



## China-SEE energy projects update

June 2017

### Summary

- **Bosnia and Herzegovina, Serbia, Montenegro, Macedonia, Kosovo and Romania all plan new lignite power plants during the next few years.** In contrast, most EU countries are giving up building new coal plants and seven EU states are already coal-free.<sup>1</sup> The Balkan coal plans starkly conflict with the Paris Agreement's aim of limiting climate change to 1.5 degrees celsius.<sup>2</sup>
- Since the European Investment Bank, the European Bank for Reconstruction and Development and the World Bank have virtually halted lending for new coal power plants<sup>3</sup>, **most of them are due to be financed by Chinese banks – ExIm Bank, the China Development Bank (CDB), the Industrial and Commercial Bank of China (ICBC) and the Bank of China.**
- Except Stanari in BiH, which started commercial operations in September 2016, **all the plans are seriously delayed.**
- The **two financing deals signed so far** by Chinese banks for lignite power plants in the region are for Stanari (China Development Bank, June 2012) and Kostolac B3 (China ExIm Bank, December 2014).

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<sup>1</sup> 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/>

<sup>2</sup> 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.

<sup>3</sup> With the probable exception of the planned Kosova e Re plant in Kosovo, for which the World Bank has so far not recognised the existence of viable alternatives, a stance which has been heavily challenged by civil society groups.

## Chinese-financed and potentially Chinese-financed coal power plants

### 1. Kostolac B3 thermal power plant, 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 took place, but the Chinese and Serbian governments signed an intergovernmental agreement freeing joint projects from tender obligations<sup>4</sup> – 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. It was ratified by the Serbian parliament in early 2015 in an extraordinary session announced to the public less than 24 hours in advance. The contract contains several problematic provisions, eg. any arbitration will take place in Beijing.

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 plague the project. The environmental impact assessment process had to be repeated after the original approval expired and the Espoo Convention Implementation Committee criticised Serbia for failure to assess the transboundary environmental effects of the plant and mine. The new EIA report was published for consultation in February 2017, and is currently pending a decision. The mine expansion was in 2013 exempted from undertaking an EIA process<sup>5</sup>, a decision which appears to conflict with Serbia's national legislation as well as with the EIA Directive under the Energy Community Treaty.

In 2012 the China Banking Regulatory Commission issued the Green Credit Directive as a means of supporting Chinese stakeholders in upholding environmental and social standards in overseas projects. Article 21 states that Chinese banking institutions "*shall...make sure project sponsors abide by applicable laws and regulations on environmental protection, land, health, safety, etc. of the country or jurisdiction where the project is located.*" This provision has so far not been adhered to in the case of Kostolac B3.

Another problem has appeared as the European Union has recently updated its industrial emissions legislation, which Kostolac B3 will be obliged to abide by on entering the EU. However the emissions limits values named in the unit's environmental impact assessment are not in line with the new standards (called the LCP BREF). As an EU accession country, Serbia needs to make sure that any new plant is in line with these standards or it risks being landed with expensive retrofit costs later on.

The plant's contribution to Serbia's energy security is also doubtful, as the Drmno mine suffered serious flooding in 2014. As well as having to mount a huge effort to save the mine during the May floods, between July and September more than 2 million cubic metres of water spilled into the mine, bringing with it around 800 000 cubic metres of sludge and mud, and engulfed mining machinery in mud.



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<sup>4</sup>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."

<sup>5</sup> Ministry of Energy, Development and Environmental Protection of the Republic of Serbia: Decision no.353-02-901/2013-05, dated 26.07.2013.

## Stanari lignite power plant

300 MW, Republika Srpska, Bosnia and Herzegovina

### A question of profitability

The project was initiated by [Energy Financing Team](#) (EFT) and financed by the China Development Bank. The construction, carried out by Dongfang Electric Corporation, started in 2013 and the plant entered commercial operation in September 2016. Due to its use of a dry cooling system, the plant's net efficiency level is only around 34.1 percent, compared to 40 percent required by the current EU best available techniques standard.

