The official National Energy and Climate Plan, which Bulgaria has submitted to the European Commission, foresees the use of coal beyond 2030. The study shows this would result in considerable pressure on the local ecosystems due to lower remaining water budgets for local consumers, agriculture and other industries.

The coal-power energy sector is using enormous amounts of fresh water which is projected to negatively affect lives and the ecological balance of the surrounding region. This is the conclusion of the new report The Unquenchable Thirst of Energy Production, published by Greenpeace Bulgaria, exposing a deep link between water use, energy generation, and climate change.

The study was conducted by scientists at the Institute of Environmental Sciences (CML) of Leiden University's Faculty of Science in the Netherlands. It uses new, innovative scientific state-of-the-art hydrology and water resource modelling which combines different climate change scenarios and energy generation. The report predicts future impacts on the waters of the East Maritsa basin, a region where 90% of the Bulgarian coal capacity is located, while projected to be among those most at risk from climate change in Europe.

Dr. Ranran Wang, an assistant professor at the Institute of Environmental Sciences (CML) of Leiden University said: "Many regions are already experiencing disruptions in water availability for electricity generation due to climate change, a trend that is likely to continue. In the main branch of the Maritsa river, near-term climatic changes by 2050 reduce even further the minimal water flows in dry months. This indicates a high potential for droughts and lower water availability not only for electricity generation, but also for urban, agricultural, and industrial sectors. Relying on fossil fuels in the future will only exacerbate these trends. Our study shows that the timing of the coal energy phase-out is the most significant policy decision in this regard."

With around 40% of its electricity coming from coal, Bulgaria is one of the EU countries most heavily reliant on this dirty fossil fuel, with no foreseeable coal phase-out date. Other coal-addicted countries in Europe are also experiencing struggles for water. For example, the Polish Turow coal mine is a threat to drinking water for thousands of Czech people. Not only do taps and wells often lack water, but mines and plants become the sources of water pollution, as the previous Greenpeace Bulgaria report on the Bobov dol coal power plant proved.

"If Bulgaria continues down this path, beholden to the coal industry, not only will it harm the health of Bulgarians, water resources and our natural environment, it poses a potential hazard to the energy security of the country. The upcoming elections in Bulgaria are a crucial moment for people to choose the right direction. More frequent deadly heatwaves,

droughts and floods are showing us what climate change caused by fossil fuels looks like. We need to harmonize our society with the natural world, and Bulgaria cannot afford to be laggards here, because playing catch up with progressive climate policies is a matter of life or death. The latest science, such as this report, needs to be consulted when making political decisions about climate change mitigation, adaptation to extreme weather events, and water resource management when formulating policies," said Meglena Antonova, Program Director of Greenpeace Bulgaria.

"Electricity generation will continue to have significant and potentially increasing impacts on aquatic ecosystems as the world warms. We have the tools, such as the hydrological modelling, to understand the sophisticated relations among energy production, climate change, water and ecosystem health and predict future developments with very high certainty. Decision-makers can use that valuable knowledge to plan for the resilient future of communities, especially in regions like the Maritsa River basin", said Dr. Valerio Barbarossa, one of the authors of the report and one of the leaders in climate modelling science.

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