Mount Sinai-Corum Energy Storage Project Proposal

Corina Solis 5/6/2024



Agenda

- New Leaf Energy Introduction
- Energy storage system overview
- Energy storage system safety
- Proposed project for Mt Sinai



ABOUT US New Leaf Energy

New Leaf Energy establishes important partnerships with landowners, utilities, and local communities to brainstorm, secure, design and permit community and utility-scale renewable energy, as well as energy storage projects. The final steps conclude with the sale of each project to long-term asset owners. New Leaf Energy's goal is to ensure a smooth transition throughout the entire process. Together with community partners, the New Leaf Energy team works hard to accelerate the adoption of renewable energy to decarbonize our communities one project at a time.

For more information, visit



1.4 Gigawatts of solar developed

3.6 Gigawatt solar pipeline



575 Megawatts of energy storage developed

14 Gigawatt-hour energy storage pipeline



#1 Developer in Massachusetts, New York, and Maine



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Energy storage systems are an essential component of a modern, resilient, and decarbonized grid. And as we pursue our mission to accelerate the transition to a world powered by renewable energy, developing safe, reliable, and effective energy storage systems is an absolute priority.

New Leaf Energy also takes the safety of residents near our projects very seriously, which is why our multi-layered approach to designing and developing energy storage systems puts safety at the center of every decision.



The Benefits of Energy Storage: Grid Stability Renewable Energy Integration Grid Modernization

Energy storage systems match electricity generation to electricity needs.

Energy storage systems are groups of large-scale battery units that store and release electricity on demand. They provide "storage" just like the trunk of your car, or a shelf in your refrigerator: electricity not needed at the moment is "placed on the shelf" (into a battery) and retrieved when needed.

Our energy storage systems connect to existing electric lines. The batteries charge from the utility grid and store excess electricity. When needed, they can release power onto the grid during times of high electricity usage, such as during the summer months when lots of homes and businesses need to run their AC on high all day.



Energy storage will enable high renewable energy generation on the grid.

Energy supply and demand don't always match up.

Batteries help even out the inevitable discrepancies by providing consistent and stable electricity for homes and businesses.

NY State Energy Storage Target:

3,000 MW by 2030 (by law)

Gov. Hochul's goal:

6,000 MW by 2030





Energy storage is able to rapidly respond to the grid's needs, increasing reliability, and reducing dependency on older, dirtier, and slower power plants.

A 20 MW, 4-hour energy storage facility is capable of storing up to 80 megawatt hours (MWh) of energy. That amount of power can power approximately 16,000 single-family homes.



Energy Storage Safety

Energy storage systems are safe and highly regulated.

- Energy storage battery fires are decreasing as a percentage of deployments. Cell failure rates are extremely low, and safety features in today's designs further reduce the probability of fires.
- No deaths have resulted from energy storage facilities in the United States. Battery energy storage facilities are very different from consumer electronics, with secure, highly regulated electric infrastructure that use robust codes and standards to guide and maintain safety.
- Past incidents demonstrate that fires are contained within the facility, and air quality in neighboring areas remains at safe levels.



Battery safety architecture





Remote Battery Management System

Units are remotely monitored to ensure the temperature and other key metrics of the system are within healthy limits.

Thermal Management System



Systems are equipped with fire suppression,

was not shut down prior to an event, onsite response solutions remedy the situation.

Energy Storage Systems are required to fail safety.

Multiple levels of safety testing is required through a Nationally-Recognized Testing Lab

System will not explode or create explosion hazards. Fire does not spread to adjacent units. Do not release exotic toxic gases.

- UL 1642: Cell Listing
- UL 1973: Module Listing
- UL 9540: System Listing
- UL 9540A: Large-Scale Fire Testing (Safety Validation)
- UL 1741: Inverter Listing







Energy storage systems follow stringent safety measures.

System will comply with the requirements in development by NYS Interagency Fire Safety Working Group

Measures include:

- Fire alarm and detection
- Remote monitoring and communication
- Passive ventilation
- Emergency response team
- Regular emergency response trainings for local FD
- Third-party UL testing and certification



Proposed Mt. Sinai-Corum Energy Storage Project

Mount Sinai-Corum Project Overview

20 MW / 80 MWh

(24) Tesla Megapack 2XL containers

approx. 40,000 sqft

Status:

PSEG interconnection studies complete

Initial zoning change application submitted

Operations projected Summer 2027





North-facing view from NY 25-A





West-facing view from Mount Sinai-Corum Road



Project Site Plan





Tesla Megapack Cabinets





A land dedication for a western turning lane going south from Mt. Sinai-Corum Road

PILOT (approx. \$10,000/year per project)

Community Benefit Agreement in place of School District PILOT

Mature plantings and disguised vehicle protection set back ~40ft from the street



Thank you.

ENERGY STORAGE