Solar energy research and development san salvador

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El Salvador has experienced a remarkable 160-fold increase in solar energy generation capacity from 2015 to 2023, according to data from the Latin American Energy Organization (Olade). This surge is attributed to the growing number of solar farms across the country, which now contribute significantly to the national energy grid. The nation boasts over 60 solar plants, with 21 of them receiving construction permits during the administration of President Nayib Bukele. These projects represent a $152.6 million investment.

Among the most prominent solar projects are the San Isidro Photovoltaic Solar Park in Caba?as Este, La Independencia 2 in La Libertad Oeste, and La Esperanza Solar Plant in Cuscatl?n Norte. The state-run Talnique Solar plant, operated by Inversiones Energ?ticas (INE), stands out as the first government-owned solar facility, inaugurated in December with a capacity of 17 megawatts peak (MWp).

Currently, El Salvador"s solar plants generate 539.07 gigawatt hours (GWh), accounting for 7.31% of the national energy mix. This marks a significant leap from the 94.8 GWh produced in 2017, according to the General Directorate of Energy, Hydrocarbons, and Mines (DGEHM).

Oscar Funes, Vice President of the Salvadoran Renewable Energy Association (ASER), highlighted that El Salvador is now better positioned in solar energy compared to other countries in the region. He attributed the surge to favorable solar radiation levels and a 33% drop in installation costs over the past five years, as well as streamlined government processes for obtaining permits.

Looking ahead, Funes noted that the development of solar energy projects combined with battery storage is gaining traction, ensuring continuous energy supply day and night. AES El Salvador, a key player in this sector, has built 34 solar plants since opening its first in 2015, further solidifying the country"s position in renewable energy innovation.

Through a rigorous and collaborative process involving local representatives, this study integrates diverse datasets covering population density, land use and infrastructure networks, as well as renewable and meteorological data, to identify favourable zones in El Salvador for utility-scale solar photovoltaic (PV) and onshore wind projects.

The analysis reveals that a significant portion of El Salvador"s land area is well suited to solar PV (12.2 GW) and onshore wind (0.24 GW) development, with priority zones identified along existing and planned transmission lines and road networks. The findings provide insights on maximum development potential to inform national infrastructure planning and contribute to high-level policy frameworks aimed at achieving universal electricity access and mitigating the impact of climate change.

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San Salvador’s Mayor, Mario Dur?n, unveiled plans to integrate solar energy systems into the municipal markets network of the capital. Dur?n emphasized the municipality’s commitment to the modernization of public spaces, particularly the bustling markets.

<<We are in talks with various companies for the installation of solar panels in our markets,>> revealed Dur?n during the Frente a Frente interview. He emphasized that introducing solar equipment into the municipal marketplaces would pave the way for <<self-sustainable energy generation.>>

Mayor Dur?n highlighted the municipality’s ongoing efforts to enhance the public markets, aiming to provide better services to the users. <<Markets represent the best opportunity for the economy and significant savings. We have invested in modernizing these spaces through cleanliness, inspections, and infrastructure improvements,>> he reiterated.

As part of their initiative, the municipality is on the verge of delivering the renovated market in the Escal?n neighborhood to the citizens. Simultaneously, plans are underway for the construction of a new market on the site of the former national library.

The move towards solar energy not only aligns with global sustainability goals but also positions San Salvador as a city committed to embracing environmentally friendly solutions. Mayor Dur?n’s vision for modernized markets not only focuses on infrastructure but also emphasizes energy efficiency, ensuring a greener and more sustainable future for the capital’s commercial hubs.