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Renewable Energy Policy

in Kosovo Lessons for 2030 Planning

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Renewable Energy Policy in Kosovo
Lessons for 2030 Planning

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Executive Summary

Kosovo, as a Contracting Party of the Energy Community Treaty and an aspiring EU member is obliged to follow EU energy and environmental policy, which has a clearly stated goal of decarbonisation of the economy by 2050 at the latest, as well as progressively more ambitious targets on renewable energy, energy efficiency and greenhouse gas reductions. In the last two years, the EU has ramped up its efforts in this field via the European Green Deal, and is currently agreeing on more ambitious targets than those originally planned for 2030.[1]

In November 2020, the Western Balkan states signed the Green Agenda for the Western Balkans,[2] which cemented their commitment to following the EU's pathway, and in particular to adopting the EU Climate Law, which is currently being finalised.

Kosovo is therefore pursuing a moving target and will have to run fast to catch up. The country is currently in the process of drawing up a National Energy and Climate Plan (NECP) for 2030, and defining its renewable energy, energy efficiency and greenhouse gas reduction targets.

This paper examines Kosovo's experience from its previous renewable energy target for 2020, and seeks to provide insights on how the planning process needs to be changed.

As a Contracting Party to the Energy Community Treaty, in 2012 Kosovo committed to reaching a target of 25 percent of its total energy consumption being from renewable sources by 2020, including a 10 percent share of renewable energy in transport.

Final data for 2020 is not yet available, but 2019 data shows that Kosovo has most likely met this target. However, this has happened more by accident than by design, due to the revision of its biomass data. There has been barely any progress made towards meeting the target for renewable energy in transport, a sector in which the only plan was to increase the use of imported biofuels.

Kosovo's plans to increase its renewable energy share in the electricity sector relied heavily on small hydropower plants, from which no less than 177 MW of capacity was expected to be added by 2020.

In reality, nine plants with a capacity of 50 MW were receiving renewables incentives by 2019, but they failed to generate a significant share of electricity (only 2.3 per cent in 2019) and caused serious environmental damage and public outcry.

Despite revising its National Renewable Energy Action Plan in 2018, Kosovo did not manage to build as much solar, wind or small hydropower capacity as originally planned, and as of 2019 had reached a share of only 5.15 percent of renewable electricity – lower than any other Energy Community country except Moldova.

The period between Kosovo setting its renewable energy target in 2012 and 2020 was characterised by renewable energy being constantly sidelined by plans for the Kosova e Re coal-fired power plant. Only in the last three or four years have wind and solar started to take off.

[1] *European Commission, Commission welcomes provisional agreement on the European Climate Law, 21 April 2021.*
[2] *Sofia Declaration on the Green Agenda for the Western Balkans, 10 November 2020.*

As it embarks on target-setting and energy planning up until 2030, Kosovo can and must learn from its experience up to 2020 in order to speed up its transition and make sure it is widely accepted by the public. This position paper presents a variety of recommendations based on the experience of the last eight years, particularly with the renewables incentives scheme put in place to support renewable electricity development.

These recommendations include the need to put environmental sustainability considerations at the heart of renewable energy planning and to make sure that heat, transport and the power sector are all equally planned for. Legislative changes are also needed in order to ensure that households can directly benefit from renewable energy, and to make sure that the energy produced is not only renewable but also environmentally and economically sustainable.

Introduction

Kosovo, as a Contracting Party of the Energy Community Treaty and an aspiring EU member, is required to follow EU energy and environmental policy. However, this is not only as a matter of obligation but desirable due to the public health and environmental benefits it brings.

The EU has a goal of decarbonisation of the economy by 2050 at the latest, meaning no coal, no oil and no fossil gas. In order to achieve this, it has made progressively more ambitious targets on renewable energy, energy efficiency and greenhouse gas reductions.

In the last two years, the EU has ramped up its efforts in this field via the European Green Deal, and is currently agreeing on more ambitious targets than those originally planned for 2030. In April 2021, the European Parliament and Council informally agreed on reductions of greenhouse gas emissions by 55 per cent compared to 1990 levels – up from an existing commitment of 40 percent. Renewable energy and energy efficiency targets are still to be discussed as part of the revised Renewable Energy and Energy Efficiency Directives.[3]

In November 2020, the Western Balkan states signed the Green Agenda for the Western Balkans,[4] which cemented their commitment of following the EU agenda, and in particular to adopt the EU Climate Law, which is currently being finalised.

Kosovo is therefore pursuing a moving target and will have to run fast to catch up. The country is currently in the process of drawing up a National Energy and Climate Plan (NECP) for 2030 and in defining its renewable energy, energy efficiency and greenhouse gas reductions targets.

This paper examines Kosovo's experience from setting its previous renewable energy target in 2012 up until 2020, and seeks to provide insights on how the planning process needs to be changed.

[3] *European Commission, Commission welcomes provisional agreement on the European Climate Law, 21 April 2021.*
[4] *Sofia Declaration on the Green Agenda for the Western Balkans, 10 November 2020.*

Overall 2020 renewable targets

Traditionally, Kosovo has been almost entirely dependent on lignite for its power generation. However, due to the need for expanded capacities, as well as a healthier and more flexible energy system, in recent years the country has started to develop more renewable energy sources.

As a Contracting Party to the Energy Community Treaty, Kosovo became obliged to increase its share of renewable energy in 2012, when the Energy Community Ministerial Council took a decision to adopt renewable energy targets for 2020, with 2009 as the baseline year.

The original 2009 Renewable Energy Directive (2009/28/EC) stipulated an EU-wide target of 20 percent share of renewable energy in gross final consumption of energy(not electricity) divided up into national targets depending on each country's starting point.

Later, separate targets were developed for the Western Balkan countries. Since these targets were based on the countries' starting position in 2009, some of the goals seem quite high compared to the overall EU target of 20 percent, particularly because the Balkan countries had quite high levels of renewable energy to start with compared to many EU countries.

Wood biomass use for heating is widespread[5] and most of the countries – although not Kosovo – have high levels of hydropower in their electricity mix.[6] So although the targets may look high, they were not particularly ambitious compared to the baseline situation.

Despite this, some of the countries have had difficulty in meeting them. As of May 2021, the final 2020 figures are not yet available, but 2019's figures give a good indication of the countries' progress (see Table 1, below).

Montenegro and Kosovo appeared to have met their 2020 targets by 2019, but this apparent achievement should be taken with caution. In both cases, the Energy Community has attributed the increase in renewable energy share to adjustment of statistics on the use of biomass rather than significant investment in renewables.[7]

Albania and Bosnia and Herzegovina most likely did not meet their targets, while Serbia and North Macedonia were both very far from meeting their targets by 2019.[8] North Macedonia was the first country in the Western Balkans to open a large-scale wind farm, in 2015, but its progress subsequently stagnated for several years. Serbia started late but had installed almost 400 MW of wind capacity by 2020.[9]

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[5] *The World Bank has estimated that overall in the Western Balkan region, biomass accounts for 42% of the energy required for heating. Source: World Bank,*

[6] *For an overview of the countries' energy mixes, see:*
https://bankwatch.org/beyond-coal/energy-sector-in-albania
https://bankwatch.org/beyond-coal/the-energy-sector-in-bosnia-and-herzegovina
https://bankwatch.org/beyond-coal/the-energy-sector-in-kosovo
https://bankwatch.org/beyond-coal/the-energy-sector-in-montenegro
https://bankwatch.org/beyond-coal/the-energy-sector-in-macedonia
https://bankwatch.org/beyond-coal/the-energy-sector-in-serbia

[7] *Energy Community Secretariat, 2020 Implementation report, November 2020, p.90 and 130.*

[8] *Igor Todorović, Bogdanci 36.8 MW wind farm starts regular operation, Balkan Green Energy News, 5 July 2015.*

[9] *Odluka o utvrđivanju energetskog bilansa Republike Srbije za 2021. godinu, Sl. glasnik RS, no. 156/2020.*

Country	2009 renewables share, %[10]	2020 target, %[11]	2019 renewables share, %[12]
Albania	31.2	38	36.67
Bosnia and Herzegovina	34.0	40	37.58
Kosovo	18.9	25	25.69
Montenegro	26.3	33	37.37
North Macedonia	21.9, later reduced to 17.2[13]	28, later reduced to 23[14]	16.81
Serbia	21.2	27	21.44

Source: Energy Community and Eurostat

Each country's renewable energy target for 2020 was made up of three sub-targets – for the power sector, for heating and cooling, and for transport. Of these, only the transport target was binding. The heating and cooling and power sub-targets could be adjusted as necessary to meet the overall target.

Kosovo set the targets shown in Table 2 in 2013 and then updated them in 2018. By 2019, its share of renewable energy in the heating and cooling sector was higher than planned, and consisted almost entirely of forest biomass. As mentioned above, this was not so much the result of investments, but rather of revision of the country's biomass data.[15]

But the share in the power sector and transport was much lower. In fact, the share in the transport sector was zero.

