CEE bankwatch network

Briefing paper

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Western Balkans countries invest at least 2.4 times as much in coal as in wind power

Image: Roland Peschitz - flic.kr/p/HqXTu

All the Western Balkans countries[1] have committed to increase their share of renewable energy by 2020 to reach between 25 and 40 percent of their energy mix, as part of their obligations under the Energy Community Treaty[2]. Yet this is far from obvious when examining their investment plans for new power generation capacity. Western Balkans governments are actively planning to build 2800 MW of new coal plants.[3] The construction cost of these plants alone would be at least EUR 4.5 billion,[i] even without taking into account the costs for expanding the coal mines and ash dumps, financing costs and in some cases also resettlement[ii]. In contrast, these countries are only planning to build around 1166 MW of wind power plants, at an estimated cost of EUR 1.89 billion.[4]

As well as conflicting with the Paris Agreement's aim of limiting average global temperature increase to 1.5ºC,[iii] the Balkan coal plans contrast sharply with the situation in the EU, where most countries are giving up building new coal plants and seven EU states are already coal-free[iv]. Wind power accounted for the largest amount of new installed power capacity in the EU in 2015 (12.8 GW), making a total of 142 GW installed capacity. Wind power is now capable of generating 315 TWh and covering 11.4% of the EU electricity consumption in a normal wind year.[v]

1 Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia.

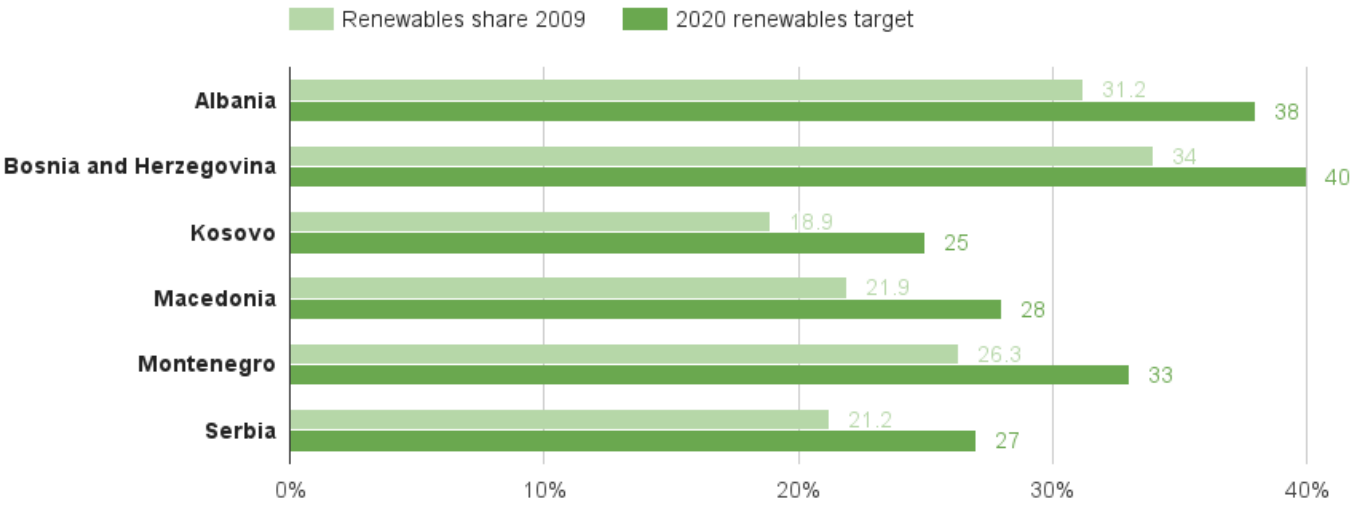
2 The Energy Community brings together Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Moldova, Montenegro, Serbia and Ukraine with the goal of creating a common energy market between the EU and some of its neighbours. The Energy Community Treaty, among other things, includes binding obligations for member countries to implement certain pieces of EU environmental law and renewable energy targets.

3 This includes only plans which are being actively pursued and for which construction could start within the next few years. If projects are included which are mentioned from time to time in the media or government documents but do not appear to be advancing, the planned coal capacity rises to at least 5700 MW.

