Mexico energy storage industry

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By investing in advanced energy storage technologies like batteries, Mexico can not only store excess energy generated during peak production, but also deploy it during periods of high demand or when renewable sources are not actively generating power, enhancing grid stability.

As Mexico"s generation capacity continues to increase at a pace that its transmission infrastructure cannot keep up with, the development of storage infrastructure becomes even more urgent if the Mexican electricity system is to function efficiently and reliably, agree industry experts.

Mexico has enormous potential to develop renewable energy projects. The country has high solar radiation, wind capacity, and geothermal sources. In addition, with the right technologies and expertise, the country could increase energy storage and green hydrogen projects.

Mexico doesn"t have any grid storage -- but that won"t be the case for long. A delegation from the nation"s energy leadership journeyed to San Diego this week for the Energy Storage North...

Mexico"s energy storage operations are in their nascent stage compared to more widespread developments in the U.S. and several European countries. However, we expect Mexico to develop its energy storage technologies significantly over the next decade, as well as its lithium mining industry, as it increases its renewable energy capacity as ...

According to Mexico"s Energy Transition Law (Ley de Transici?n Energ?tica) and General Climate Change Law (Ley General de Cambio Clim?tico), Mexico"s goal is 35 percent of electricity from clean energy sources by 2024, which includes power regeneration from renewable and non-renewable sources such as nuclear and efficient cogeneration.

Mexico"s National Power System Development Program (Programa de Desarrollo del Sistema El?ctrico Nacional or PRODESEN) reported a total of 340,713 GWh of power generation in 2022, from which 31.2 percent corresponded to clean energy sources (renewable and non-renewable such as nuclear and efficient cogeneration) and 68.8 percent corresponded to fossil fuels (combined cycle, conventional thermal, coal fired, gas fired, and internal combustion).

In 2022, the installed capacity of Mexico"s clean energy plants (renewable and non-renewable) was 31,369 MW, which represented an increase of 1.81 percent in comparison to the previous year, when the installed capacity of clean energy accounted for 30,812 MW. The installed capacity of renewable energy mainly came from hydro, wind, and photovoltaic solar PV plants.

According to a 2022 report by the National Renewable Energy Labs, Mexico"s large and diverse renewable

energy resource base could support significant growth in clean generation capacity. National technical potential includes 24,918 GW of solar photovoltaics, 3,669 GW of wind, 2.5 GW of conventional geothermal, and 1.2 GW of additional capacity from existing hydropower facilities --all combined, enough to meet the country"s electricity needs a hundred times over.

However, in the past three years the electrical power sector has faced several policy changes under the current administration, and those changes have altered the dynamics of the electricity market for private sector participants and have affected the confidence for future investments.

Moreover, there is a backlog of cases of companies trying to obtain power generation permits. Mexico"s Energy Regulatory Commission (Comisi?n Reguladora de Energ?a or CRE) published in Mexico"s Official Gazette (Diario Oficial de la Federaci?n) a document with the administrative provisions to present the information for power generation permits. In this document, CRE also reviews the process to apply for a power generation permit and establishes the timeline for the evaluation procedure of the application and the granting of the permit or authorization.

On May 29, 2023, the Secretariat of Energy (Secretar?a de Energ?a or SENER) published the 2023-2037 PRODESEN. This planning document is aligned with Mexico"s National Development Plan 2019-2024, and it addresses electricity generation, transmission, distribution, and commercialization needs of the National Electrical System (Sistema El?ctrico Nacional or SEN). The 2023-2037 PRODESEN emphasizes the commitment of the GOM to guarantee universal access to electricity and to contribute to the social and economic development of the country.