Originally the plant's environmental permit allowed air pollution from the plant to be 2-3 times as high as allowed by the Large Combustion Plants Directive. Only after [a complaint to the Energy Community](#) dispute settlement mechanism was submitted by environmental group Center for Environment from Banja Luka in January 2014, [was the permit](#) reviewed. Since the plant was permitted, the Energy Community's rules have changed to require the application of the stricter Industrial Emissions Directive for plants entering operation after 2019, rendering Stanari out of step with the latest standards before it even enters operation.

Stanari is currently under examination by the Espoo Convention due to Bosnia and Herzegovina's failure to notify neighbouring Croatia and Serbia about the plant's potential transboundary impacts. This also raises doubts about whether the project complies with Article 21 of China's Green Credit Directive, requiring national legislation to be followed during its preparation.

In May 2017 media reported that Croatia's HEP is considering buying the Stanari power plant from EFT, or a 50% share in it, raising questions about its profitability.

## 2. Tuzla 7, 450 MW, Federation of BiH, Bosnia and Herzegovina

In August 2014, publicly-owned electricity company Elektroprivreda Bosne and Hercegovine (EPBiH) signed an EPC (Engineering, Procurement, Construction) contract with China Gezhouba Group and Guangdong Electric Power Design for the construction of a new unit at Tuzla, after Japan's Hitachi - also shortlisted - dropped out of the project partly due to its poor economics. The price tag for construction at the time was EUR 785.7 million, but it was later admitted that the project was not economically feasible in this form. The current construction cost of the plant quoted by EPBiH Director Bajazit Jašarević is EUR 722 million, but important questions remain unanswered:

- What compromises have been made in order to bring down the cost?
- What future electricity prices are being assumed?

- What coal price is being assumed? In the original calculations presented to the Federation of BiH Parliament, it was stated that *"the price of coal should not rise above the current level which is already now above the price foreseen in the investment documentation for unit 7 (4.75 KM/GJ), or the target price in the Action Plan for Mine Modernisation (4 KM/GJ). In the event that it does, the competitiveness of the current generation and feasibility of the realisation of the new units will be threatened"*. Yet in 2014 the sales price for coal for power plants was 4.90 KM/GJ. Moreover the sales price is nowhere near to reflecting the production costs, which in 2014 amounted to 6.58 KM.



- Have future costs of CO<sub>2</sub> emissions been included in the calculations and if so, at what price?
- Is the plant feasible if the planned Banovići plant, less than 30 km away, is also built?

The Federation of BiH government plans to provide a guarantee for the loan, but it is not clear under what conditions, raising issues of compliance with its state aid obligations under the Energy Community Treaty.

In November 2013, the Center for Ecology and Energy from Tuzla launched a report on the health impacts of existing and planned coal thermal power plants in the Tuzla area. Using WHO methodology, the study found that coal plants around Tuzla, including Tuzla 7 and the planned unit at Banovići, are expected to cause total health-related economic costs of EUR 810 million and the loss of 39,000 life-years in the period 2015-2030.

Tuzla 7 obtained a new environmental permit in July 2016 as the original one had expired in November 2015. The permit is being challenged in court by Ekotim, partly due to procedural irregularities and partly due to deficiencies in the permit itself. A complaint was also submitted to the Energy Community Secretariat in October 2016 as the permit failed to specify the need to comply with emission limit values from the Industrial Emissions Directive, which is obligatory under the Energy Community Treaty for new plants entering operation after 1 January 2019. The case is still undergoing examination.

In addition, local people from Šićki Brod are resisting the construction of the ash landfill for the new plant. In early April 2016 they delivered a petition with 2100 signatures against the proposal to the Federal Ministry of Environment and Tourism.

### **3. Banovići lignite power plant, 350 MW, Federation of BiH, Bosnia and Herzegovina**

The new plant is planned by is RMU Banovići (Banovići Brown Coal Mines), a primarily state-owned company, alongside the Banovići mine near Tuzla. On 24.11.2015 an EPC contract was signed with China's Dongfang.

