Benefits of energy storage uzbekistan

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In this vision, Uzbekistan succeeds in maximising the benefits of solar energy capacity for both electricity and heat, making solar energy one of the country"s major energy sources. Solar energy potential with specific technologies - including solar PV, floating solar PV, CSP, PV2heat, solar thermal, district solar heating and electric heat ...

TASHKENT, May 21, 2024 -- The World Bank Group, Abu Dhabi Future Energy Company PJSC (Masdar), and the Government of Uzbekistan have signed a financial package to fund a 250-megawatt (MW) solar photovoltaic plant with a 63-MW battery energy storage system (BESS). The project aims to expand clean and reliable electricity access to approximately ...

Uzbekistan remains one of the most energy-intensive economies in the world. Energy use is largely based on fossil fuels, although the country has significant RE potential in solar and wind. Natural gas makes up to 83 percent of total primary energy consumption and more than 80 percent of the electricity mix.

In Uzbekistan, the use of innovative battery storage with solar plants is still new, but the potential benefits are significant. Battery storage can help stabilize the national grid, reduce reliance on fossil fuels, and provide a more reliable power supply to remote areas.

The development objective of the Solar and Renewable Energy Storage (USRES) Project for Uzbekistan is to increase private sector led renewable energy supply in Uzbekistan. The project comprises of one component, construction, and operation of a 250 MW solar power plant and 63 MW/126 MWh of battery energy storage system (BESS) by Abu Dhabi ...

BAKU, Azerbaijan, July 3. As renewable energysources are intermittent, developing efficient energy storagesolutions will be key to ensuring a stable power supply inUzbekistan, the International Finance Corporation (IFC, a member ofthe World Bank Group) Regional Manager for Uzbekistan andTurkmenistan, Neil McKain, told Trend in an exclusive interview.

"Uzbekistan, like many countries, confronts numerous obstaclesin its efforts to switch to renewable energy. The country hassubstantial natural gas reserves, and the economy is heavilyreliant on fossil fuels. Transitioning away from these energysources can be economically and politically challenging. Itrequires building public support and raising awareness of the manybenefits of renewable energy," he said.

Neil McKain noted that building the necessary infrastructure,such as solar farms, wind turbines, and an updated electrical grid,requires significant investment, time, and technical expertise.Also, securing the required capital can be difficult, as it ofteninvolves large upfront costs and long-term investment before seeingreturns. Addressing these multifaceted challenges will requirecoordinated efforts from the government,

private sector, andinternational partners.

The representative of IFC noted that, in collaboration withother lenders, the corporation also provided a financing package tosupport the construction of a 500-megawatt wind farm in the Navoiregion, which is also being built by Masdar. Capable of powering500,000 homes, it will be the largest facility of its kind inCentral Asia -- and, incidentally, the largest wind farm IFC hasever sponsored.

He stressed that at this point, IFC"s portfolio in PPPTransaction Advisory in Uzbekistan includes projects at variousstages of development and covers the energy, healthcare, andeducation sectors, with an overall expected mobilization ofapproximately $700 million. In addition, the IFC has closed severalprojects in the energy and healthcare sectors, with an overallexpected mobilization of approximately $1.8 billion.

He added that another key innovation in the solar energy sectoris the integration of battery energy storage systems. These systemsare crucial for addressing the intermittent nature of solar power,as they store excess energy produced during peak sunlight hours andmake it available during periods of low solar generation or highdemand. This not only ensures a stable energy supply but alsoenhances the efficiency of solar plants. The battery energy storagemarket is at a critical juncture in its evolution, with prices andtechnologies expected to become even more favorable over time.

"In Uzbekistan, the use of innovative battery storage with solarplants is still new, but the potential benefits are significant.Battery storage can help stabilize the national grid, reducereliance on fossil fuels, and provide a more reliable power supplyto remote areas. It can also support the country"s goals ofreducing greenhouse gas emissions and transitioning to a moresustainable energy system," he said.