	Sub-targets set in 2013, %[16]	Sub-targets set in 2018, %[17]	Renewable energy share in 2019, %[18]
Electricity	25.64	14.6	36.67
Heating and Cooling	45.65	44.4	37.58
Transport	10	10	25.69

Table 2: Kosovo's renewable energy sub-targets for 2020 and 2019 share

Kosovo was not the only Western Balkan country to make little progress in using renewable energy in transport during this period – every country in the region other than Serbia had less than 1 percent of transport powered by renewable energy in recent years. Albania has increased its use of biofuels, but has not transposed the EU's sustainability criteria to ensure that they are not excessively impacting on food production or biodiversity.[19]

[10] *Energy Community Ministerial Council: Decision 2012/04/MC-EnC, 18.10.2012*
[11] *Energy Community Ministerial Council: Decision 2012/04/MC-EnC, 18.10.2012*
[12] *2020 data is not yet available at the time of writing in May 2021. All data in this column from Eurostat, Table NRG_IND_REN, last update: 02 April 2021.*
[13] *Energy Community: Decision 2018/02/MC-EnC amending Decision 2012/04/MC-EnC*
[14] *Energy Community: Decision 2018/02/MC-EnC amending Decision 2012/04/MC-EnC*
[15] *Energy Community Secretariat, 2020 Implementation report, November 2020, p.90.*
[16] *Ministry of Economic Development, Kosovo: National Renewable Energy Action Plan 2011-2020, 2013.*
[17] *Government Of Kosovo: National Renewable Energy Action Plan of the Republic Of Kosovo 2011-2020, Update For 2018-2020, October 2018. (It says May 2020 on the document but from other sources it is clear it was adopted in October 2018).*
[18] *Kosovo, Fourth Progress Report on promotion and use of energy from renewable energy sources, 2018-2019, 9 February 2021.*
[19] *Energy Community Secretariat, Annual Implementation Report 2020, November 2020.*

Moreover, the EU itself has had to backpedal on its own policies in this field. Its 2009 Renewable Energy Directive[20] encouraged the use of biofuels, subject to sustainability criteria. However, experience has shown that making fuels out of crops has led to deforestation and increased stress on land resources, as well as potentially inflating food prices.[21]

In late 2018 the EU adopted an updated Renewable Energy Directive (REDII).22 REDII virtually freezes the use of crop-based biofuels in road and rail transport at the levels used by each EU member state in 2020, which should in no case exceed 7 percent.[23] The Renewable Energy Directive will again come under revision during 2021 and environmental organisations such as Transport & Environment are trying to further restrict the use of biofuels in order to limit their environmental impacts and effects on land use for food production.[24]

Due to these impacts and changes in policy, growth in the use of renewable energy in transport has been relatively slow. As of 2019, the EU had achieved 8.4 per cent, leaving it unlikely to meet its 10 per cent target[25]. For these reasons, we consider it understandable that the Western Balkan countries did not make much progress.

Although the target was binding, and thus failure to meet it is a breach of the Energy Community Treaty, from an environmental point of view it might have been an advantage that the countries were slow to move in this field. The experience from the EU can help the Western Balkan countries avoid costly mistakes and help them to leapfrog to solutions which are truly sustainable.

The same cannot be said for the electricity sector, however. Many EU countries are moving towards high shares of renewable energy in power consumption. In 2019 the EU as a whole reached more than 34 per cent of electricity from renewable energy sources26, with Sweden and Austria reaching over 70 per cent, and even coal-heavy Germany and Romania reaching over 40 per cent each.[27]

Out of all the countries covered by Eurostat, which include the EU, the European Economic Area (EEA) and Energy Community countries, only Moldova had a lower share of renewable electricity consumption than Kosovo in 2019. [28]

Clearly the EU and EEA countries had an earlier start than Kosovo and have more resources, but still the question has to be asked: Why had Kosovo achieved only 5.15 per cent renewable electricity by 2019, despite the fact that wind and solar prices have been falling rapidly throughout the last decade?[29]

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[20] *Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.*

[21] *European Environment Agency, Indicator Assessment, Use of renewable fuels in transport in Europe, 17 December 2019.*

[22] *Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources.*

[23] *Article 26.*

[24] *Transport & Environment, What's the problem and how can we fix it?, undated, last accessed 30 May 2021.*

[25] *European Environment Agency, Use of renewable energy for transport in Europe, 8 December 2020.*

[26] *2020 data is not yet available at the time of writing in May 2021. All data in this column from Eurostat, Table NRG_IND_REN, last update: 02 April 2021.*

[27] *2020 data is not yet available at the time of writing in May 2021. All data in this column from Eurostat, Table NRG_IND_REN, last update: 02 April 2021.*

[28] *2020 data is not yet available at the time of writing in May 2021. All data in this column from Eurostat, Table NRG_IND_REN, last update: 02 April 2021*

[29] *IRENA, Renewable Power Generation Costs in 2019, June 2020.*

2020 plans versus reality

Kosovo's renewable energy action plans and incentives for renewable electricity

Under the 2009 Renewable Energy Directive[30], each country's government was required to develop a National Renewable Energy Action Plan (NREAP)[31] and take steps to enable the development of renewable energy sources.[32] Financial incentives for investors in renewable energy, such as feed-in tariffs, were not obligatory,[33]but were seen in the Directive as a way to encourage investors.

In 2013 Kosovo developed its first NREAP,[34] which detailed the expected proportion of each source of energy the country would attain by 2020. In 2017, adjustments were made to the proportion of each type of energy that would receive incentive tariffs (see below) and the whole NREAP was then updated in 2018. Yet even with the adjustments, Kosovo's achievements by 2019 did not correspond to the plan. In this section, we look at what can be learnt from this when planning for 2030

Unlike most of the governments in the region, Kosovo set a higher national renewable energy target than the binding one agreed with the Energy Community, which was 25 percent by 2020. Kosovo meanwhile, set a national target of 29.47 per cent, which was increased to 29.89 per cent in 2017.[35]

In the heating sector, most of the renewable contribution was expected to come from biomass, particularly firewood burned in households, with very small amounts from heat pumps and solar thermal. This was problematic, as the use of wood results in uncontrolled deforestation in Kosovo and also contributes to air pollution, particularly as many people use freshly cut wood instead of seasoned wood.

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The disparity between statistics on direct supplies of wood biomass from forests and those on biomass consumption suggest that 40 percent of public forests and 30 percent of private forests are subject to uncontrolled and illegal activities, including logging.[37]

Although Kosovo was considering setting an obligation for district heating operators to include a certain share of renewable energy in their operations, it did not expect district heating to contribute by 2020.[38]

In the transport sector, all of the renewable contribution was expected to come from imported bioethanol and biodiesel, and none from renewable electricity.[39]

In the electricity sector, the Government of Kosovo concentrated on the source it was already most familiar with: hydropower. Kosovo has the least hydropower potential in the region,[40] but this has not stopped a wave of new hydropower plants being built. At least 86 per cent of installed renewable electricity capacity was expected to be from hydropower.[41]

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[30] *Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC*

[31] *Article 4.*

[32] *Article 3.2*

[33] *Article 3.3. says that "In order to reach the targets set in paragraphs 1 and 2 of this Article Member States may, inter alia, apply the following measures: (a) support schemes;..." (Our emphasis)*

[34] *Ministry of Economic Development, Kosovo: National Renewable Energy Action Plan 2011-2020, 2013.*

[35] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 Renewable Energy Source targets*

[36] *Ministry of Economic Development, Kosovo: National Renewable Energy Action Plan 2011-2020, 2013. p.59.*

[37] *Ministry of Economy and Environment, 4th Renewable Energy Sources Progress Report of the Republic of Kosovo 2018-2019 According to the Renewable Energy Directive 2009/28/EC as adapted by the Ministerial Council Decision 2012/04/MC-EnC of the Energy Community, February 2021, p.24.*

[38] *Ministry of Economic Development, Kosovo: National Renewable Energy Action Plan 2011-2020, 2013. p.24 and 59.*

[39] *Ministry of Economic Development, Kosovo: National Renewable Energy Action Plan 2011-2020, 2013, p.60.*

[40] *Mott MacDonald/IPF Consortium, Regional Strategy for Sustainable Hydropower in the Western Balkans, Background Report No. 1 Past, present and future role of hydropower, Final Draft, WBIF, 3 November 2017, p.43*

[41] *IRENA, Renewable Power Generation Costs in 2019, June 2020.*

Table 2: Kosovo's power sector plans for renewable electricity compared with 2009 baseline, 1st NREAP, 2013[42]

