School energy storage somalia

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The Federal Government of Somalia (FGS) is taking significant strides in promoting renewable energy within the education sector. The Ministry of Energy and Water Resources (MoEWR) has initiated the implementation of standalone solar PV systems in educational facilities across Banadir. This initiative, part of the Somalia Electricity Sector Recovery Project (SESRP) financed by the International Development Association (IDA), aims to increase access to cleaner and more affordable electricity services.

The project targets 200 educational facilities, including primary and secondary schools, tertiary institutions, and Ministry of Education offices, to reduce electricity costs and ensure a reliable power supply. The solar PV systems, combined with battery energy storage systems (BESS), will cater to the specific energy demands of each facility.

The Environmental and Social Management Plan (ESMP) highlights both the positive and potential negative impacts of the solar PV systems, proposing measures to mitigate risks while enhancing benefits. The ESMP ensures the project’s sustainability by addressing environmental and social concerns, engaging stakeholders, and establishing a comprehensive management plan for the project’s construction, operation, and decommissioning phases.

Stakeholder consultations, including interviews with facility heads and site reconnaissance, were conducted to assess the feasibility and impact of the solar PV installations. The assessment revealed that the proposed sites in Banadir, covering both public and private institutions, have adequate space and infrastructure to support the solar PV systems.

This initiative aligns with the SESRP’s broader goals of optimizing renewable energy generation, improving public service delivery, and enhancing sector governance and capacity. By electrifying educational facilities, the FGS aims to attract and retain skilled workers, improve emergency response capabilities, and foster community co-benefits.

The implementation of solar PV systems in Banadir’s education sector marks a significant step towards Somalia’s energy transition, showcasing the country’s commitment to sustainable development and clean energy solutions.

Climate change has exacerbated Somalia"s already challenging conditions, bringing extreme weather events like droughts that have devastated livestock and crop production - particularly in rural areas. These conditions have led to increased malnutrition among children and highlighted the urgent need for reliable energy sources to support essential services.

Somalia"s focus on solar energy is a critical step toward addressing these challenges. The Ministry of Energy

and Water Resources has announced the award of tenders for installing solar power systems in 46 educational facilities in the southern Banadir region - including the capital, Mogadishu.

These systems range from 16 kW to 250 kW, with accompanying solar energy storage systems ranging from 50 kWh to 800 kWh. Funded by the World Bank under the Somali Electricity Sector Recovery Project (SESRP), these projects aim to increase access to and security of energy supply across Somalia.

The companies awarded the tenders will have eight months to complete each project. In November 2023, the Abu Dhabi Fund for Development will inaugurate a 3.5 MW solar power plant in Bosaso, which will become the city"s main electricity source. This project is part of a broader initiative by the UAE to support clean energy development in Somalia and other African regions.

Somalia"s installed solar capacity increased by 8.5% last year, reaching 51 MW compared to 47 MW in 2022, according to the International Renewable Energy Agency. In early 2024, the federal government - in partnership with the United Nations Development Programme (UNDP) - launched a three-year, $228 million "Africa Mini-Grid" project. This initiative aims to develop rural areas through small, localized solar grids; therefore providing reliable and sustainable energy, reducing carbon emissions, and enhancing resilience to climate change. The project targets 21 African countries - including Somalia - for mini-grid rollouts.

UNDP Somalia representative Jocelyn Mason emphasized the transformative potential of these projects, noting that access to energy is crucial for essential services like education and healthcare. With 65% of Somalis lacking electricity, expanding energy access could significantly improve living standards. Minister of Energy and Water Resources, Jama Taqal, stated that Somalia"s solar energy projects would greatly enhance access to clean electricity and improve service delivery across the nation.