The role of solar power generation and energy storage in Tajikistan

When is solar energy used in Tajikistan?
As shown in Fig. 9,the SPHS plant in Tajikistan stores solar energy seasonally from April to Novemberand generates electricity with a higher capacity factor during February and March. The main objective of hydropower is to supply water downstream and reduce its generation substantially in January and February.

Will Tajikistan produce electricity in 2050?
Monthly electricity generation,demand,and pumped-storage electricity consumption in Tajikistan in 2050. In 2050,Tajikistan is expected to produce most of its electricity from solar power(Fig. 9). The hydropower reservoir focuses on guaranteeing the supply of water to meet the demand in Uzbekistan and Turkmenistan. 3.2.1.

Why does Tajikistan need hydropower?
The main objective of hydropower is to supply water downstream and reduce its generation substantially in January and February. The demand in Tajikistan is smaller than the generation. This is because the main part of the electricity is exported to other countries, mainly Uzbekistan (exports to Afghanistan are not considered in this study). Fig. 8.

What is the main source of energy in Tajikistan?
Hydropoweris the main source of energy in Tajikistan,followed by imported oil,gas and coal. However,Tajikistan's energy sector is prone to supply shocks. Energy policy focuses on providing uninterrupted energy access to all users while improving regio

What are the benefits of a hydropower reservoir in Tajikistan and Kyrgyzstan?
The hydropower reservoir focuses on guaranteeing the supply of water to meet the demand in Uzbekistan and Turkmenistan. 3.2.1. System costs and CO 2 emissions The construction of SPHS in Tajikistan and Kyrgyzstan offers economic benefitsfor the whole region.

How can Tajikistan decarbonise its energy sector?
New techniques and technologies will be needed to decarbonise these areas. Hydropower is the main source of energy in Tajikistan, followed by imported oil, gas and coal. However, Tajikistan's energy sector is prone to supply shocks.

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