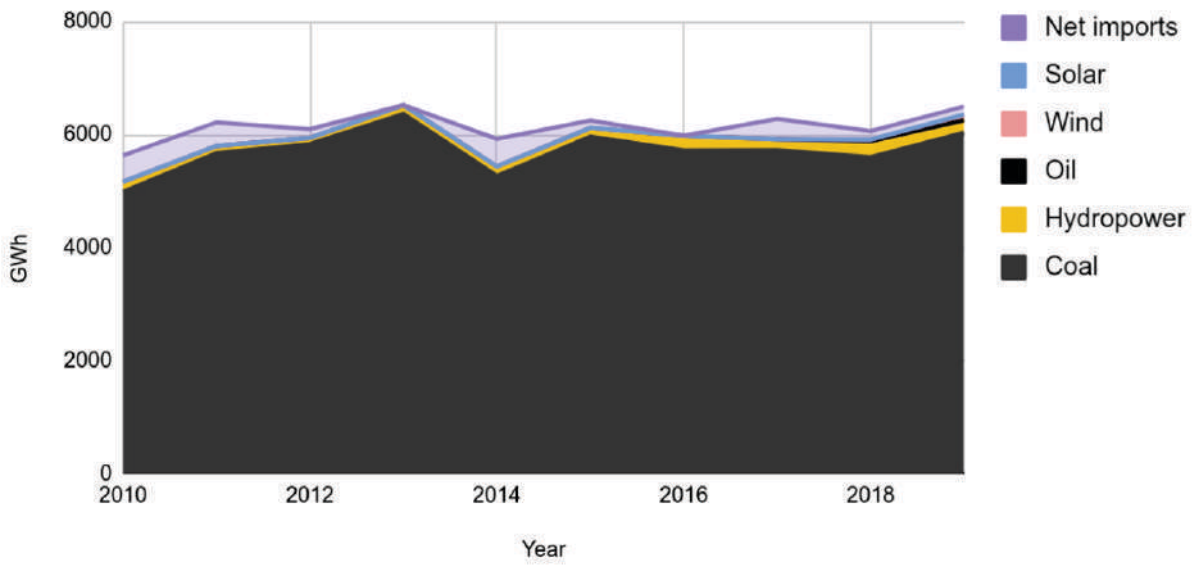
			25% target		29.47 % target	
	2009 MW	2009 GWh	2020 MW	2020 GWh	2020 MW	2020 GWh
Energy Source	45.84	128.94	447.84	965.4	590.84	1608.9
Hydropower	1.76	9.14[43]	8.76	47.89	16	87.47
<1 MW	9.08	31.9	99.08	441.51	234.84	1045.43
>10 MW	35	87.9	340	476	340	476
Solar photovoltaic	0	0	5	10.3	10	20.59
Wind	0	0	62.15	125.22	150	302.2
Solid biomass	0	0	5	37.5	14	105
Total	45.84	128.94	519.99	1138.42	764.84	2036.69

Source: Kosovo NREAP 2013

Most of the hydropower capacity was expected to come from Zhur 1 and 2, which were projected to add up to around 300 MW. A minimum of 97 MW of new small hydropower capacity was also planned to meet the 25 percent target, and around 225 MW of new, additional small hydropower capacity to meet the higher, national 29.47 per cent target. However, these estimates were not realistic.

Implementation of most renewable energy sources in the power sector got off to a slow start. As shown in the graph below (see Figure 1), by 2016, there was a small increase in hydropower. However, other resources had hardly started to be used.

Figure 1: Kosovo electricity mix and net imports



Source: International Energy Agency statistics

[42] *Ministry of Economic Development, Kosovo: National Renewable Energy Action Plan 2011-2020, 2013.*

[43] *2010 figure - no figure provided for 2009.*

In 2017, the Government issued an Administrative Instruction reiterating the binding targets on overall renewable energy share and renewable energy in transport, but increasing the so-called indicative target and the adjusted capacities that would be required to meet it.[44] This indicative target was Kosovo's own commitment to go beyond the target agreed on under the Energy Community Treaty.

The Administrative Instruction included more solar thermal and a small amount of geothermal supply for the heating and cooling sectors. However, the Instruction provided no new details of how the target in the transport sector would be met.

In the electricity sector, it increased the quota for solar photovoltaics by 20 MW, but also included even more small hydropower than the 2013 NREAP - around 277 MW of new capacity compared to what already existed in 2009.

Table 3: 2017 Administrative Instruction targets compared to 2009 baseline

Energy Source	2009 MW	2009 GWh	2020 MW	2020 GWh
Hydropower	45.84	128.94	593.18	1614
<1 MW	1.76	9.14	288	1216
1 MW-10 MW	9.08	31.9		
>10 MW	35	87.9	305	398
Solar photovoltaic	0	0	30	61.77
Wind	0	0	150	302.22
Solid biomass	0	0	20	150
Total	45.84	128.94	793.18	2127.99

Source: Administrative Instruction (Med) No. 05/2017 on Renewable Energy Source targets, Kosovo NREAP 2013

Again in 2017 the then-Government approved an Energy Strategy which mainly concentrated on building a new coal-fired power plant and did not introduce many new elements regarding renewable energy. For the most part, the strategy mainly reiterated what was already stated in other decisions and documents.

It did, however, include projections for renewable energy until 2026, but without describing new measures that could be introduced in order to achieve them. Even in the high scenario it included only 75 MW of solar photovoltaics, and contradicted the Administrative Instruction described above that was issued the same year, by including less new hydropower capacity - 160 MW in addition to the 74 MW already built.[45]

By this time it had also become clear that the original plans for the Zhur hydropower plants were not likely to happen any time in the near future as they would involve significant transboundary impacts regarding water flow to Albania. Several existing plants in Albania would also impact on the amount of water reaching the Zhur plants.[46]

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[44] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 on Renewable Energy Source targets*
[45] *Ministry of Economic Development: Energy Strategy of the Republic of Kosovo 2017-2026, 2017.*
[46] *Mott MacDonald/IPF3: Regional strategy for sustainable hydropower in the Western Balkans Background report no. 7: Inventory of planned hydropower plant projects, Final Draft 3, Western Balkans Investment Framework, November 2017*

In 2018 Kosovo updated its NREAP to reflect this fact.[47] The new NREAP showed that Kosovo was doing almost as well as expected towards meeting the heating and cooling element of the 25 per cent target, but was far behind in terms of developing renewable electricity. It therefore adjusted its ambitions, removing Zhur from its electricity plans by 2020 and somewhat increasing the amount of solar photovoltaics and wind to be built by 2020.

Table 4: Kosovo's power sector plans for renewable energy compared to 2009 baseline, 2nd NREAP, 2018[48]

	2009 MW	2009 GWh	2020 MW	2020 GWh
Hydropower	40	120	167.1	707
<1 MW	0	0	5.6	25
1 MW-10 MW	8	0	111.7	499
>10 MW	32	120	89.8	183
PV	0	0	30	37
Wind	0	0	173.8	350
Total	80	240	519.99	1138.42

Source: Kosovo NREAP 2018, p.44 and 45

The NREAP is aimed at finding a route to compliance with Kosovo's binding target. Unlike in some other countries in the region, it does not set a legal limit on how many power plants can be awarded operating subsidies. Instead, that limit is set by the 2017 Administrative Instruction on renewable energy targets.[49] Therefore, changing the NREAP to reduce Kosovo's hydropower ambitions did not reduce the number of plants that could be subsidised.

Small hydropower: Low electricity contribution but serious damage

By the end of 2019, Kosovo had just under 100 MW of hydropower in operation, including the 35 MW Ujmani plant. Around half of this installed capacity consisted of older plants outside of the incentive scheme, some of which had been renovated and brought back into use. This means that a total of nine plants producing a total of 50.02 MW were receiving feed-in tariffs by the end of 2019.[50]

Several of the planned and already constructed plants are in sensitive locations, including national parks, which are supposed to be protected by law from activities that damage their natural value.

While many people assume that small plants only have a small impact, this has not been the case in the ecologically valuable rivers of the Balkans. A lack of strategic planning and non-existent or inadequate legislation on the amount of water to be left running downstream of dams mean that riverbeds have sometimes been left completely dry.

[47] *Government Of Kosovo: National Renewable Energy Action Plan of the Republic Of Kosovo 2011-2020, Update For 2018-2020, October 2018. (It says May 2020 on the document but from other sources it is clear it was adopted in October 2018).*
[48] *It is not clear why the 2009 figures are different from those in the original 2013 NREAP.*
[49] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 on Renewable Energy Source targets.*
[50] *Kosovo Energy Regulatory Office, Annual Report 2019, March 2020.*

These small plants are usually derivation-type plants, which see rivers and streams dammed and put into pipes to increase the velocity of the water and the efficiency of the plant. In some cases, local people have been left without water for irrigation or to supply their livestock. Meanwhile, deforestation due to the construction of access roads and pipelines has led to erosion and habitat destruction, while the laying of pipelines has disrupted kilometre after kilometre of river banks.

Among the most controversial plants in Kosovo are those built on the Deçani river in the Bjeshkët e Nemuna National Park by Austrian-owned company Kelkos, a subsidiary of Kelag.[51]

Hydropower in the Bjeshkët e Nemuna National Park

The Belaja and Deçani hydropower plants built by Kelkos started operating in 2016 and immediately became part of Kosovo's feed-in tariffs incentive scheme.[52] The same year, KelKos Energy was sued by the Inspectorate of Deçan/Dečani, which initiated legal proceedings against the company after finding environmental damage had been caused to mountain rivers in the area. The company had allegedly failed to ensure that the waterflow of the river would not drop below 30 per cent of the river's full capacity.

