The EDF Renewable Energy – groSolar team (the EDF RE Team) brings together a thorough understanding of energy storage in local markets, with the global procurement and financial wherewithal of an international energy company. The EDF Group has installed more than 300 MW (824 MWh) of energy storage projects worldwide. In North America, EDF RE has developed 9 GW of renewable energy projects.

As a subsidiary of one of the largest energy companies in the world, EDF RE functions as a single interface to provide comprehensive turnkey energy storage solutions that include EDF Store & Forecast’s PEGASE Energy Management System (PEGASE EMS™) and self-contained battery units.

PEGASE EMS™ is an adaptable software developed by EDF with instantaneous response times that can be configured for multiple applications, in front of and behind the meter, benefitting both the load serving entity and its customers. The control system is flexible enough to interface with batteries of any size and any technology to ensure a customized solution. Working with a single team through all stages of the project including origination, simulation, design, construction, and operation and maintenance ensures implementation of a high performance system that is tailored to the customer.

Load Serving Entity Applications
Energy storage systems can address multiple high value applications that are managed simultaneously.

- **SOLAR FIRMING**: Equipped with a Sky Eye and meteorological station, the PEGASE EMS™ receives weather information and satellite images, which it uses to forecast and control the system to reduce PV generation volatility.

- **PEAK SHAVING**: After analyzing a load profile, the PEGASE EMS™ optimizes the operation of the solar and energy storage solution to reduce peaks in demand and shift load to off peak periods.

- **FREQUENCY REGULATION**: With the ability to respond to signals in less than one second, the energy storage system provides market leading frequency regulation, as demonstrated by the performance of the 20 MW McHenry Storage Project.

- **T&D DEFERRAL**: Implementing excess capacity in high load zones avoids capital intensive transmission and distribution upgrades for the utility.

Customer Applications
Energy storage solutions can also be installed behind the customer meter and controlled by the utility to add additional value. Projects are designed to impart energy resiliency and other benefits to the customer while still providing the utility with benefits such as frequency regulation, T&D deferral, and load shifting.

- **DEMAND RESPONSE**: Energy storage systems that respond to utility signals for emergency demand response provide additional stability to the grid and improve power quality.

- **ENERGY SECURITY**: Energy storage systems provide seamless back up for critical assets during periods of grid instability or blackout. The PEGASE EMS™ senses instability and initiates a backup sequence prior to a blackout.

EDF Renewable Energy is a subsidiary of EDF Energies Nouvelles. EDF Energies Nouvelles is the renewable energy arm of the EDF group.
EDF ADDS VALUE THROUGHOUT THE PROJECT LIFECYCLE

Working with the EDF RE Team on an energy storage solution and energy management system from design through system installation, commissioning, and operation & maintenance, will ensure high value solution for the load serving entity and its customers.

ORIGINATION
Comprehensive analysis to identify and evaluate the potential of prospective energy storage and solar sites and applications

DEVELOPMENT
Permitting, load analysis, operational simulation, optimization and design, and technology selections

TRANSACTION
Finalize transaction structure, EDF RE internal financing team can close financing

CONSTRUCTION
Turnkey implementation of the comprehensive energy storage system and a high quality build leveraging groSolar EPC capabilities

OPERATIONS & MAINTENANCE
Asset management, monitoring, and maintenance over the long term to ensure profitable and peak performance

ADDING VALUE BEHIND THE METER

The EDF RE Team also supports the process of designing and optimizing energy storage solutions that provide additional value to the utility and its customer from behind the meter. During the origination phase, the EDF RE Team engages the customer to tailor the project to a unique set of operating requirements.

WHATS NEXT?

Clearly defining the energy storage application is critical and will impact system design and selection of technology. Talk to the EDF RE Team about your unique set of requirements and we’ll work with you to define the appropriate type of system for you.

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