

Western Balkans: 'cheap' lignite plants built now will cost heavily later

- According to the EC-backed <u>Energy Community</u>¹'s Regional Energy Strategy, by 2020 the Western Balkans and Moldova will spend EUR 28.8 billion on new electricity generation capacity.
- **Nearly 45%** of the new Western Balkan capacity (6195 MW of a total new 14 234 MW) is planned to run **on coal or lignite**. Per capita that is more than is planned by Poland, a country notorious in the EU for its reliance on coal and unwillingness to take action on climate change.
- Yet the Western Balkans countries all plan on joining the EU. Being locked in to lignite infrastructure will cause **enormous costs** for implementing the EU's **2050 decarbonisation goals**.
- In addition, through the Energy Community, all of the Western Balkans countries have committed themselves to ensure that by 2018 all new power plants will be in line with EU legislation, namely the Industrial Emissions Directive. Considering how long it takes to build a power plant, this means that any plant built now needs to comply already.
- However several new plants planned in Bosnia and Herzegovina, Montenegro and Serbia look unlikely to be in compliance, threatening to add massive extra costs for retrofits in a few years' time.

New planned lignite plants in the Western Balkans

Climate science is indicating that we are on track for 4°C global warming over this century and world leaders and international institutions <u>are warning</u> against the 'carbon lock-in' that will be caused by constructing more fossil fuel infrastructure today.

Despite this, Western Balkan governments plan **6195 MW** of new coal/lignite plants by 2020.²

These countries are aspiring to become members of the European Union. Yet the energy infrastructure they build today will still be operating by 2050, therefore constituting a serious threat to these countries' ability to comply with <u>EU long-term decarbonisation</u> <u>objectives</u>.

Similar problems have already arisen in



Slovenia, where both the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB - the EU house bank, created to further EU objectives) financed the highly controversial 600 MW <u>Sostanj 6 lignite power plant</u>. The new plant will take up almost all of Slovenia's emissions allocation if it reduces greenhouse gas emissions in line with EU 2050 targets. The economic viability of the project <u>has</u> been questioned by Slovene ministers and several expert studies. The project has also been <u>marred with</u> corruption allegations and the Slovene authorities, <u>the European Anti-Fraud Office</u> (OLAF) and the EBRD and EIB have undertaken investigations, some of which are still ongoing.

Despite the controversy, the EBRD and EIB both loaned EUR 100 million and EUR 550 million respectively and disbursed the money in early 2013, six years after the EIB approved the first part of its loan for the project. Since then the project has lurched from one crisis to another, as it emerged that the conditions set in the state guarantee, such as keeping the price below EUR 1.3 billion, would not be able to be kept (the latest estimate is EUR 1.44 billion), and that the plant is likely to run at a loss. The Western Balkan countries need to learn from this mistake, and fast.

¹ The Energy Community Treaty, signed in 2005 between the EU, the Western Balkan countries, Ukraine and Moldova, commits the Parties to implement selected EU legislation related to energy and environment, to develop an adequate regulatory framework and to liberalise their energy markets. The Energy Community also promotes investment in energy infrastructure in the region.

² According to the EC-backed Energy Community Regional Energy Strategy, approved in October 2012

New lignite power plants in the Western Balkans

1. New Kosovo (Kosova e Re)/Kosovo C power plant, Kosovo: The plan to build a new coal plant close to the capital Prishtina has been around for over a decade, starting out as a planned 2000 MW unit that would turn Kosovo into an energy exporter. Yet lack of investors has gradually diminished ambitions. Today, Kosovo C is planned to have a capacity of 600 MW and has been <u>heavily promoted</u> by the US government, notably through the World Bank, which is interested in supporting the project. After Kosovo became a member of the EBRD in December 2012, the bank also <u>declared its interest</u> in financing the new plant in its first Kosovo Country Strategy.