4 The coal plants would generate approximately 18 100 GWh while the wind plants would generate around 3230 GWh, thus coal would continue to crowd out other sources of energy in all countries except Albania. Included in the calculation for wind are projects which we believe could go ahead before 2020. Some plants have not shown any obvious development for several years, particularly in Albania, while others are held back by feed-in tariff quotas or other administrative issues. In Serbia plants not included in the 500 MW quota until 2020 have not been included and a similar approach has been taken for Kosovo's 150 MW cap. In Bosnia and Herzegovina it is not clear which plants will finally fit into the 350 MW quota until 2019 but an estimate has been made based on the level of development of the projects, permitting, and financing.

Of course wind is not the only renewable energy resource. All Western Balkans countries have large solar potential[vi]. However wind is taken as an example here as there is even less investment in solar than in wind across the region and investments are disbursed and harder to track. Hydropower is already widely used across the region and hundreds or even thousands of new plants are being planned[vii], many of them in protected areas. As hydropower is a mature technology, investment levels say little about the rate at which countries are adjusting their energy sectors. It also will not add much to the stability of energy supply in countries which are already over-dependent on hydropower, notably Albania but also Montenegro and Croatia, as the region is highly vulnerable to climate change. Biomass can make a useful contribution provided it is locally and sustainably sourced, as can biogas, however neither are likely to make up a large percentage of electricity generated in the coming years, unlike wind, solar and existing hydropower, coupled with high levels of investment in energy efficiency.

Energy Community 2020 renewable energy targets



However, in spite of regional governments' stubborn pursuit of coal, it would be wrong to assume that coal is necessarily destined to end up as the winner. The last few years have already seen plans for new coal plants cut back, such as Kolubara B in Serbia, and the plans which are still in the pipeline are suffering from serious problems:

- All seven actively planned coal plants (not including Stanari in Bosnia and Herzegovina, which is undergoing test operations) are seriously delayed.
- Of these, only Kostolac B3 in Serbia has a financing contract signed – with China Exim Bank.
- Four of the seven actively planned plants do not have valid environmental permits. In the case of Pljevlja II (Montenegro) and Kosova e Re (Kosovo) this is because the environmental impact assessment processes have not been completed yet.
- In the cases of Tuzla 7 and Kostolac B3, the project preparations have taken so long that the EIA decisions are no longer valid.

- The environmental permits for Stanari, Banovići, Ugljevik III and Kostolac B3[viii] are subject to court challenges by NGOs.

This situation opens up space for a change of direction, if only decision-makers will grasp it. Energy efficiency improvements, solar and wind projects can all be delivered more quickly than new coal power plants, and in the long-run are likely to turn out better value for money. Costs of wind and solar are falling fast[ix], while higher environmental standards mean that new coal power plants are finally starting to pay their real costs. On joining the EU, Western Balkans countries will have to start paying for CO_2, which will further erode the economics of coal, just as it has happened in the EU. It is not clear that this has been clearly understood by decision-makers in the region, who are often prone to set up a false choice between using coal or importing energy. If governments are really dedicated to using domestic resources, then they can show it by stepping up their efforts to save energy and increase the use of sun and wind power.

Coal investments across the region

Stanari, 300 MW, Republika Srpska, Bosnia and Herzegovina

The China Development Bank (CDB)-financed plant promoted by Energy Financing Team (EFT) and built by Dongfang is currently in the testing phase. It is expected to be put into operation later this year. The plant's net thermal efficiency is expected to be very low, at 34.1%, due to the use of a dry cooling system.

A legal challenge is ongoing in the domestic courts questioning the decision not to repeat the environmental impact assessment procedure to ensure compliance with new legislation. It is also under examination by the Espoo Convention Implementation Committee due to Bosnia and Herzegovina's failure to inform neighbouring Croatia about the project's potential environmental impacts.