There appears to be a serious lack of energy planning and co-ordination between the Tuzla 7 and Banovići projects. It is very unlikely that two plants within just a few kilometres of one another can both be feasible, yet the FBiH government has so far supported both projects.

The capacity of the Banovići plant was changed half way through the tender process from 300 MW to 350 MW, which as well as being questionable from the procurement perspective, meant that a new environmental impact assessment had to be carried out in 2015. A new environmental permit was issued on 11 January 2016 but the Ministry for the Environment and Tourism failed to notify even those who had taken part in the consultation process and it was nearly two months before NGO Ekotim was able to obtain the permit. Ekotim is challenging the permit in court due to deficiencies in the procedure and the content of the environmental impact assessment and permit.

The permit also fails to stipulate clearly whether the plant needs to be in line with the EU Industrial Emissions Directive, which is obligatory under the Energy Community Treaty for new plants. In July 2016 a complaint on this issue was submitted to the Energy Community Secretariat by Ekotim. The complaint was upheld and the Energy Community requested the Federal Ministry for the Environment and Tourism to amend the permit. As far as we know this has not been done.

Another issue of concern with the planned plant is water use. A new reservoir is planned at Ramići that would be used for the coal plant however it appears that filling the reservoir during drier periods may be in direct competition with filling Lake Modrac, which is used for drinking water for Tuzla and for cooling the Tuzla power plant. A further concern is that only an earth dam is planned to keep the reservoir in place, which may not be enough in times of heavy rainfall and may pose a danger to communities downstream. As these weaknesses were been addressed in the environmental permit for the reservoir, it too is now being challenged in court by Ekotim.

#### 4. Ugljevik III lignite power plant, 2 x 300 MW, Republika Srpska, Bosnia and Herzegovina

Ugljevik III is promoted by Russian billionaire Rashid Sardarov's Comsar Energy and would be constructed by the China Power Engineering and Consulting Group Corporation (CPECC). CDB representatives were present at the signing of an agreement between CPECC and the Republika Srpska authorities but have never publicly expressed interest in financing the project.

Like Stanari, Ugljevik III would have a very low net efficiency of 34.1 percent. [An analysis](#) published by Center for Environment in October 2014 shows that the environmental impact assessment is missing key information and that the data on likely emissions of SO<sub>2</sub>, NO<sub>x</sub> and dust are false. This issue is currently being examined by the Energy Community Secretariat after the group submitted an official complaint on the project.

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.

Before the October 2014 elections in Bosnia and Herzegovina there was a flurry of activity around the project, with the Republika Srpska government declaring it a project of public interest and issuing a partial construction permit, but since then there has been little progress. In January 2016 the Republika Srpska government approved some controversial annexes to the concession agreement, stating that it would delay the implementation of EU environmental law for as long as possible, but in April 2016 it was reported that these may be revised again. Since then there has been no obvious movement around the project.

#### 5. Pljevlja II lignite power plant, 254 MW, Montenegro



Elektroprivreda Crne Gore (EPCG) and the Montenegrin government have been pushing this highly controversial new unit for years, although even EPCG's main shareholder A2A is against the project. Only in September 2016 was a contract signed with Czech company Skoda Praha for its construction. The plan was to attract financing from the Czech Export Bank and export credit agency EGAP, but in October 2016 it was [admitted that they would not be backing the project](#).

More recently it has been reported that the Bank of China is interested in financing, although this would be unusual in a project where there is no Chinese company involved in construction.

As well as coal's climate and health impacts, it is clear that the economics of the Pljevlja II plant are highly shaky. Numerous questionable assumptions have been made in the feasibility study and even a European Bank for Reconstruction and Development representative has stated publicly that the bank does not support the construction of Pljevlja II and that the decision was clearly taken on a political basis.