While the plant is being depicted as necessary to ensure the country's energy security, up to 30 percent of available electricity in Kosovo today is wasted according to official data, because of lack of energy efficiency programmes in place. This adds to the 37 percent of electricity losses (of which around 17 percent are technical and a result of an old grid and the other are commercial losses, i.e. theft). Daniel Kammen, Professor at the University of California in Berkeley, has shown that Kosovo has renewable energy capacities that could deliver 34 percent of energy demand by 2025, while at the same time providing more jobs than coal.

Today, Kosovo produces 98 percent of its electricity from lignite. <u>Recent research</u> shows that, largely because of this over-reliance on coal and other fossil fuels, air pollution in Kosovo is responsible for 22,900 children with pulmonary diseases and 100,000,000 euros in medical expenses annually.

In September 2014 the tender deadline for a strategic investor for Kosovo C was extended for three months, raising speculation about whether there is still serious interest from investors.

2. Kolubara B thermal power plant, Serbia: A new <u>750 MW coal plant</u> is planned to be built at Kolubara, in western Serbia, in order to exploit the resources in the <u>Kolubara coal basin</u>. Construction at the site was started in the 1980s but later abandoned, and the 2012 EIA³ suggests that even the new plans will not meet the Industrial Emissions Directive standards.

The Kolubara basin has been exploited for decades but significant resources remain. In 2011, the EBRD approved a loan of EUR 80 million to state-owned energy company <u>EPS</u> (a long-term business partner of the EBRD in Serbia) and owner of Kolubara, for so-called <u>"efficiency improvements"</u> at the mine. In reality, though, the loan was to assist EPS in expanding its mining operations. While the EBRD claimed that an estimated 200,000 tonnes of CO2 emissions will be saved through efficiency improvements, the burning of lignite from the EBRD-financed portion of the mine would result in an estimated 500,000,000 tonnes of CO2, making a mockery of the savings claim.

In April 2012, the EBRD also announced its interest in providing a <u>400 million euros loan</u> for the new 750 MW Kolubara B coal plant to be built at the site by EPS and Italy's Edison, however in September 2013 the bank confirmed it was no longer looking at the project. Meetings with Edison have also confirmed that the project is proceeding slowly and it is now unclear who will finance the project.

All the while, the Kolubara management has been haunted by allegations of corruption and mis-management: in late 2011, 16 employees of EPS were arrested on suspicion of corruption offences involving, among other things, the fictitious hiring of mining equipment over several years (the trials have not yet taken place). In January 2013, the Serbian Energy Minister announced a thorough investigation of management practices at Kolubara, which she called <u>"mired in crime and corruption"</u>. In September 2013 this led to <u>the arrest of several</u> <u>more former EPS staff</u> accused of fraud during expropriation procedures for mine expansion.

In May 2014 serious floods in Serbia resulted in the flooding of the largest mine in the Kolubara basin, Tamnava West, and it is estimated that it will take several months to pump out the water. Meanwhile Serbia is facing lignite shortages to run its power stations.

3. Kostolac B3 thermal power plant, Serbia

The Serbian government is planning a new 350 MW lignite plant at Kostolac in north-east Serbia. The China National Machinery and Equipment Import and Export Corp (CMEC) looks set to implement the project with

³ This Environmental Impact Assessment is now out of date due to legal provisions stating that the decision on the EIA is no longer valid after two years if further permits have not been obtained.

the support of the China ExIm Bank. No tender procedure has taken place, but the government plans to get round this by signing an intergovernmental agreement with the Chinese government.

4. Stanari lignite power plant, Bosnia and Herzegovina

This 300 MW plant promoted by Energy Financing Team (EFT) is being built by Dongfang Electric Corporation and financed by the China Development Bank. Construction of the plant started in May 2013. The air pollution from the plant are allowed – according to the environmental permit - to be 2-10 times higher than allowed by the Industrial Emissions Directive, and 2-3 times as high as allowed by the Large Combustion Plants Directive, the latter of which is already obligatory under the Energy Community Treaty. A complaint to the Energy Community dispute settlement mechanism was therefore submitted by environmental group Center for Environment from Banja Luka in January 2014, which also pointed to deficiencies in the environmental impact assessment process.

