

Career High School Microgrid – New Haven BESS Project Overview

Connecticut's first utility-scale battery energy storage system (BESS) at Hill Regional Career High School will deliver clean energy and resilience to the community.

- 2.5 MW battery storage system providing:
 - 16+ hours of backup power for the school
 - 4+ hours for 160+ nearby homes and businesses
- Supports CT's 1,000 MW energy storage goal by 2030
- Advanced suppression, real-time monitoring, emergency access, NFPA compliance and NHFD training



Why Career High School?

- **Emergency Shelter** – Reliable backup power for critical city shelter
- **Environmental Justice** – Located in a designated EJ community & top 10 critical facility
- **Infrastructure Ready** – Existing solar, CHP and transformer capacity
- **Educational** – Hands-on STEM experiences in energy and sustainability paired with opportunities for student created art to enhance aesthetics.



Community Benefits

- **Resilience** – Prevents outages – could have avoided 98.7% of past outages on Circuit 1526
- **Cleaner Air** – Avoids 59 tons CO₂ and 0.05 tons NO_x emissions
- **Economic Value**
 - Avoids costly poles and wires upgrades
 - Assets are taxable by the city; easement agreement
 - Store low-cost energy and discharge during peak hours to cut electricity costs



Safety & Siting

- **Fire safety** – Will be designed with the latest safety standards, including advanced fire suppression systems and optimized emergency access protocols
- **Space Needs** – 3,500 to 7,000 sq. ft. with 10 ft setbacks from lot lines, rights-of-way, and buildings.
- **Proposed Site** - BOE greenspace south of the school – no parking loss
- **Access & Security** - Secure fenced enclosure with controlled gate (optional cameras and lighting)

Preliminary Construction Schedule

- Existing solar and CHP equipment must be evaluated and integrated with the battery system; potential need for re-wiring or a new transformer will be determined during engineering design.
- In Service Date: October 2027
- Construction Start in June 2027
- Construction Completed in September 2027



Bronx, NY Project

Conceptual Imagery