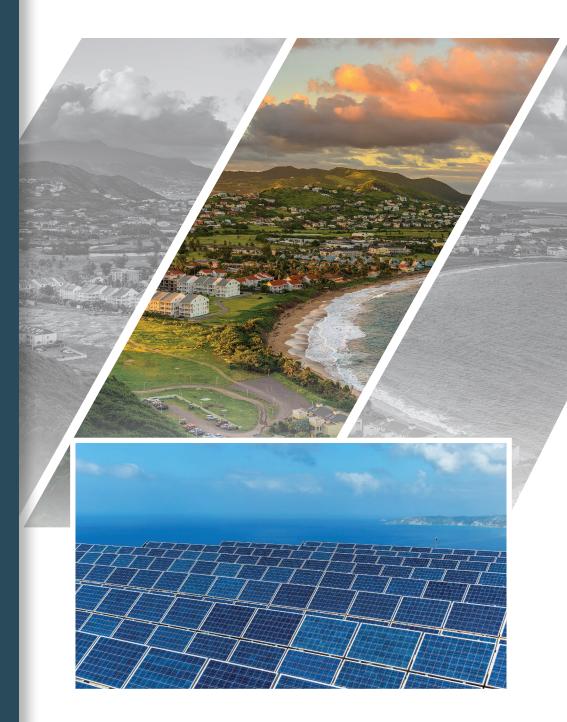


ISLAND-BASED SOLAR+STORAGE SYSTEM (35 MWp PV, 18 MW/45 MWh EESS)

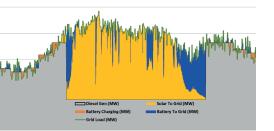
# **St. Kitts Microgrid** St Kitts & Nevis Island - 2021







# The Challenges



# The Solution



## LECLANCHÉ PPA financing

**Like many island nations**, St. Kitts is heavily reliant on diesel fuel despite having an abundance of natural resources. The dependence on electricity from diesel presents an economic challenge, as diesel is generally expensive and subject to unpredictable fluctuations in price. Meanwhile, the costs of solar, wind, and energy storage have steadily and rapidly decreased over the past several years to the point that an energy system based on these technologies has a clear economic advantage compared to traditional diesel-based electricity generation. Despite this it is frequently difficult for island nations like St. Kitts to make the transition from diesel to renewables as they face challenges with the grid instability associated with the high penetration of intermittent renewable energy.

**Leclanché** is currently building the Caribbean's largest ever Solar+ Storage project. The 35.6 MW solar energy plant and 44.2 MWh battery storage facility is being built in the Basseterre Valley on the island of St. Kitts. SKELEC, St. Kitts electricity utility, is able to make the transition from diesel to renewables in part thanks to cutting-edge technologies. The combined Solar+Storage system features advanced inverters and the Leclanché EMS to smooth out fluctuations and manage the stability of the grid. The Solar+ Storage system will provide St. Kitts with a reliable and renewable clean energy source with fixed cost savings compared to the current dieselgenerated power system. The system will provide between 25-30% of the nation's current power generation needs, while displacing the same amount of diesel-generated power. By reducing diesel fuel consumption, Leclanché and SKELEC are reducing local pollution and global carbon emissions.

**A second challenge** for island-based renewable energy projects is that the capital required to update electricity infrastructure is often prohibitively high. This makes project finance a critical, and often unavailable, element to implementing a project. In the case of St. Kitts, Leclanché and SKELEC signed a 20-year PPA in order to finance the project. With a PPA in place, Leclanché was able to eliminate the need for any upfront capital investment by St. Kitts. Leclanché and its financial partners own the solar+ storage system and sell energy and battery capacity to SKELEC at an agreed upon, predictable price for the life of the project. Leclanché's ability to provide its customers with PPA project financing opens up the benefits of clean renewable energy to customers across the Caribbean and elsewhere.





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### WE ARE ENABLING THE ENERGY TRANSITION



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