5. Ugljevik III lignite power plant, Republika Srpska, Bosnia and Herzegovina

Ugljevik III, promoted by Russian billionaire Rashid Sardarov's Comsar Energy and constructed by the China Power Engineering and Consulting Group Corporation (CPECC) is planned to consist of 2x300 MW units and to take lignite from the open cast mines at Delići, Peljave-Tobut, Baljak and part of Ugljevik-Istok. China Development Bank representatives were present at the signing of an <u>agreement between CPECC and the Republika Srpska authorities</u>. Like Stanari, the plant will have an extremely low net efficiency of 34.1 percent, compared to 40 percent as the best available standard⁴. Its Environmental Permit is being challenged in the Republika Srpska courts, and analysis published in October 2014 shows that the environmental impact assessment is missing key information and that the data on likely emissions of SO2, NOx and dust are false.⁵

6. Tuzla 7, Federation of BiH, Bosnia and Herzegovina

The Federation of Bosnia and Herzegovina is currently selecting a bidder for a new 450 MW unit at Tuzla. The only consortium still interested is China Gezhouba Group/Guangdong Electric Power Design, after Japan's Hitachi, which was also shortlisted, dropped out of the project.

In November 2013, the Center for Ecology and Energy from Tuzla launched <u>a report on the health impacts</u> of existing and planned coal thermal power plants in the Tuzla area. Using the methods developed in the WHO's Health Response to Air Pollutants in Europe project, the study found that in 2013 in Tuzla existing power plants will have caused the loss of 4900 years of life, 131,000 lost working days and more than 170 hospitalisations due to cardiac and respiratory diseases. Although the new plants in Tuzla and Banovici (see below) are expected to have lower emissions, they will still extend the period of pollution. Thus in the period 2015-2030 it is expected that total health-related economic costs will be EUR 810 million and that 39,000 life-years will be lost.

<u>Tuzla 7's economics are also questionable</u>. Information on Gezhouba's bid published in July 2014 shows that two different offers have been made, with different financing methods - one costing EUR 785.7 million, and one costing EUR 835 million. The latter is considered by Elektroprivreda Bosna and Hercegovine, the public power company driving the project, to be economically unfeasible, while the former is supposed to be acceptable. However there is only EUR 50 million difference between these two offers, and it is quite possible that the cost of the project will rise by at least this much as it develops, pushing it into unfeasibility.

7. Banovici lignite power plant, Federation of BiH, Bosnia and Herzegovina

The 300 MW Banovici plant is planned alongside the Banovici mine near Tuzla. The project promoter is <u>RMU</u>. <u>Banovici</u> (Banovici Brown Coal Mines), but it is still unclear who the strategic partner will be. On 01.11.2012 the Bosnian Federal Minister of Environment and Tourism issued an environmental permit for a 300 MW which included no limits for air pollution emissions.

8. Pljevlja II lignite power plant, Montenegro

Pljevlja II is expected to have a capacity of around 220 MW and to be constructed at the same site as the existing 210 MW Pljevlja lignite power plant. The Montenegro government is not conducting a standard tender

⁴ From the EU's Best Available Techniques Reference Document

⁵ The analysis will be published on 06.10.2014

procedure, but instead plans to close a deal on the basis of an intergovernmental agreement with the government of the selected company. In early 2014 CMEC, Hubei and Skoda's offers were taken forward into another round of negotiations. As of early October no final selection has been made.

Pljevlja is already suffering from serious pollution due to the existing plant, and it appears that the government wishes to run both plants in parallel for several years after the commissioning of the new plant, which will make the problem even worse. It is unclear whether the new plant is even needed with the demise of the Podgorica aluminium factory, KAP, which has reduced the country's need for electricity significantly.

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