To add to the project's woes, in May 2017 NGO Green Home launched a court case against the decision to approve an environmental impact assessment for the project. The approval, issued by the Environmental Protection Agency in February 2017, failed to include several elements stipulated by law, including a justification for the decision, responses to comments provided during the public consultation, and a list of measures to address environmental damage during the construction and operation of the plant. Among the issues which were not addressed in the decision is the fact that Pljevlja II has not been designed according to new Best Available Techniques standards recently adopted in the EU. This means the plant, if built, would pollute more than allowed.

## 6. Rovinari lignite power plant, 600 MW, Romania

Talks of plans for a new unit at Rovinari involving the China Huadian Engineering company have been going on for several years but the project has not received any significant permits. In October 2014 it [was announced](#) that plans for a new lignite plant at Rovinari had been put on hold. Yet just a couple of weeks later in early November, a [new joint venture company was set up](#) between Huadian and Oltenia Energy Complex (CEO). Therefore the project's future is unclear.

In early December 2014 it [was announced](#) that the European Commission has opened an infringement procedure against Romania for failure to properly apply the environmental impact assessment directive when permitting the clearance of forest and expansion of lignite mining at the complex. In addition, 5 final decisions in the highest court in Romania cancelled the EIA permits for mine expansion.

### Other energy projects in SEE with potential involvement of Chinese companies

As well as the coal power plant projects above, there are a number of other energy sector projects in the pipeline where Chinese companies have expressed interest in participation.

In Serbia, [the projects include](#) the Radljevo lignite mine at the Kolubara mine complex, the Morava 2 lignite power plant, the Štavalj power plant and mine, the Đerdap 3 hydro plants, as well as the Kovin energy complex and Nikola Tesla B3 lignite plant in Obrenovac.

In Republika Srpska, Bosnia and Herzegovina, Chinese company Sinohydro [signed a deal with EFT](#) on involvement in the 35 MW Ulog hydropower plant project on the river Neretva in September 2012, however the project is not going well. Some works on access roads started to be carried out and in April 2013 a construction permit was issued for the main project, but then in early July 2013, within just four days of one another, [two workers died](#) in separate landslide incidents. Local people report that since then little has been happening at the site and the future of the project is currently uncertain.

Chinese companies [are also reported to be interested](#) in the [controversial Morača dam](#) project in Montenegro.

### What next?

With the exception of Stanari, all of the projects are running later than originally projected. The region's energy companies and governments all have ambitious plans for new-build generation capacity, but it remains to be seen how many of them are realistic. Equity participation by the Chinese companies is only planned in Rovinari, but the other projects are not likely to proceed without state guarantees, which add to potential debt and may potentially bring up state aid issues, depending on the conditions of issuance.

The pressure on state resources is all the stronger given that the countries need to either close existing coal units or upgrade them to comply with the EU's Large Combustion Plants and Industrial Emissions Directives (LCPD and IED). A 2013 [study](#) undertaken for the Energy Community estimated that IED compliance will cost Bosnia and Herzegovina EUR 374.7 million, Montenegro EUR 50.9 million and Serbia EUR 710.7 million.

The countries also need to meet renewable energy targets under the Energy Community Treaty and to invest in energy efficiency measures, both of which should be a higher priority than building new coal plants. Trying to cover new-build as well as rehabilitation costs, energy efficiency investments and upping the share of renewables may simply prove to be too expensive for the countries, all of which already have debt issues.

As for China, in September 2015 in a joint statement with the US, [China agreed to work towards strictly controlling public investment flowing into projects with high pollution and carbon emissions both domestically and internationally](#). So far China has taken some strong steps domestically, announcing the closure of around 1000 coal mines and a [three-year ban on opening new ones](#), as well as stopping the construction of over 100 new coal power plants with over [120 GW capacity](#). Its [coal use appears to have peaked](#) in 2013, leading to drops in greenhouse gas emissions. However its commitment to strictly controlling high-carbon investments has not yet been translated into reality in southeast Europe.

**Read more about coal in the Balkans:** <http://bankwatch.org/campaign/coal>