According to a report from the Inspectorate obtained by BIRN, inspectors found that the flow of the river was completely disrupted along approximately seven kilometres of the Lumbardhi River as a result of the passage of water into the turbines' supply pipes.[53]

Initially the Energy Regulatory Office had allowed the plants to operate, but a court case was launched and an interim court decision in December 2020 meant that the Belaja and Decan plants had to be disconnected from the grid.[54] However, in June 2021, the Court of Appeals reversed this decision, allowing Kelkos Energy to continue producing energy from Kosovo's limited water resources.[55]

In April 2021, the new Minister of the Environment, Spatial Planning and Infrastructure informed the public that he would form an inter-institutional working group, which would review the administrative procedures that apply to existing hydropower plants and their impact on the environment, as well as oversee the application process of obtaining water rights, specifically for hydropower plants.[56]

Not wanting to be subjected to the same fate as residents in Deçan/Dečani, other communities in Kosovo, including in Pejë/Peć[57] and Shtërpcë/Štrpce,[58] have stood up to the hydropower developers – just as they have across the rest of the Balkans.

In 2019, attempts by residents of Shtërpcë/Štrpce to halt the construction of a series of hydropower plants by the Matkos Group around the Lepenc river in the Sharri Mountains came to wider public attention.[59] Construction of the Vica, Shtërpcë and Sharri projects, had been ongoing for quite some time by that stage and one plant, Brezovica, was already complete. Local residents' water supply had been cut off by the construction, causing additional protests.[60]

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[51] *Riverwatch, Another slap in the face for Kelag in Kosovo, 13 December 2020.*
[52] *Kosovo Energy Regulatory Office, Annual Report 2019, March 2020, p.76*
[53] *Egzon Dahsyla: Outgoing environment minister lifts ban on hydropower plant permits, Prishtina Insight, 27 September 2019.*
[54] *Riverwatch, Another Slap in the Face for Kelag in Kosovo, 13 December 2020.*
[55] *Drenushe Ramadani, Apeli vendos në favor të 'KelKos Energy' për hidrocentralet në Deçan, KALLXO.com, June 3, 2021.*
[56] *Drenushe Ramadani, Ministri Aliu paralajmëron shqyrtim të lejeve të hidrocentraleve, KALLXO.com, 24 April 2021.*
[57] *Die Morine and Drenushe Ramadani, Kosovo halts power plant after the protest in Peja, Prishtina Insight, 25 February 2019.*
[58] *Prishtina Insight, "Without water, life cannot continue say hydropower protestors, 02 July 2019.*
[59] *Prishtina Insight, "Without water, life cannot continue say hydropower protestors, 02 July 2019.*
[60] *Kosovo Online, Zbog izgradnje mini hidrocentrale, meštani sela Donja Bitinja ostali bez vode za piće, 3. decembar 2019.*

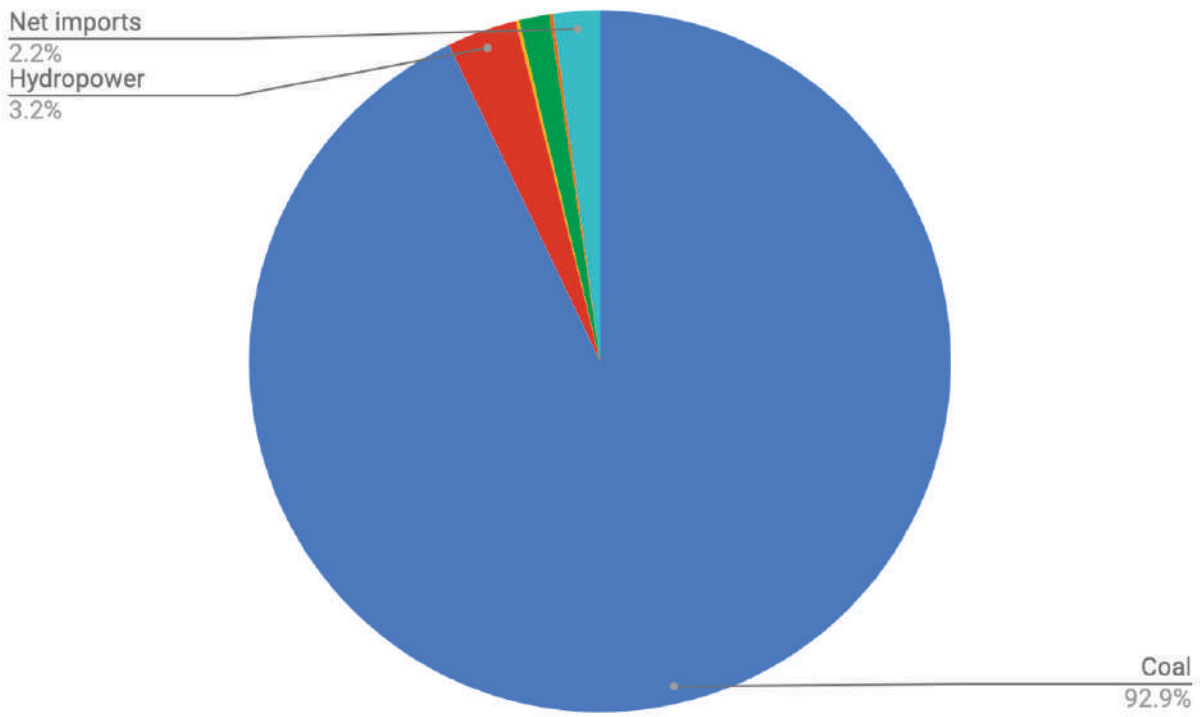
In February 2019, an inter-institutional committee overseen by the Ministry of the Environment, Spatial Planning and Infrastructure gave the green light to Kelkos to start the construction of more hydropower plants in the Municipality of Pejë/Peć, both on the Lumbardhi river and in the Bjeshkët e Nemuna National Park. This sparked resistance from the public, the Pejë/ Peć local authorities, environmental activists and other members of civil society.[61] By the end of the month, due to the intensity of the protests, the plans had been cancelled.[62]

The contrasting outcomes in Pejë/ Peć and Shtërpcë/ Štrpce are partly a result of the different stages at which the local communities became aware of the projects, with people in Pejë/ Peć discovering the plans in time to be able to react promptly and prevent their construction. This is relatively unusual, and a lack of public consultation and information about specific projects often results in sudden protests by the population at a relatively late stage.

In February 2021, the Kosovo Ombudsman published the results of an investigation into small hydropower construction, finding that the Ministry for Environment and the local authorities have failed to provide accurate and complete information on whether the hydropower plants are operating in line with legal requirements. It was also found that the ministry had failed to respect the principle of public participation in decision-making, and recommended the publication of all documents related to the projects.[63]

Perhaps most damningly considering all of the controversy and environmental destruction, small hydropower plants in Kosovo contributed only 2.3 percent of electricity generation in 2019.[64]

Figure 2: Kosovo electricity generation 2019



Source: Source: IEA Statistics for 2019

[61] *Lumbardhi në Gypa, Life in Kosovo, 28 February 2019.*
[62] *Die Morina and Drenushe Ramadani, Kosovo halts power plant after the protest in Peja, Prishtina Insight, 25 February 2019.*
[63] *Kosovo Ombudsman, Report with recommendations Ex officio 365/2018 Against Ministry of Economy and Environment Regarding the issue of lawfulness of the procedures concerning the hydropower plants in the country as well as access to documents related to hydropower plants, 3 February 2021.*
[64] *Kosovo Energy Regulatory Office, Annual Report 2019, March 2020. Calculated from p.78 and p.79 of the English version.*

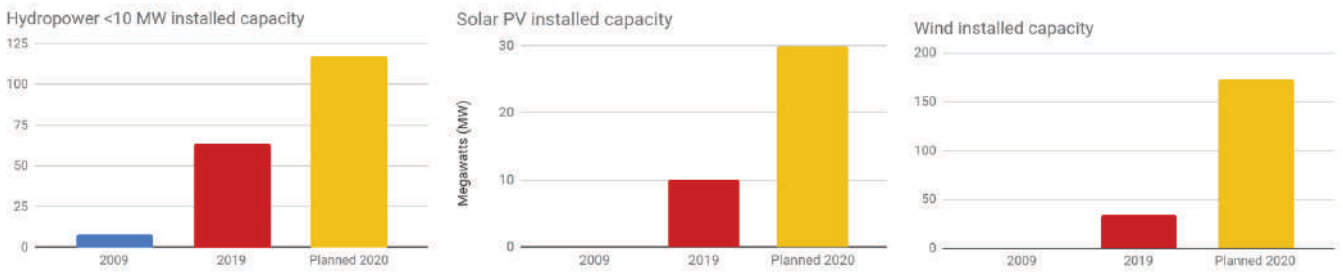
Renewable electricity plans not achieved

In 2017, the government approved[65]quotas for feed-in tariffs, including for up to 277.34 MW generated by hydropower plants under 10 MW. However, the quotas only extended to 150 MW of wind power and a mere 30 MW of solar photovoltaics.[66] The 2018 NREAP further increased the capacity of planned wind plants to 173.8 MW by 2020.[67]

In reality, even fewer solar and wind plants have been built – only 10 MW of solar photovoltaics by the end of 2019 and just under 34 MW of wind[69], although the 105 MW Bajgora plant is now under construction as well.

