

THE UNPAID HEALTH BILL

How coal power plants in **KOSOVO** make us sick



This factsheet which is part of a report by the Health and Environment Alliance (HEAL) entitled "The Unpaid Health Bill – How coal power plants in the Western Balkans make us sick" provides an assessment of the **health impacts and costs** associated with **air pollution** from **coal and lignite combustion at existing power stations in Kosovo**. It also estimates the costs for **planned** plants.

The two existing coal power plants create up to 352 EUR million per year in annual health costs, of which 169 EUR million fall on the population within the region

Coal power plants emit thousands of tonnes of hazardous air pollutants each year making a significant contribution to air pollution in the Balkans region and beyond. **Existing coal plants in Kosovo create a total of between 70 and 169 EUR million per year** in health costs to people and governments in the region. **Due to long-distance travel of pollutants in the air,** plants in Kosovo are creating a total of between 144 and 352 EUR million health costs per year to Europe. Plants in Kosovo are generally operating on low environmental standards generating high levels of polluting emissions and high impacts on health.

Continued reliance on coal?

Currently home to two existing coal plants, Kosova A and B, with an installed capacity of 1.4 GW, Kosovo could see the installation of one new project, Kosova C with a 600 MW capacity. In recent years, the Kosova A plant has been working with a lower capacity, because three of its units are not running due to technical issues. With the change to new coal plants, existing units will be shut down. The building of Kosova C would mean that Kosovo would continue to rely on the most polluting form of energy for many decades to come.

The one new coal plant, Kosova C - could add health costs of up to 34 EUR million per year

New coal plants in Kosovo and other Western Balkan countries would operate under much stricter air emission standards than today. However, the future new plant could create additional health costs for the population in the Western Balkan region of between six and 14 EUR million per year. This could create a total cost of between 14 and 34 EUR million per year to Europe.

HEAL recommends that: National energy plans should be revised to reduce the reliance on coal and ultimately to phase it out, and to increase investment in renewables. This presents an important opportunity in health prevention in Kosovo.

What are the unpaid health costs?

This country factsheet provides a monetisation of the health impacts of air pollution from coal power plants in Kosovo. We call these "unpaid costs" on human health because the health damage has to be borne by individuals, their families and society, and not by those responsible for the pollution. Currently, Kosovo is home to two coal plants with four operational units. Three of the units of the Kosova plant have recently been shut down and one of the units is operating at lower capacity due to technical issues, so the current running capacity is 888 MW. In 2014, technical failures led to a tragic explosion in Kosova A, where several people lost their lives.

Calculation of the damage of coal plants in Kosovo

Research commissioned for this factsheet shows that coal plants in Kosovo are producing costs of between 70 and 169 EUR million in damages to the health of citizens in the region. Damages to health by these two coal plants are causing between 144 and 352 EUR million per year to Europe. This is due to winds that carry coal fumes several hundred kilometres causing transboundary air pollution.

The unpaid health bill for existing coal plants in Kosovo



Damage to Western Balkans (lower to upper estimate), in EUR million/year
Damage to Europe (lower to upper estimate), in EUR million/year

TOTAL DAMAGE TO WESTERN BALKANS 70 - 169 TOTAL DAMAGE TO EUROPE 144 - 352

Figure 1. Estimated health costs from existing coal plants to the population in the Western Balkans and in Europe (upper and lower estimate), in EUR million/year

Note: Health costs given for the Western Balkans are part of the total health costs for Europe, and thus the amounts cannot be added up. In this context, Europe includes EU28 member states plus Albania, Belarus, Moldova, Norway, the Western regions of Russia, Switzerland, Ukraine, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia.

Kosovo – home to some of the most polluting coal plants in Europe Meet the ten most polluting coal power plants in Europe¹ PM_{2.5} козоvо SERBIA ROMANIA SERBIA SERBIA GREECE козоvо MACEDONIA ROMANIA GREECE Kolubara Mintia Kostolac B Nikola Tesla A Kardia Kosovo B Oradea II Ptolemaida Bitola Kosovo A 1.049 1.094 1.166 1.674 1.989 2.012 2,025 2.687 2.687 4.851

Of all pollutants emitted, the most damaging to health is particulate matter PM2.5. Kosova A and B are the biggest emitters in Europe with a total of 7,500 tonnes of PM2.5 per year. These units are emitting four times more PM2.5 than most of the Balkan coal plants and the record emitter is unit

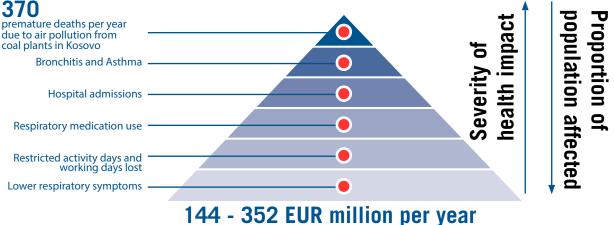
5 of the Kosova A plant who emits nine times more PM2.5 than the average Balkan plant.