Ugljevik III, 2x300 MW, Republika Srpska, Bosnia and Herzegovina

In October 2014 just before elections there was a flurry of activity around this project promoted by Comsar Energy, owned by Russian billionaire Rashid Sardarov. A partial construction permit was issued and the project was declared to be "of public interest" by the Republika Srpska parliament. In January 2016 the Republika Srpska government approved a controversial annex to the concession agreement, stating that it would delay the implementation of EU environmental law for as long as possible, but recently it has been reported that these may be revised again.

Like Stanari, Ugljevik III would have a very low net efficiency of 34.1 percent. An analysis published by Center for Environment shows that the environmental impact assessment is missing key information and that the data on likely emissions of SO2, NOx and dust are false. This issue is currently being examined by the Energy Community Secretariat.

Ugljevik III is also currently under examination by the Espoo Convention due to Bosnia and Herzegovina's failure to notify neighbouring countries about the plant's transboundary impacts.

China Power Engineering and Consulting Group Corporation (CPECC) is supposed to be building the project and CDB representatives were present at the signing of an agreement between CPECC and the Republika Srpska authorities but have never publicly expressed interest in the project.

Banovići, 350 MW, Federation of BiH, Bosnia and Herzegovina

RMU Banovići, a primarily state-owned company, is planning to construct a coal plant alongside the Banovići mine near Tuzla. In November 2015 an EPC (engineering, procurement, construction) contract was signed with China's Dongfang. An environmental permit was issued on 11 January 2016 and is currently being challenged in court by NGO Ekotim.

There is a serious lack of co-ordination between Tuzla 7 and Banovići. It is unlikely that two plants within just a few kilometres can both be feasible, yet the FBiH government has so far pushed both.

Another issue of concern with Banovići is water use. A new reservoir for cooling water is planned at Ramići, however during drier periods filling the reservoir may be in competition with filling Lake Modrac, which is used for drinking water for Tuzla and for cooling the Tuzla power plant. As these weaknesses were not adequately addressed in the environmental permit for the reservoir, it is now being challenged in court by Ekotim.

Tuzla 7, 450 MW, Federation of BiH, Bosnia and Herzegovina

In August 2014, Elektroprivreda Bosne and Hercegovine (EPBiH) signed an EPC contract with China Gezhouba Group and Guangdong Electric Power Design for the construction of a new unit at Tuzla. The price tag was EUR 785.7 million, but it was later admitted that this was not economically feasible and on 4 May 2016 an annex to the EPC contract was signed for EUR 722 million.

Bosnia and Herzegovina has apparently managed to persuade China to provide a loan in EUR rather than USD in order to mitigate exchange rate risks[x], but negotiations are still ongoing about whether the period for paying off the loan can be extended to 15 years instead of 10.

Tuzla 7 is currently in the process of obtaining an updated environmental permit as the original one expired in November 2015. Local people from Šićki Brod are resisting the construction of the ash landfill for the new plant. In early April this year they delivered a petition with 2100 signatures against the proposal to the Ministry of Environment and Tourism.

Kosova e Re, 500 MW, Kosovo

In November 2015 the one and only bidder for the 2x300 MW Kosova e Re, US ContourGlobal, was chosen as preferred bidder. It was also announced that the plan had been changed to one unit of 500 MW. So far no contract has been signed for the project and no environmental impact assessment study has been presented for public consultation.

World Bank sources have also expressed their concern that a project of one unit instead of two would leave Kosovo too exposed in case of outages and it is not clear whether the bank could support the project in its current form.

Pljevlja II, 254 MW, Montenegro

Czech Skoda Praha has been chosen as preferred bidder but no contract has been signed with Elektroprivreda Crne Gore (EPCG) yet due to disagreement about the planned finance structure. Major EPCG shareholder A2A is not in favour of the Pljevlja II project and is seeking to insulate itself from the project risks, while potential financier the Czech Export Bank wants an EPCG guarantee for its proposed loan.

Another complicating element is that the Montenegrin government did not carry out a proper tender procedure but instead invited companies from selected countries to submit offers for the construction of the plant. In order to make this process compliant with Montenegrin law, the Montenegrin government will need to sign a bi-lateral agreement with the government of the chosen company – the Czech Republic. This agreement needs to be cleared by the European Commission, which at the time of writing has not been done due to the EC still waiting for additional information from the Montenegrin government.