Furthermore, despite the damage, Kosovo's hydropower development plans are still far from realised. The table below shows the difference between the installed capacity in 2010, 2019 and Kosovo's plan for 2020 as outlined in its latest NREAP from 2018.

Figure 3: Installed small hydropower, solar PV and wind in Kosovo, compared to plans for 2020



Source: National Renewable Energy Action Plan 2013,[70] National Renewable Energy Action Plan 2018,[71] and the Energy Regulatory Office annual report 2019.[72]

The reasons for this failure to build as much capacity as planned are numerous, but one overarching reason is the insufficient attention given to renewable energy by successive governments – especially compared to the amount of time, energy and money spent on developing the now cancelled Kosova e Re coal plant project.[73]

Feed-in tariffs aimed mainly at hydropower

One of the main drivers for the development of renewables across most countries in Europe has been the "feed-in tariffs" system.

The system enables renewable energy producers to have all their electricity bought at a price fixed in advance, one which is higher than the market price. This allows investors to build renewable energy facilities with a very reliable income flow, meaning that the investments are low risk. In turn, this also incentivises banks to provide loans for their construction, as the chances of the loan being paid back are very high.

Originally foreseen as a means to boost all forms of renewable energy in Kosovo, including solar and wind, as in the rest of the Western Balkans, they have been disproportionately directed towards small hydropower plants.

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[65] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 on Renewable Energy Source targets*

[66] *An increase in the solar quota by 20 MW was approved by the Energy Regulatory Authority in 2019, but in 2020 the State Aid Commission ruled that the decision was not in line with EU State Aid rules which are binding on Kosovo via the Energy Community Treaty. Vladimir Spasić, Feed-in tariffs for solar power plants with installed capacity of 20 MW in Kosovo to be halted, Balkan Green Energy News, 2 December 2020.*

[67] *Government Of Kosovo: National Renewable Energy Action Plan of the Republic Of Kosovo 2011-2020, Update For 2018-2020, October 2018, p.44.*

[68] *Kosovo Energy Regulatory Office, Annual Report 2019, March 2020.*

[69] *Kosovo Energy, Në Bajgorë është bërë vendosja e turbinës së parë për prodhimin e rrymës, 17 May 2021.*

[70] *Kosovo government: National Renewable Energy Action Plan, 2013.*

[71] *Government Of Kosovo: National Renewable Energy Action Plan of the Republic Of Kosovo 2011-2020, Update For 2018-2020, October 2018.*

[72] *Kosovo Energy Regulatory Office, Annual Report 2019, March 2020. Calculated from p.78 and p.79 of the English version.*

[73] *Pippa Gallop, ContourGlobal finally quits Kosova e Re coal plant, CEE Bankwatch Network, 17 March 2020.*

The system enables renewable energy producers to have all their electricity bought at a price fixed in advance, one which is higher than the market price. This allows investors to build renewable energy facilities with a very reliable income flow, meaning that the investments are low risk. In turn, this also incentivises banks to provide loans for their construction, as the chances of the loan being paid back are very high.

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Feed-in tariffs in Kosovo

The feed-in tariff system has been widely used in the EU but is now being phased out for plants larger than 500 kW as renewable energy becomes more established. Since December 2020, Kosovo's Energy Regulatory Authority (ERO) no longer awards new feed-in tariffs for plants which had not already received Preliminary or Final Authorizations and which fitted into the quotas set for the amount of capacity that could receive incentives. However, as projects that were already accepted into the incentives[74] system will continue to receive feed-in tariffs, the concept is explained below.

Until the ERO's December 2020 decision, a producer planning to produce renewable electricity applying to the ERO for authorization to build a renewable energy facility was also allowed to request admission into the support scheme. First a Temporary Authorization to construct was issued, and this secured the right to later receive a feed-in tariff as long as the plant fitted within the quota for each technology. However, the right to build the plant is only given via a Final Authorization.

After KOSTT, as the Market Operator, has set up the power purchase agreement with the plant operator, KOSTT, as the Transmission System Operator, or KEDS, as the Distribution System Operator, is legally obliged to buy an agreed amount of electrical energy from privileged producers at an incentive price for a fixed period of 10-12 years, depending on the technology.[75]

Such a system can only be applied to a limited amount of renewable energy capacity, otherwise it incurs high costs for consumers. Therefore Kosovo placed limits on the amount of new capacity that can receive feed-in tariffs. However, it has not treated different sources of energy equally. Wind and solar were subject to low quotas for the amount of capacity that could receive feed-in tariffs, while small hydropower plants had a very high quota.[76]

Despite generating only 2.8 per cent of Kosovo's domestically generated electricity in 2018, (154 GWh out of 5,437 GWh[77]) hydropower plants with a capacity smaller than 10 MW received 6.5 million euros from a total of 9 million euros[78] paid out in feed-in tariffs. In other words, hydropower received 72.6 per cent of feed-in tariffs.

Solar photovoltaics received 0.2 million euros and wind 2.2 million euros, after the Kitka wind farm came online in the latter part of the year (Air Energy in the Table below)[79]. Both of these generated less than 1 percent of Kosovo's domestically generated energy in 2018.[80]

Costs for renewable energy incentives appear to have increased to 15.7 million euros in 2019[81] and to 18.6 million euros in 2020[82]. However, to the best of our knowledge, no publicly available breakdowns are available for these years. It is expected that the share of incentives for wind increased due to the Kitka wind farm coming online in late 2018.

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[74] *Kosovo Energy Regulatory Office, Decision V_1321_2020, 10 December 2020.*
[75] *ERO Rule No.10/2017, Rule on the support scheme for renewable energy sources generators, 27 April, 2017*
[76] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 on Renewable Energy Source targets.*
[77] *Kosovo government: Office of the Prime Minister and Agency for Statistics: Annual energy balance for 2018, 2019.*
[78] *KOSTT: Response to information request, 30 August, 2019.*
[79] *KOSTT: Response to information request, 30 August, 2019.*
[80] *Kosovo government: Office of the Prime Minister and Agency for Statistics: Annual energy balance for 2018, 2019.*
[81] *Grant Thornton, Financial Statements and Independent Auditor's Report, Transmission, System and Market Operator-KOSTT J.S.C., p. 28, 31 December 2019.*
[82] *RSM Kosovo, Financial Statements and Independent Auditor's Report, Transmission, System and Market Operator-KOSTT J.S.C., p. 31, 31 December 2020.*

Even the nascent solar sector has not been immune from corruption issues, as a Prishtina Insight investigation showed in June 2020. While the rules in Kosovo stipulate that no single investor can produce more than three megawatts of solar energy, it was revealed that one man – Blerim Devolli – stands behind six companies awarded the rights to produce a total of 16.7 MW.[83]

In 2019, the Energy Regulatory Office approved a feed-in tariff rate for an additional 20 MW of solar photovoltaics, in line with the 2017 Administrative Instruction described above.[84] However, on 24 November 2020, perhaps influenced by the controversy generated by the Prishtina Insight article, as well as ongoing pressure by the Energy Community Secretariat, the State Aid Commission of Kosovo rendered its first-ever decision concerning State aid in the energy sector.

It found that an administratively set feed-in-tariff for 20 MW of photovoltaic projects did not comply with the State aid acquis because it was not notified to the competent State aid authority before it was granted, and is not in line with the EU's Guidelines on State aid for environmental protection and energy.[85]

Since Kosovo's feed-in tariff system was aimed at meeting 2020 targets, in December 2020 the Energy Regulatory Authority annulled the scheme, preventing new plants from entering. Nevertheless, feed-in tariffs will still be paid out to plants already in the scheme until the point that their contracts expire.[86]
The lessons learned from Kosovo's renewable energy planning up to 2020 are summarised below in the Recommendations section.

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The 2030 perspective - what is expected of Kosovo?

The Renewable Energy Directive II,[87] 2030 targets and National Energy and Climate Plans

In December 2018 a new Renewable Energy Directive entered into force in the EU, which continues to employ the definition of renewable energy set in 2009. It defines 'energy from renewable sources' as "energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases".

The Directive contains an overall renewable energy target of 32 per cent of gross final energy consumption by 2030. EU Member States need to set national contributions to meet, collectively, the binding overall Union target as part of documents called integrated national energy and climate plans (NECPs).

The so-called EU Governance Regulation[88] set out the requirements for such plans. They bring together greenhouse gas emissions reductions targets, renewable energy targets and energy efficiency targets, and are to be drawn up for ten-year periods, with the first NECPs covering 2021-2030. This means that there is no longer an obligation to produce separate National Renewable Energy Action Plans.