The Kosova B plant is one of the biggest emitter of NOx in the Balkans with 14,520 tonnes per year. The plant is emitting three times more NOx than the average Balkan plant.

What are the damages to health?

Figure 2 below shows the health damage from air pollution from the two Kosova coal power plants. The most severe impact is at the top (premature death) affecting a smaller number of the population and the least severe impact is at the bottom with a large number of people affected (cases of lower respiratory symptoms).

Health impacts and costs from coal power generation in Kosovo



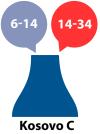
Total health costs

Figure 2. Factors contributing to total damages caused by coal plants in Kosovo

New plants would only add to the health burden

Kosovo has announced the building of two new units – Kosova C - with a capacity of 600 MW, to replace existing old power plants. This new Kosova plant is being pushed by the United States government and the World Bank. However, it was strongly opposed by local communities, for example the Association of Pulmonologist of Kosova and global movements such as 350.org and SierraClub. Decade old plans for new plants change from day to day and it seems that the Kosovo government has no clear vision of how to go further with a healthy energy strategy. If plans for the future 600 MW capacity coal plant go ahead in full, additional health costs could total up to 34 EUR million per year. This figure is made up of between six and 14 EUR million per year in health costs for the Western Balkans countries.

The unpaid health bill for future coal plant Kosova C in Kosovo



Damage to Western Balkans (lower to upper estimate), in EUR million/year
Damage to Europe (lower to upper estimate), in EUR million/year

Note: Health costs given for the Western Balkans are part of the total health costs for Europe, and thus the amounts cannot be added up. In this context, Europe includes EU28 member states plus Albania, Belarus, Moldova, Norway, the Western regions of Russia, Switzerland, Ukraine, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia

Figure 3. Estimated health costs from the planned new plant in Kosovo to the population in the Western Balkans and to Europe (upper and lower estimate), in EUR million/year

Due to anticipated higher standards of pollution control for new plants, the costs to health will be relatively less. New coal plants need to be compliant with EU legislation. That is good news for health, because they must use "best available technologies" to filter the pollution from the air. Kosovo's obligations to comply with strict air emission standards is

a result of its membership of the Energy Community, an international organisation dealing with energy policy.

Kosovo has binding national targets to achieve 25 percent of its energy through the use of renewables by 2020². This should involve the phase out of coal and opting for renewables, which is the healthy and sustainable way ahead.

The way forward: healthy energy choices



POLICY RECOMMENDATIONS TO KOSOVON DECISION-MAKERS THEY SHOULD >>>>>

⇒ Rapid phase out of coal: Close all old coal-fired plants and do not build new ones;

HEAL considers that a phase out of coal power generation for the EU is possible by 2040. Kosovo should achieve the decarbonisation of the power sector in about the same time frame.

- Take into account health protection in all energy decisions and opt for renewables and energy savings;
- → Align national laws with WHO recommendations and fully implement existing air laws to take responsibility for providing clean air for the national population to breathe, and;
- Fulfil the obligations and fully implement standards agreed in international treaties, such as the Energy Community, Kyoto protocol and Paris Treaty.

HEALTH PROFESSIONALS SHOULD SPEAK ABOUT THE UNPAID COSTS OF COAL

Health and medical professionals have a unique role to play in encouraging a transition from polluting to healthy forms of energy in Kosovo. They should continue debates on the healthy energy options with the ministry of health, ministry of energy and other governmental institutions, as well with the public. Making widely known the true costs of coal power generation will help benefit public health.

References

¹ Data on emissions for existing plants see Methodology at a glance in the main file of the report "The Unpaid Health Bill – How coal power plants in Western Balkans make us sick".

² https://www.energy-community.org/portal/page/portal/ENC_HOME/AREAS_OF_WORK/Obligations/Renewable_Energy

About HEAL

The Health and Environment Alliance (HEAL) is a leading European not-for-profit organisation addressing how the environment affects health in the European Union (EU). With the support of more than 70 member organisations, HEAL brings independent expertise and evidence from the health community to different decision-making processes. Our broad alliance represents health professionals, not-for-profit health insurers, doctors, nurses, cancer and asthma groups, citizens, women's groups, youth groups, environmental NGOs, scientists and public health research institutes. Members include international and Europe-wide organisations as well as national and local groups.



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