

My project is about demonstrating the advantages of building microgrids in the Dominican Republic to respond effectively to the increasing number of natural disasters affecting the island.

The first challenge is to provide an efficient optimization model for the operation and management of energy in island microgrids, which improves the important indicators of the microgrid in addition to supplying the load.

A notable achievement is the upcoming launch of the first four-hour energy storage system linked to a solar project, set to be operational by mid-2025. This system will participate in the spot market without a power ...

The teams jointly analysed the current technical regulations for the operation and grid connection of renewable power plants, with a particular focus on the requirements for generators and high-level ...

Finally, we identified the required steps the Dominican Republic's electrical system stakeholders should considered for improving the resilience of the electrical grid under extreme weather events, as well as other ...

Resiliency Analysis for the Development of Microgrid Architecture against Climate-Driven Events in the Dominican Republic's Electric Systems. This blog is derived from research funded by the NAS and USAID ...

Considering the support from both the Dominican government and private entities to encourage the development of renewable energy as a tool to respond to climate-related risks, this paper conducts an analysis to ...

This study aims to design and research the integrated microgrid of photovoltaic ES and charging, with the aim of achieving efficient management of microgrid resources through reasonable ...

Energy Access Explorer (EAE) and QGIS are used to synthesize and analyze over 22 geographic datasets related to demographic information, energy supply and demand, infrastructure, and climate risk indicators ...

During the project the Microgrid Research Group received 2 additional research grants, a PHD scholarship, as well as additional funding coming from a donation of private company

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