However, the European Commission has now proposed to raise the EU's greenhouse gas reduction target to 55 percent[89] compared to 1990 levels, from the current target of 40 percent. To reach such a target, the 2030 renewable energy target will have to be raised as well. No drafts are publicly available yet but media reports suggest the Commission will propose a target share of 38-40 percent of renewable energy by 2030.[90]

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[83] *Visar Prebreza and Jeta Xharra, Unclean energy: The Kosovar who would own the sun, Prishtina Insight, 2 June 2020.*

[84] *Energy Regulatory Office, Decision on determination of Feed-in Tariff for generation of electricity from solar panels/photovoltaic, only for the additional targets of 20 MW, in line with the Administrative Instruction No. 05/2017 on Renewable Energy Sources Targets, 27 November 2019.*

[85] *Energy Community Secretariat, State aid authority of Kosovo renders first decision regarding incompliant State support to renewables, 26 November 2020.*

[86] *Kosovo Energy Regulatory Office, Decision V_1321_2020, 10 December 2020.*

[87] *Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources*

[88] *Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council.*

[89] *European Commission, 2030 climate & energy framework, last accessed 27 May 2021.*

[90] *Frédéric Simon, 'Leak: EUs draft renewables law confirms 38-40% target for 2030, Euractiv, 4 May 2021.*

Discussions within the Energy Community are currently underway to decide on 2030 targets. A study carried out by the E3M consortium is ongoing as of May 2021 and is expected to provide a baseline scenario as well as a methodology for target setting, to be presented in July 2021 at an informal meeting of the Energy Community's Ministerial Council. If all goes well, the targets would then be adopted at the November 2021 Ministerial Council meeting.[91]

The development of 2030 targets and NECPs are a necessary step to make sure the transition away from fossil fuels and towards an energy-efficient, renewables-based society continues, but as with the 2020 targets, there is still a danger that hydropower and other unsustainable renewable technologies will benefit. It is up to governments, experts and civil society to make sure this does not happen.

Renewable energy incentives schemes until 2030

There are three main documents laying out the EU's rules on renewable energy incentives:

- The Renewable Energy Directive II
- The so-called Energy and Environment State Aid Guidelines 2014-2020 (EEAG)[92]
- The so-called General Block Exemption Regulation.[93]

All of these are currently undergoing revision,[94] with the latter two planned to be finalised in 2021 and only the new Renewable Energy Directive to be concluded later on. For this reason, Kosovo will need to monitor very carefully what is happening at the EU level and be ready to adapt.

However, for now it will just need to comply with the current versions of these documents, all of which take a similar approach to incentivising investments in renewable energy and restrict feed-in tariffs to only the smallest plants. The EEAG provides the most details, so is outlined at more length below.

Energy and Environment State Aid Guidelines 2014-2020 (EEAG)[95]

In 2014, the EU Directorate-General for Competition issued updated rules on incentivising renewables in its Energy and Environment State Aid Guidelines 2014-2020 (EEAG), which brought about significant changes compared to the 2009 Renewable Energy Directive and ensure that renewables investors are exposed to at least some market risks. Although called "Guidelines", these are obligatory, although EU Member States can challenge them at the European Court of Justice if they find them contradictory to the Treaty on the Functioning of the European Union.

The EEAG requires a more market-based approach to be taken in supporting renewable energy, to strike a better balance between providing support while avoiding excessive costs for the public. The Energy Community countries need to introduce these rules but progress has been patchy. [96]

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[91] *Energy Community, Minutes of the Meeting of 6th Energy and Climate Technical Working Group, 23 February 2021.*

[92] *European Commission, –Communication from the Commission Guidelines on State aid for environmental protection and energy 2014-2020, last accessed 27 May 2021.*

[93] *Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, last accessed 27 May 2021.*

[94] *See European Commission, –State aid for environmental protection and energy revised guidelines, public consultation, –State subsidies exemptions to approval requirement for the Green Deal and EU industrial and digital Strategies, EU renewable energy rules - review, all last accessed 27 May 2021.*

[95] *European Commission, –Communication from the Commission Guidelines on State aid for environmental protection and energy 2014-2020, last accessed 27 May 2021.*

[96] *CEE Bankwatch Network, Renewable energy incentives in the Western Balkans, January 2021.*

Article 18 of the Energy Community Treaty states that: “The following shall be incompatible with the proper functioning of the Treaty, insofar as they may affect trade of Network Energy between the Contracting Parties:

... (c) any public aid which distorts or threatens to distort competition by favouring certain undertakings or certain energy resources.

2. Any practices contrary to this Article shall be assessed on the basis of criteria arising from the application of the rules of Articles 81, 82 and 87 of the Treaty establishing the European Community (attached in Annex III).”

Any changes to the legislation on renewables incentives would apply to new projects, but not to agreements already signed with investors before they entered into force. The goal is to eventually phase out most renewable energy subsidies as renewable sources become cost-competitive.

It can be argued that hydropower is in some cases already cost-competitive, but as the logic of the EU rules on state aid is based on technology-neutral achievement of the targets, there is little chance that the EU will move to prevent subsidies for some sources before others.

However, there are some environmental sustainability criteria already in place, such as the requirement for hydropower to be in line with the Water Framework Directive and other EU environmental legislation.

The main new features in the EEAG regarding renewable energy incentives are:

- Since January 1, 2017, in the EU subsidies must be awarded on the basis of market instruments, such as an auction or competitive bidding process open to all generators producing electricity from renewable energy sources.

- Technology-specific tenders are allowed on the basis of a technology's longer-term potential, the need to achieve diversification, network constraints and grid stability and system integration costs. The exceptions are installations with an installed electricity capacity of less than 1 MW or demonstration projects, except for electricity from wind energy, where it does not apply for installations with an installed electricity capacity of up to 6 MW or 6 generation units. For these smaller units no auctions are necessary.

- Since January 1, 2016, all new aid schemes and measures have had to grant aid as an additional premium in addition to the market price. So instead of covering the whole purchase price of the electricity with state aid, State aid can only top-up the market price by paying a premium (see Figure 4). This should reduce costs for the final consumers. The exceptions are installations with an installed electricity capacity of less than 500 kW or demonstration projects, except for electricity from wind energy, where an installed electricity capacity of 3 MW or 3 generation units applies. For these units feed-in tariffs are still permitted.

Figure 4: Feed-in tariff model vs. sliding feed-in premium model[97]

Source: Adapted from Banja M. et al: Renewables in the EU: the support framework towards a single energy market

In order for sliding premium systems to work, a functioning day-ahead electricity market is needed in order to know what the market price is and therefore how much premium needs to be paid to top it up to the agreed amount.

Therefore, the Energy Community and EBRD have issued some guidelines especially aimed at the Energy Community countries, suggesting a way forward until these markets are in place.[98] One suggestion is to continue allowing feed-in tariffs for some time, but to reduce their costs by awarding them through an auction rather than on a first-come, first served basis.

Producers would therefore pledge a price of production which they consider they can achieve, and those bidding the lowest price would be awarded the right to sign a contract for feed-in tariffs if they succeed in building the plant.

These, like feed-in-tariffs, may lead to high consumer costs if not used sparingly. But the advantage of the new system is that investors have to closely analyse their investments in advance – if they bid too high a price, they will not win the auction, and if they bid too low a price, they will not be able to really produce for that price and will lose money.

Designing such auctions with appropriate rules is a complicated matter and it is not necessary to go into all the details here. What matters for improving the environmental sustainability and public acceptance of renewable energy in Kosovo is predominantly which technologies will be eligible, whether environmental criteria such as no-go zones will be set, and whether the auctions will include unsustainable forms of energy.

[97] *Banja M., Jégard M.,Monforti-Ferrario F., Dallemand J.-F.,Taylor N., Motola V., Sikkema R., Renewables in the EU: the support framework towards a single energy market - EU countries reporting under Article 22(1) b, e and f of Renewable Energy Directive, EUR 29100EN, Publication Office of the European Union, Luxembourg, 2017.*

[98] *European Bank for Reconstruction and Development and the Energy Community Secretariat in collaboration with the International Renewable Energy Agency: Competitive Selection and Support for Renewable Energy Policy Guidelines, March 2018.*

Legislative changes needed

As of June 2021, Kosovo's legislation is still very much geared towards meeting the 2020 targets and no targets for 2030 have yet been set. The 2018 Renewable Energy Directive has not been transposed, and all references to incentives for renewable energy are related to feed-in tariffs rather than auctions and premiums.

Legislation enabling households to become prosumers (producing their own electricity and feeding any excess into the grid) is still missing and needs to be adopted as soon as possible, while biomass and biofuels' sustainability criteria are absent too.

We have also identified several other issues in the legislation that need to be addressed.

The Law on Energy[99]

The Law on Energy defines the general framework for the promotion of renewable energy and also outlines the process for developing the national energy strategy and the NREAP. It includes a reference to providing incentives, but does not go into any details. Considering that the NREAP may no longer be needed after 2020, the law most likely requires changes.

In any case, there is a problematic feature of this Law in regard to renewables – the definition provided in Article 3:
"1.5. Renewable Energy Sources – renewable non-fossil energy sources, such as: wind energy, solar energy, geothermal waters, wave energy, hydro energy, biomass, waste landfill gas, wastewater treatment gas, biogas, as well as every technology that generates electricity and has the certificate of guaranteeing institutions for this technology".

The last part of this definition deviates from the EU Renewable Energy Directive (see above). The scope of the Kosovo definition is too broad, and risks allowing non-renewable forms of energy such as gas, coal or hydrogen made using these sources to be included in incentive schemes. This definition needs to be changed.

The Law on Electricity[100]

The Law on Electricity lays out in very general terms the concept of feed-in tariffs for renewable energy. It introduces the concept of an Eligible Producer (i.e. a producer that can receive incentives) in Article 3:

"1.78. Eligible Producer – an energy undertaking and/or other legal or natural person that produces energy from renewable sources or simultaneously produces electricity and thermal energy in a highly efficient manner in a single generation plant, uses waste or renewable energy sources in an economically viable manner in compliance with environmental protection."