Numerous other problems plague the project, including insufficient economic coal reserves. Project permitting is at an early stage, with the environmental impact assessment process still not carried out.

Kostolac B3, 350 MW, Serbia

In November 2013 a deal was signed with China's National Machinery and Equipment Import and Export Corp (CMEC) to construct the new Kostolac B3 lignite plant in north-east Serbia. No tender procedure appears to have taken place, but the Chinese and Serbian governments signed an intergovernmental agreement freeing joint projects from tender obligations[xi] – a move which would not be allowed under EU law.

A contract for a USD 608 million loan was signed with China ExIm Bank in December 2014. The Serbian government took the loan on behalf of state company EPS, raising issues of compliance with its state aid obligations under the Energy Community Treaty.

Several other problems also surround the project. The Drmno mine expansion does not yet have an EIA study or environmental permit and the EIA decision for the power plant is being challenged in the national administrative court. In the meantime the EIA decision has become invalid and no new EIA process has been announced. The case is also being considered by the Espoo Convention Implementation Committee for failure to assess the transboundary environmental effects of the plant and mine, as well as those of the Serbian Energy Strategy and Spatial Plan.

Wind investments across the region

Wind investments can in general be carried out much more quickly than coal power plants, however this has not been the case in the Western Balkans so far. Bogdanci I (36.8 MW) in Macedonia and Kula (9.9 MW) in Serbia are the only significant wind generators in commercial operation to date. The reasons for this are varied and range from illogical permitting procedures and undeveloped legislation to lack of political will to move the projects forward. Finance for the projects does not appear to be lacking, with the EBRD, IFC and KfW showing willingness to support several projects such as Krnovo in Montenegro, Mesihovina and Podveležje in Bosnia and Herzegovina and Ćibuk and Alibunar (Electrawinds) in Serbia.[xii]

There is no lack of investors and more and more wind farm projects are being developed, especially in Bosnia and Herzegovina and Serbia. However, even as the legislative framework is improving, projects are held back by restrictive grid connection quotas. In addition to the 1166 MW of wind projects which we consider stand a serious chance of being realised in the next few years, we have identified at least 2587 MW of additional projects whose status is either unclear or are likely to be seriously delayed due to grid connection quotas. In the following section we give a quick country-by-country overview of wind developments.

Albania

Albania remains completely dependent on hydropower for electricity production. Its National Renewable Energy Action Plan (NREAP) lists more than 1300 MW of plants which have received licenses, including a controversial 500 MW plant on the pristine Karaburun peninsula near Vlore, however none of these have moved forward for at least five years. Recently the government issued a construction permit for a new proposal, the 36 MW Kurbin plant near Lezhe, but it remains to be seen whether this plant will fare any better than its predecessors. Albania's NREAP also states that the system capacity to transmit and absorb wind energy is estimated to approximately 180-200 MW which would significantly limit development.

Bosnia and Herzegovina

Bosnia and Herzegovina has been on the edge of constructing its first commercial wind farm for several years, but it still hasn't quite got there. In 2010 Elektroprivreda HZHB got as far as laying the foundation stone for 55 MW Mesihovina, but no significant works have been carried out since then, although the plant has financing approved from KfW.

Trying to assess which wind investments are likely to go forward is not easy. In recent years Bosnia and Herzegovina has limited grid access to 350 MW for wind - 230 MW for the Federation of BiH and 120 MW for Republika Srpska. Mesihovina (55 MW), Podveležje (48 MW) and Hrgud (48 MW) have been approved, but it is unclear which other plants will be included. Following transmission operator NOSBIH's Indicative Plan of Generation Development 2016-2025, we assume that in addition to the above, Trusina (51 MW), Debelo Brdo (54 MW), Jelovača (36 MW), and Orlovača (42 MW) will move forward under the 350 MW limit.

