

What type of electricity does North Macedonia use?

North Macedonia relies predominantly on fossil fuels (low-grade lignite and gas) and hydropower, and is dependent on electricity imports. The total generation of electricity in 2022 was 5,634 GWh, and another 1,471 GWh was imported to satisfy the total domestic electricity demand.

Does North Macedonia support solar?

North Macedonia is currently supporting large scale solar through a series of tenders. The most recent one was launched by the Ministry of Economy in July. Other solar tenders were previously held in the country by the state-owned electric company Elektrani na Severna Makedonija (ESM).

Are sodium-based energy storage devices sustainable?

However, the performance and sustainability of current sodium-based energy storage devices mostly rely on various critical materials and traditional energy-consuming fabrication processes. Meanwhile, the detailed working mechanisms of some sodium-based energy storage technologies are still under debate.

How many photovoltaic projects are in North Macedonia?

The government of North Macedonia has granted strategic investment status to two photovoltaic projects with a combined capacity of 155 MW. One of the two facilities has a capacity of 85 MW and is being planned by Renewable Power International in the municipality of Karbinci, in the eastern part of North Macedonia.

What is sodium based energy storage?

Sodium-based energy storage technologies including sodium batteries and sodium capacitors can fulfill the various requirements of different applications such as large-scale energy storage or low-speed/short-distance electrical vehicle. [14]

Are advanced material design strategies needed for sodium-based energy storage technologies?

Therefore, advanced material design strategies are needed to address those issues of electrode materials including hard carbons and thus enhance the overall sustainability of sodium-based energy storage technologies.

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For a more in-depth look at barriers to a sustainable energy transition in North Macedonia and our proposals for how to overcome them, see our 2021 study with the Friedrich Ebert Stiftung: The Political Economy of Energy Transition in Southeast Europe - Barriers and Obstacles.

Increasing the share of the energy from renewable energy sources (RES) in the total energy consumption is

one of the major strategic objectives of the Government of the Republic of North Macedonia.

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