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SANTO DOMINGO. The Dominican Republic will need around 250 to 400 MW megawatts (MW) of installed capacity in biomass energy storage systems (BESS) by 2028, with the aim of guaranteeing the stability of the electrical system and optimizing the use of renewable energies.

This estimate is made in the context of the growing deployment of renewable sources in the country, such as solar energy, which, despite being clean and sustainable, presents challenges to be taken into consideration due to its intermittency.

"Solar energy is not generated at night or during times of low solar radiation, which requires resorting to storage to cover the peaks in demand that occur during those hours, when renewable generation is lower," explained the Minister of Energy and Mines, Joel Santos, during his speech at the Dominican Republic Energy Storage Summit 2024, held at a hotel in the National District.

The minister stressed that energy storage will be crucial to transfer that energy to the hours of greatest demand, a phenomenon that could be more frequent on non-working days, such as Sundays and holidays.

The meeting, organized by the Ministry of Energy and Mines in collaboration with the Latin American Energy Organization (Olade) and Huawei, focused its debate on the fundamental role of energy storage in the transition towards a cleaner and more efficient energy system.

During his presentation, Santos stressed that BESS systems are essential to efficiently integrate renewable energy into the National Interconnected Electric System (SENI). These systems allow energy to be stored during periods of low demand and released when consumption increases, which helps moderate price fluctuations through arbitration and give greater stability to the system.

The Minister also highlighted the additional services offered by BESS systems, such as frequency regulation and grid stabilisation, which contribute to balancing supply and demand in the short term and ensuring a resilient energy system.

In this regard, he reported that the Ministry of Energy and Mines, together with the National Energy Commission (CNE) and the Superintendency of Electricity (SIE), is working on updating the regulatory framework to ensure compensation to create the appropriate framework in which these systems can be developed.

Santos stressed that the SIE is reviewing the regulations to recognize the specific contribution of BESS systems and encourage their implementation in the Dominican electricity market.

"The integration of energy storage is crucial to maximise the use of renewable sources, reduce costs for consumers and ensure the stability of the electrical system," concluded Santos, who was optimistic about the positive impact of this event on progress towards a more sustainable energy future.

For his part, Edward Veras, director of the CNE, announced that 15 clean energy projects with storage have been approved. He reported that currently about 15 clean energy projects have been approved, which include solutions for storage.

"These projects incorporate a storage fraction. It is important to remember that we must ensure the financial viability of each initiative, so it is not required that all the energy generated be stored. As the costs of inputs for generation and storage decrease in the international market, storage capacity can be increased," explained Veras.