Kosovo

Kosovo appeared to be an early mover, installing a 3 x 0.45 MW wind plant at Golesh near Pristina in 2009. However the subsequent wrangling over the feed-in tariff had a dampening effect on new wind power developments. Several proposals are currently on the table and so far four plants have been approved to receive feed-in tariffs. Feed-in tariffs have been limited to a quota of 150 MW of wind power installed by 2020 and only plants of less than 35 MW are eligible[xiii]. Most of this capacity has already been taken up by Kitka (32.5 MW), Zatriq (30 MW), Budakova (30 MW) and Bajgora (34.25 MW). It is not clear whether any of these plants have financing in place yet.

Macedonia

The 36.8 MW Bogdanci phase I plant entered operation in 2015. An additional 13.8 MW capacity is planned at Bogdanci in phase II, and despite a KfW loan envisaged for its development, Macedonia's political crisis has put plans on hold for now. At the moment the country has a quota for receiving feed-in tariffs of 100 MW by end 2020 and 150 MW by end 2025. It remains to be seen whether this will be a significant barrier for investors or whether other political or economic factors will be more influential.

Montenegro

The Krnovo (72 MW) wind farm near Nikšić is under construction[xiv] and has been financed by the EBRD and KfW.[xv] Montenegro's second wind farm, Možura (46 MW), is advancing and is expected to be completed by the end of 2017. Montenegro's official plans foresee 150 MW of wind capacity being installed by 2020, however Možura and Krnovo seem to be the only projects that will be installed by then.

Serbia

Serbia has attracted numerous potential investors in wind, especially in its flat northern Vojvodina region, but they have had to be patient while the legal framework has been created. Only one wind farm, Kula, has started operating - in late 2015. The government has also limited feed-in tariff payments to 500 MW capacity until 2020[xvi], a quota which is already filled by the following plants[xvii]:

Kula (9.9 MW)	Plandište (102 MW)
La Piccolina (6.6 MW)	Kovačica (104.5 MW)
Alibunar (Electrawinds)(42 MW)	Ćibuk 1 (158 MW)
Malibunar (8 MW)	Kosava (128.7 MW)

This will most likely cause significant delays for other planned projects in Serbia.

Endnotes

i Stanari: http://www.eft-stanari.net/en/news/en/loan-agreement-for-the-stanari-mine-signed-today.html, http://www.eft-stanari.net/en/news/en/EFT-completes-financial-close-for-the-Stanari-TPP-project.html,
Kostolac B3: http://www.eps.rs/Eng/Article.aspx?lista=novosti&id=39,
Tuzla 7: http://www.klix.ba/biznis/investicije/bajazit-jasarevic-direktor-elektroprivrede-bih-pripremni-radovi-na-izgradnji-bloka-7-moguci-u-2017/160427008,
Banovići: http://rmub.ba/odrzan-sastanak-na-temu-projekta-izgradnje-termolektrane-u-banovicima/
Ugljevik III: http://comsar.com/sites/default/files/pressreleases/press-release-01.02.2013-v1.pdf
Pljevlja II: http://www.epcg.com/en/media-center/press-releases/intensified-negotiations-between-epcg-and-skoda-praha
Kosova e Re: http://mzhe-ks.net/en/news/agreement-for-tpp-kosova-e-re-the-greatest-success-of-2015-#.VydwgJ4vCb8
Kakanj 8: http://www.new.sarajevobusinessforum.com/sites/default/files/2016-04/E-204%20PresentationTE%20Kakanj%20bl%208.pdf

ii The cost of mine expansion is not available in all cases but for Kreka mine near Tuzla the figure has been put at around EUR 100 million https://predstavnickidom-pfbih.gov.ba/upload/file/sjednice/31_sjednica/28.pdf. Health costs and other external costs should also be taken into consideration, and have recently been estimated by the Health and Environment Alliance (HEAL) to reach up to EUR 528 million per year for new plants in the Balkans http://env-health.org/IMG/pdf/technical_report_balkans_coal_en_lr.pdf, albeit with a greater number of new plants foreseen than we have included here.

iii A 2015 paper by Christophe McGlade and Paul Ekins calculated that over 80% of coal reserves would have to stay in the ground in order to limit climate change to 2 degrees celsius. http://www.nature.com/nature/journal/v517/n7533/full/nature14016.html This means the percentage would be even larger to limit it to 1.5 degrees.

