

## Tuzla coal plant's unit 3 conversion project

# The EBRD must stay away from the unsustainable conversion of Tuzla's coal plant and prioritise renewables in the district heating sector

## Red flags over plans to swap coal for waste incineration and biomass in Tuzla

For more information

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The European Bank for Reconstruction and Development (EBRD) is currently assessing<sup>1</sup> whether to grant a EUR 50 million loan to Elektroprivreda BiH (Bosnia and Herzegovina's public electricity provider and supplier) in order to replace unit 3 of the Tuzla coal plant with a waste and biomass incineration system. This solution is unfeasible and will undermine the country's climate and environmental goals.

In accordance with the opt-out option of the Industrial Emissions Directive (IED), unit 3 of the Tuzla thermal power plant, which has an installed capacity of 100 megawatts (MW) of electricity and 220 MW of thermal energy, should stop operating

<sup>1</sup> In September 2022 parties signed mandatory letter, [TE Tuzla: Blok 3 bi mogao sa uglja da pređe na drvenu biomasu](#), *Tuzlanski.ba*, 7 September 2022.

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on coal by the end of 2023. Unit 3 is connected to the district heating system of the cities of Tuzla and Lukavac, which is why Elektroprivreda BiH is considering alternative solutions for its complete conversion into plants for biomass and waste incineration.

The plan is for willow crops and waste wood to serve as the main fuel for district heating. This fast-growing biomass would provide 80 to 90 per cent of the plant's fuel mixture, while the incineration of waste (RDF/SRF) would make up the other 10 to 20 per cent.

## Waste incineration is a dead-end for Tuzla

There is a big risk that the project could end up as a failed investment given that the entire canton of Tuzla cannot produce sufficient quantities of the specific types of waste required for the existing Tuzla heating network to operate.<sup>2</sup>

The existing waste incineration facilities in the canton of Tuzla – the Kakanj and Lukavac cement factories – currently use approximately 120,000 tonnes per year from industrial and communal waste to generate up to 70 and 80 per cent, respectively, of their total heating power. However, there is not currently enough waste for these facilities, which is why approximately 10 per cent of the waste materials that are incinerated are imported from EU countries, including Italy, Slovenia and Austria.<sup>3</sup>

Once built, the waste co-incineration plant in Tuzla will need waste with a high energy content, which will not only threaten the recycling of energy-rich materials, but will also encourage the importing of waste from European countries, which is concerning given the region's poor control and enforcement of waste management regulations.

The incineration of waste requires strict and expensive pre-treatment and monitoring of municipal waste in order to keep emissions within legal limits. If we consider Tuzla's poor existing record of controlling and preventing emissions of polluting substances, the chances of further incineration taking place within legal frameworks are minimal. Despite the fact that Tuzla abounds in unused solar (1,100 kilowatts per square metre per year<sup>4</sup>), geothermal, waste and wind energy as well as storage potential, Elektroprivreda BiH and the EBRD are favouring unsustainable solutions that threaten climate goals, the implementation of which the country is seriously lagging behind on. The country is also far from meeting its waste management goals; the current percentage of waste recycling is 0 instead of its target 20 per cent, according to the latest official data from 2019.<sup>5</sup>

## Short rotation plantation of willow as heating fuel is unfeasible

An additional problem is the lack of physical space needed to plant enough fast-growing willow required as biofuel for the new plant. The total allocated area amounts to just 1,075 hectares at the sites of the Kreka,

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<sup>2</sup> Bernhard Schneider, [Sažetak studije: "Analiza održivih opcija grijanja za grad Tuzla, Federacija Bosne i Hercegovine"](#), CEE Bankwatch Network, September 2021.

<sup>3</sup> Osman Zukić, [Zelene milje: Alternativna goriva su korak prema dekarbonizaciji](#), Al Jazeera, 23 April 2022.

<sup>4</sup> [Global Solar Atlas, Bosnia and Herzegovina](#), Global Solar Atlas, accessed 3 August 2022.

<sup>5</sup> European Environment Agency, [EEA Europe: Municipal waste treatment Bosnia and Herzegovina data sheet 2021](#), European Environment Agency, 26 April 2022.

Breza and Đurđevik mines. However, according to optimistic projections, it is necessary to plant between 69,127.2 and 93,748 hectares for willow to provide 80 per cent of the fuel needed for the converted Tuzla plant.<sup>6</sup> It would also be necessary to provide irrigation and an additional source of energy to dry the obtained green wood mass. There is simply not enough land available to grow the fuel, which is one of the key failures of this project.

What is more, Elektroprivreda BiH deployed test plantings of short rotation coppice willows in the spring of 2022 on the recultivated pit of the Šićki Brod mine in Tuzla, as well as a few more recultivated sites. Even on this small scale, the test plantations are in seriously struggling to survive,<sup>7</sup> which should be an alarming sign for the EBRD and other investors, and it should encourage them to halt further project development and invest in more sustainable energy sources for Tuzla.

## Call to the EBRD

As we are faced with both a climate emergency and energy scarcity, we recognise the fundamental need to work together with all stakeholders to combat climate change while also ensuring that people have warm, safe homes, in this case for the citizens of Tuzla and Lukavac. We call on the EBRD to commit to:

- Halting further project development on the conversion of unit 3 of the Tuzla thermal power plant from coal to waste incineration and biomass, as it will lead to new, highly polluting practices that fuel the climate crisis or otherwise compromise environmental protection.
- Prioritising the use of solar, geothermal and other sustainable energy resources in combination with investments in supporting technologies such as thermal energy storage in mine pits and the deployment of heat pumps, as was recommended in [Bankwatch's analysis of clean alternatives for district heating from 2021](#).
- Applying the precautionary principle for all non-evidence-based heating projects where there is a great risk that projects might harm the achievement of a country's climate and environmental goals or those of the EU, since BiH and other Western Balkan countries have not successfully adopted all of these goals.

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<sup>6</sup> [Biofuelwatch submission setting out concerns regarding EBiH plans to replace Unit 3 of Tuzla coal power plant with a biomass unit](#), *Biofuelwatch*, 16 October 2022.

<sup>7</sup> [Bankwatch and Aarhus centre BiH video material from Šićki Brod](#), October 2022.