The definition of renewable sources in this law is aligned with the EU definition, unlike in the Law on Energy, but the phrase "uses waste or renewable energy sources" raises concern. In the EU, incentives for highly efficient cogeneration are allowed, and this has been seen to include waste incineration plants (including non-organic waste) that generate heat and electricity, if they qualify as highly-efficient.

However, the EEAG makes clear that this only applies if the waste hierarchy is adhered to, which, considering the lack of waste prevention and recycling, is unlikely to be the case in Kosovo.

[99] *Law on Energy, nr.05/L-081, Official Gazette of the Republic of Kosovo No.24, 13 July 2016.*

[100] *Law on Electricity nr.05/L-085, Official Gazette of the Republic of Kosovo, No.26, 21 July 2016*

In addition, the formulation here does not stipulate adherence to the EU formula laid out in Annex II of the Energy Efficiency Directive[101] in deciding whether a plant qualifies as high-efficiency. Finally, it does not restrict support to combined heat and power plants on waste, but potentially allows support to plants generating electricity only, or heat only, from waste including non-organic waste, in contravention of EU legislation. This article therefore needs to be changed.

Article 8.5. of the Law on Electricity stipulates that the Transmission System Operator (TSO) or Distribution System Operator (DSO) must, in accordance with requirements for reliability and operational safety, buy all electricity produced by eligible producers of electricity subject to the conditions laid down by relevant regulations, particularly the Transmission Grid Code and the Distribution Grid Code.

Article 23 also specifies that the Market Operator is responsible for: "conclusion of sale and purchase agreements for the obligatory portion of electricity generated from renewable energy sources and cogeneration."

In order to move to an auction and feed-in premium system, this would need to be changed, because it would no longer be obligatory for the TSO or DSO to buy all the electricity from all Eligible Producers, except potentially for the smallest ones (under 500 kW in most cases). Instead, the electricity would be sold on the open market, with only a premium paid to the producer to make up for any difference between the market price and the price that the producer had pledged to produce the energy for during the bidding process.

Implementing legislation which has become obsolete

Several pieces of implementing legislation have already become obsolete with the expiry of the 2020 target period. These include:

- Administrative Instruction No. 5/2017 on renewable Energy Source Targets,[102]
- Energy Regulatory Office (ERO) Rule No.10/2017 on the support scheme for renewable energy sources generators[103] and
- ERO Decision V_810_2016 determining feed-in tariffs for the production of electricity from Renewable Energy Sources[104]

The Administrative Instruction was the key document which defined the total renewable energy capacity that could receive feed-in tariffs[105] in order to contribute to Kosovo's 2020 target.

Meanwhile, Rule No.10/2017 laid down more details on the feed-in tariffs scheme. It will have to be completely rewritten or replaced in order to adjust to a support scheme based mainly on auctions and premiums.

The process for setting the tariffs for the support scheme is described in Article 9, which mentions both feed-in tariffs and feed-in premiums. However, as none of the legislation requires auctions to compete for these premiums, and as no parameters are given for the amount of capacity to be awarded premiums or the plant size threshold, this cannot be considered sufficient to comply with the EEAG.

ERO Decision V_810_2016 regulated the level of feed-in tariffs in new power purchase agreements. It also mentioned the maximum size of plants that could receive feed-in tariffs and how much of each technology could be incentivised in total, but these sections were already out of date by 2017, when the Administrative Instruction outlined above was issued.

Once Kosovo switches to auctions and premiums, it may, if it wishes, retain feed-in tariffs only for plants below 500 kW, with exceptions for wind (see the EEAG). However, the current tariffs from 2016 are out of date and would need to be updated anyway, thus the Decision should be completely re-written.

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[101] *Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, amended by Council Directive 2013/12/EU of 13 May 2013, Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018, Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018, Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 and the Commission Delegated Regulation (EU) 2019/826 of 4 March 2019. Consolidated version available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02012L0027-20190612&from=EN*

[102] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 on Renewable Energy Source targets.*

[103] *ERO Rule No.10/2017, Rule on the support scheme for renewable energy sources generators, 27 April, 2017.*

[104] *ERO Decision V_810_2016 determining feed-in tariffs for the production of electricity from Renewable Energy Sources, 19 May 2016*

[105] *According to Article 6 of the Energy Regulatory Office's 2017 Rule on Support Scheme for Renewable Energy Sources Generators.*

Moves towards changes in Kosovo's incentives system made so far

Changes in Kosovo's incentives system are needed, both in order to comply with the country's Energy Community State Aid commitments and to ensure that the costs of support for renewable energy do not become too high or continue to support damaging technologies.

Such changes would apply to new power plants that have not already applied for preliminary approval at the time the new legislation is passed. For existing plants and those that have already started procedures to obtain incentives, their compliance will have to be assessed one by one.

In November 2017, Kosovo's then Minister of Economic Development, Valdrin Lluka, unveiled plans to develop an auction scheme in Kosovo that would help to increase investments in solar generation.[106]

Not much visible progress was made until September 2019 when the EBRD announced that it was looking for a consultant to strengthen the legal and regulatory framework for renewable energy auctions; develop all auction documentation required for a solar photovoltaic auction and a wind auction; provide the authorities with detailed technical, financial and legal assistance for the implementation of one round of auctions; and develop a framework for a future competitive procurement scheme.[107]

In November 2019 the IFC also announced that it has been retained as lead transaction advisor by the Government of Kosovo to procure the development, construction and operation and maintenance of 50 MW of utility-scale solar photovoltaic power.[108]

What we have seen in North Macedonia is that the Government introduced auctions and premiums for solar and wind, but left feed-in tariffs intact for hydropower. This gives hydropower an advantage in the market and is currently subject to a complaint to the Energy Community by Eko-svest and Bankwatch.[109] Such a scenario must be avoided in Kosovo, which has already taken the first step by annulling the feed-in tariffs system in December 2020.[110]

Assuming that Kosovo will continue to offer renewables incentives under a revised system, hydropower incentives should be ended so as to give other technologies a chance, and to take a precautionary approach regarding environmental damage.

Conclusions and recommendations

Kosovo has most likely met its overall 2020 renewable energy target. However, this happened more by accident than by design due to the revision of its biomass data.

The country barely made any progress towards meeting its target for renewable energy in transport, and its plans to rely heavily on small hydropower to increase its renewable energy share in the electricity sector failed to generate a significant share of electricity (2.3 per cent in 2019). Meanwhile, the hydropower plants caused serious environmental damage and widespread public dissatisfaction.

Despite revising its National Renewable Energy Action Plan in 2018, Kosovo did not manage to build as much solar, wind or small hydropower generation as originally planned, and as of 2019 had reached a share of only 5.15 percent of renewable electricity – lower than any other Energy Community country except Moldova.

The whole period between Kosovo setting its renewable energy target in 2012 up until 2020 was characterised by renewable energy being constantly sidelined by plans for the Kosova e Re coal-fired power plant. Only in the last three or four years have wind and solar started to take off.

As it embarks on target-setting and energy planning up until 2030, Kosovo can and must learn from its past experience in order to speed up its transition and make sure it is widely accepted by the public.

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[106] *Balkan Green Energy News: Kosovo is looking for investments in solar energy through auction scheme, November 28, 2017*

[107] *Balkan Green Energy News: Consultant sought to help launch renewable energy auctions in Kosovo, 16 September 2019*

[108] *Netherlands for the World Bank: eC2: Kosovo Solar Technical, Environmental and Social Consultant, 16 October 2019*

[109] *CEE Bankwatch Network, North Macedonia: Complaint challenges unfair subsidy advantages for hydropower, 1 July 2019.*

[110] *Kosovo Energy Regulatory Office, Decision V_1321_2020, 10 December 2020.*

Recommendations to the Kosovo government

- **Be on time.** Adopting targets for 2020 in 2012 and approving the first NREAP in 2013 was clearly not optimal considering that investments need several years to be implemented. Additionally, when it became clear that things were not going as planned, the NREAP needed to be revised much earlier than 2018. By that time, there was very little room for action that could have a real impact by 2020.

- **Make a political decision to pursue sustainable renewables and energy efficiency, not fossil fuels.** Kosovo could certainly have made more progress on renewable energy and energy efficiency if it had been more concentrated on this instead of single mindedly insisting on a new coal power plant. Ideas of introducing fossil gas to Kosovo could have a similar crowding out effect and detrimentally affect the development of energy efficiency and renewables.

- **Keep the target simple.** Having a binding target and an indicative renewable energy target was a good gesture of political will, but with only limited time to meet either of the targets, ultimately it complicated the situation.

- **Plan for renewable electricity, heating/cooling and transport equally.** In the period up until 2020 none of these areas was given adequate attention, but at least in the electricity sector a support scheme was set up and some limited new capacity was built. In the transport sector, almost no progress was made, while in the heating sector most of the emphasis in the NREAPs was on households using firewood, for which no special measures were foreseen. A biomass district heating project in Gjakova/ Đakovica was developed but testing started only in 2021,[111] so it was too late to make any contribution to the target.