iv Cyprus, Luxemburg, Malta, Lithuania, Latvia, Estonia and Belgium. Scotland has also recently closed its last coal-fired power plant for good and others are following suit. The UK and Austria announced that they will quit coal by 2025 – and have already started to reduce their coal capacity – while Portugal aims to be coal free by 2020. http://www.greenpeace.org/eu-unit/en/blog/belgium-kicks-the-coal-habit/blog/56044/ The Netherlands also has to produce a coal phase-out plan by the end of this year, following a ruling by the Hague District Court in June 2015 that the country must to more to reduce emissions, which was followed by a resolution by the DutchParliament in late 2015. http://news.vattenfall.com/en/article/coal-be-phased-out-netherlands

v Wind Europe 2015 statistics: https://windeurope.org/about-wind/statistics/european/wind-power-2015-european-statistics/

vi South East Europe 2050 Carbon Calculator: https://www.see2050carboncalculator.net/

vii A recent Bankwatch study has identified 994 planned plants individually, http://bankwatch.org/sites/default/files/SEE-hydropower-financing.pdf but this is not a complete list. Riverwatch puts the figure much higher at around 2700 planned plants http://www.balkanrivers.net/sites/default/files/Hydropower%20dams%20in%20the%20Balkan230915_FINAL_EdUS.pdf

viii The Kostolac B3 court challenge was started before the permit's validity expired and has not yet been concluded.

ix IRENA: http://costing.irena.org/technology-costs/power-generation/wind.aspx, http://costing.irena.org/technology-costs/power-generation/solar-photovoltaics.aspx

x The BiH Convertible Mark is pegged to the EUR.

xi On 20 August 2009 the Serbian government signed a Memorandum of Understanding with the Chinese government on economic and technical co-operation in the field of infrastructure. Annex 2 to the 2009 agreement was signed on 26 August 2013. This annex includes a clause in Article 5 that (our translation): Agreements, contracts, programmes and projects carried out in accordance with Article 4 of the Agreement on the territory of the Republic of Serbia do not carry an obligation to publish a public tender for carrying out investment works and delivery of goods and services, except if it is otherwise specified in the commercial contract from paragraph 4 of this Article."

xii http://www.ebrd.com/work-with-us/projects/psd/krnovo-wind-farm.html, http://www.mft.gov.ba/hrv/index.php?option=com_content&view=article&id=449:potpisani-sporazumi-s-kfw-om-za-projekt-qvjetroelektrana-mesihovinaq&catid=34&Itemid=162, http://www.elektroprivreda.ba/novost/13406/kfw-approved-65-million-euros-loan-to-elektroprivreda-bih-for-financing-construction-of-the-wind-farm-podvelezje, http://ifcext.ifc.org/ifcext/spiwebsite1.nsf/78e3b305216fcdba85257a8b0075079d/ad271ed8cf45144f85257b5700657ec5?opendocument, http://www.ebrd.com/work-with-us/projects/psd/dolovo-cibuk-i-wind-farm.html

xiii http://www.ero-ks.org/2016/Tarifat/RAPORT_per_FIT_te_eres_dhe_hidrocentraleve_te_vogla_eng.pdf, http://ero-ks.org/Vendimet/English/2014/V_673_2014_eng.pdf

xiv http://www.bankar.me/2016/04/28/stigle-vjetrenjace-za-projekat-krnovo/, http://ivicom-consulting.com/web/?p=77

xv http://www.ebrd.com/work-with-us/projects/psd/krnovo-wind-farm.html, https://www.kfw.de/nachhaltigkeit/News/News-Details_289728.html

xvi http://mre.gov.rs/latinica/energetska-efikasnost-obnovljivi-izvori-procedure.php, https://www.energy-community.org/portal/page/portal/ENC_HOME/DOCS/2144185/0633975AD1CE7B9CE053C92FA8C06338.PDF

xvii The total is more than 500 MW. Balkan Green Energy reports that only 22 MW of Košava was accepted. http://balkangreenenergynews.com/serbia-reaches-500-mw-quota-for-wind-power/