## **SOLAR** PRO. **Tajikistan safe energy systems**

#### Why is electricity important in Tajikistan?

Electricity is an integral part of Tajikistan's economy, and providing a clean, affordable and secure supply of electricity has been of paramount importance for the government since independence. Despite its energy potential, Tajikistan's energy sector is susceptible to supply shocks.

Why is energy security important in Tajikistan?

Energy security in Tajikistan is critically unstableand therefore of central concern for the government. The country relies on hydropower for nearly all its electricity needs, but seasonal generation volatility means that there is a surplus of electricity during the summer and a shortfall during the winter.

#### What is IEA's energy sector review of Tajikistan?

This International Energy Agency (IEA) energy sector review of Tajikistan was conducted under the auspices of the EU4Energy programme, which is being implemented by the IEA and the European Union, along with the Energy Community Secretariat and the Energy Charter Secretariat.

#### Why is Tajikistan transforming its energy system?

This report backs the transformation of Tajikistan's energy system, which is capable of achieving energy sector development goals that will provide affordable, secure and clean energy for its population and neighbouring markets, while contributing to the region's energy transition and climate change goals. 1.

Does Tajikistan have a good energy infrastructure?

While Tajikistan has been successful in providing universal access to electricity, the existing systems of its energy infrastructure function inefficiently. The large majority of hydro plants were built in the Soviet era and are ageing and require rehabilitation.

#### What is the energy system in Tajikistan?

Tajikistan's energy system depends primarily on hydroelectricity,coal and oil. Hydropower and coal are produced domestically whereas virtually all oil and gas must be imported to meet the demand. This also explains the high share of electricity in final consumption, as well as the increasing use of coal in both transformation and industries.

CAREC Energy Outlook 2030 notes that hydropower is the foundation of Tajikistan's energy system, accounting for nearly 93% of its power generation and around 90% of its installed capacity. Tajikistan's energy sector is one of the cleanest in the world in terms of greenhouse gas (GHG) emissions.

Tajikistan has returned to the unified energy system. Recall that in June of this year, Tajikistan approved the "Strategy for the Development of energy cooperation among the member states of the Shanghai Cooperation Organization until 2030". This means Tajikistan's return to the Unified Energy Ring of Central Asia.

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Energy storage systems and electricity interconnections are key solutions in this context, allowing for respectively storing or transferring ... the dramatic energy crises in Tajikistan, the discontinued electricity trade has also resulted in a range of missed opportunities for its Uzbek neighbour, both economically and environmentally.

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The Pamir Energy Company was the first public-private partnership, which is a concession agreement to serve the GBAO autonomous region. The hydropower plant Sangtuda-1 was commissioned in 2009 and is operated by the Russian company, Unified Energy Systems. Sangtuda-2 was commissioned in 2011 and is operated by Iranian company, Sangob.

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Tajikistan's energy system, which is capable of achieving energy sector development goals that will provide affordable, secure and clean energy for its population and neighbouring markets, while contributing to the region's energy transition and climate change goals. IEA. All rights

This International Energy Agency (IEA) energy sector review of Tajikistan was conducted under the auspices of the EU4Energy programme, which is being implemented by the IEA and the European Union, along with the Energy Community Secretariat and the Energy Charter Secretariat. With abundant water potential from its rivers, natural lakes and glaciers, Tajikistan ...

Energy policy focuses on providing uninterrupted energy access to all users while improving regio 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.

This assistance will be provided through the two workstreams, regional and bilateral. While bilateral programs will be implemented in four countries - Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, the assistance will also target Turkmenistan within the regional component.

Energy security in practice: moving beyond traditional pathways 2.4. Energy security and vulnerability The prospects for achieving energy security in Tajikistan depend, in part, on the country's energy system vulnerabilities, especially within the two major sectors of the energy system: electricity and fuel (including coal, oil and gas).

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The Energy Utility Partnership Program (EUPP) is supported by the U.S. Agency for International Development (USAID) Bureau for Development, Democracy, and Innovation (DDI) and implemented by the U.S. Energy Association (USEA). EUPP works around the world to promote energy security, clean energy access, and capacity building to achieve self ...

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developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by year-end capacity x 8,760h/year. Avoided

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. Energy policy focuses on providing uninterrupted energy access to all users while improving regio

Tajikistan's geographic proximity to some of the world's fastest-growing energy markets means that investing in developing its hydropower potential can contribute to regional energy security and the clean energy transition, in addition to addressing Tajikistan's high vulnerability to climate change and natural disasters upled with the ...

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