- **Renewable does not equal sustainable.** Just because the EU allows certain technologies to count towards the renewable energy target, it does not mean that they are all automatically environmentally and socially acceptable. Kosovo has already seen this first hand with small hydropower plants, but other technologies such as forest biomass and biofuels also raise concerns, as mentioned above. Therefore, Kosovo should not just copy EU rules but should consider for each specific technology whether it is advantageous for Kosovo, and if so, under what conditions.

- **Be realistic**. Adding 177 MW of small hydropower to Kosovo's existing capacity was never going to happen and it is unclear how such a figure came to be approved. Claims about the potential of certain technologies need to be approached rigorously and with environmental and social considerations in mind.

- **Keep the planning documents simple and consistent with one another**. The NREAPs showed how much each technology was supposed to contribute to the 2020 targets but then it was the Administrative Instruction 05/2017[112] that laid out how much of each technology could receive feed-in tariffs. In addition, the Energy Regulatory Office (ERO) Rule No.10/2017 on the support scheme for renewable energy sources generators[113] laid out which size of which type of plants could receive feed-in tariffs, and again this was not aligned with what was foreseen in the NREAPs to fulfil the 2020 targets.

  However, with wind and solar prices falling, this ceased to be the case several years ago. Yet in 2017 Kosovo[114] increased the amount of hydropower that could be incentivised, rather than decreasing it. Not only do solar and wind offer environmental advantages, but hydropower is also increasingly unreliable due to climate change and fluctuating rainfall, as shown in 2017 and early 2019.

- **Energy efficiency is the first fuel.** Reducing Kosovo's high distribution network losses (nearly 13 per cent each for technical and commercial losses)[115] and insulating houses would make the need for new generation capacity more manageable.

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[111] *Gjakova Portal, Në Ngrohtoren e Qytetit fillon testimi për prodhimin e energjisë elektrike nga biomasa, 27 May 2021.*

[112] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 on Renewable Energy Source targets.*

[113] *ERO Rule No.10/2017, Rule on the support scheme for renewable energy sources generators, 27 April, 2017.*

[114] *Ministry of Economic Development, Kosovo: Administrative Instruction (Med) No.05/2017 on Renewable Energy Source targets.*

[115] *Energy Regulatory Office, Annual Report 2019, March 2020.*

- **Make use of heat pumps**. The use of biomass is likely to be increasingly restricted in the EU in coming years due to air quality, greenhouse gas emissions and damage to forests. Kosovo should not rely on it so heavily for heating and cooling and should do more to incentivise the widespread use of heat pumps.[116]

- **Electrification and improvement of public transport is the way forward.** For land use and sustainability reasons, Kosovo should not be concerned that it has not advanced in the use of biofuels. Instead, it should concentrate on improving public transport and on its electrification, using renewable energy sources.

- **Let the sunshine in.** In strategic documents such as the forthcoming National Energy and Climate Plan, pay more attention to using the considerable, yet highly under-used, potential of solar energy for electricity generation and heating.

- **Give prosumers a chance.** Although some larger renewable energy projects are starting to be developed without incentives in the Western Balkans, many projects, especially smaller ones, are still likely to require support schemes in the years to come. A transition towards an energy-efficient energy sector based on sustainable forms of renewable energy in particular requires support for households and communities to get involved in producing energy, in order to garner public acceptance of the transition and to ensure that electricity is generated as close as possible to where it is consumed.

- **End incentives for mature technologies such as hydropower.** Only technologies which are still developing and whose costs are expected to fall further need support through State aid, especially solar and wind in cases where they would not be viable without incentives.

- **Change the definition of renewable energy sources.** The Law on Energy must be in line with the EU definition

- **No incentives for burning waste.** Delete the clause in the Law on Electricity allowing producers of energy from waste to become Eligible Producers.

- **Introduce sustainability criteria.** At a minimum, include in the legislation the clauses from the EEAG and Renewable Energy Directive II that set out the environmental limitations for different sources of renewable energy such as waste, biomass and hydropower. Preferably include stricter criteria more suited to Kosovo's experience.

- **Support schemes must be environmentally and economically sustainazble.** Introduce technology-specific auctions for incentives for all solar and wind plants larger than 1 MW, in line with the EEAG.[117] Do not reintroduce feed-in tariffs for plants larger than a maximum of 500 kW.[118] Auctions should include the following features:

  - So-called secondary criteria, to ensure the environmental and social sustainability of the projects, primarily through the choice of appropriate locations for energy infrastructure. They must not be in protected areas or other sensitive areas that should be protected, e.g. under the EU Nature and Habitats Directives, and must not have negative impacts on the economic activities carried out by the local population like tourism or agriculture.

  - Eligibility criteria that ensure projects promoted by energy co-operatives or local communities are able to qualify for incentives.

  - Auctions should be so-called late auctions, after relevant permits and approvals including environmental assessments, construction permits, and grid connection approvals have been obtained and property issues have been fully resolved.

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[116] *For more heating proposals, see CEE Bankwatch Network, Heating in the Western Balkans - Overview and recommendations for clean solutions, May 2021.*

[117] *Except for wind power plants, which may have a threshold of up to 6 turbines or 6 MW, whichever is higher.*

[118] *According to the EEAG, wind turbines may receive feed-in tariffs up to a threshold of 3 turbines or 3 MW, whichever is higher.*

• **Introduce a tax or emissions trading scheme for CO2 emissions.**[119] The income to the State budget from such a system can be used to incentivise energy efficiency in households and the development of sustainable forms of renewable energy.

• **Stop existing incentives for non-compliant projects.** Examine ongoing hydropower projects and ensure that those not fulfilling the criteria for incentives are no longer awarded feed-in tariffs.

• **Open Kosovo's electricity market as soon as possible to make use of regional synergies.** Linking up with Albania, for example, will make it much easier for Kosovo to integrate larger amounts of variable renewables into the grid.

Recommendations for the European Commission

• **Help Kosovo equate renewable with sustainable.** Step up assistance to Kosovo to update its renewable energy legislation, including sustainability criteria and provisions on prosumers. Ensure that renewable energy plants that are not in line with EU Directives are ineligible for incentives.[120] Assist Kosovo to take the above considerations into account in its NECP and incentives planning.

• **Redress the imbalance.** Ensure that any new support mechanism implemented in Kosovo counterbalances the disproportionate support given to hydropower so far compared to that given to solar and wind.

• **Show that state aid matters.** Step up efforts to enforce the State aid provisions of Kosovo's Stabilisation and Association Agreement and support enhanced State aid provisions in the Energy Community. This should include notification of proposed aid to the Secretariat and financial penalties for breaches of Energy Community rules.

• **Back carbon pricing.** Encourage Kosovo to introduce a tax on CO2 in order to help level the playing field for renewable energy generation and energy efficiency.

• **Recommend successful strategies/policies** and link Kosovo with others who are doing well. As an organization which monitors other countries' progress on energy issues and has members who have been highly successful regulating energy production in their country, cooperate with Kosovo policy makers and bring expertise and suggestions that would guide policymakers towards a more sustainable path, while taking into account Kosovo's abilities and circumstances.

• **Tailor advice towards Kosovo's reality** and prioritise requests towards the country according to its needs and to what would bring the best results in terms of ensuring a sustainable energy transition.

Recommendations for the European Commission

• When carrying out policy assistance for Kosovo on renewable energy auctions, ensure that environmental acceptability is built into the project selection process.

• Hydropower incentives need to be cut altogether, given the lack of sustainable potential in Kosovo and high levels of non-compliance with environmental legislation across the region.

[119] *The scope would be subject to further discussion, but it should at least cover the main high-emitting industries.*

[120] *Both the EEAG and RED II restrict incentives for waste-to-energy plants in circumstances where they are in conflict with circular economy goals. This would be the case for any waste-to-energy plant in Kosovo using municipal waste given the lack of recycling in the country.*

Recommendations for the European Commission

- Actively engage in communication with the Ministry of Economy and the Ministry for Environment, Spatial Planning and Infrastructure to enable better quality and more transparent energy planning and a swift move to an environmentally and economically sustainable renewable energy support system.

- Follow and present global trends regarding renewable energy, climate change and environmental protection to the Kosovo public. Reach out to colleagues abroad to ensure an updated and critical look at new developments in the energy sector in order to understand the advantages and pitfalls of different solutions, including bioenergy, hydrogen, and synthetic fuels. Raise the alarm when the authorities are banking on false solutions.

- Hold the authorities to account for improper permitting in energy projects. For example if environmental permits are required for hydropower or other energy-related plants, but have expired or not been secured, civil society needs to make sure that enforcement action is taken and that the ERO cuts feed-in tariffs for non-compliant plants already built.

- Organize engaging activities that spread awareness about the importance of renewable energy sources and energy efficiency to the public, as well as how they can make their own investments and access funds. This will inform and encourage people to participate and push for changes towards the institutions responsible - a bottom-up approach that provides long-term results.

- Keep reminding the government that they need to do more and keep the conversation going. We need to talk more about renewable energy in Kosovo – continue to be more vocal in order to keep this conversation alive.

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