on the former coal mines at Oslomej. It urgently needs to finally stop awarding new feed-in tariffs for small hydropower and must work on grid improvements to allow faster uptake of solar and wind.

Serbia has also taken important steps forward, but needs more institutional continuity in the Ministry for Mining and Energy and a clearer strategic vision for renewable energy. Its draft national energy and climate plan (NECP)⁷³ was published for consultations in June 2023 but fails to address a number of key questions about the country's energy plans. Making progress on encouraging prosumers and on bringing its solar and wind auctions to a successful conclusion could help increase confidence in its sustainable energy transition.

Across the region, forest biomass appears to be a blind spot in the countries' renewables legislation and incentive schemes, which needs to be addressed. Several of them have not even transposed the EU's insufficient bioenergy sustainability criteria from the 2018 renewable energy directive, while others have transposed it verbatim without considering that its thresholds might be much too high for smaller countries.

Appropriately sited solar and wind investments urgently need support, as do investments to improve grids, tackle energy losses in households and distribution networks. We can no longer afford to waste public funds on damaging energy sources like hydropower and forest biomass.



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⁷³ Balkan Green Energy News, '<u>Public consultation on Serbia's national energy and climate plan: Coal use to be cut 25% by 2030</u>', *Balkan Green Energy News*, 15 June 2023.