# Spence School

## Spence School
### New York, NY

The Spence School is a private K-12 school for girls and has two facilities on East 91st and 93rd Streets. There are over 650 students from Manhattan, Brooklyn, Queens, Long Island, Connecticut, and New Jersey. The school enrolled in Demand Response to conserve and monitor energy, and to help protect New Yorkers from blackouts.

Demand Response means temporarily reducing electric use the few times a year when the electric grid is most stressed. Facilities receive a monthly payment in exchange for commitment to reduce demand when the NYISO, the group that administers the electric grid, requests assistance. Spence School worked with Ace Energy to provide and install equipment to remotely control the buildings, Energy Curtailment Specialists (ECS) to enroll Spence School in Demand Response programs, and NYSERDA's Peak-Load Reduction Program for financial assistance and help determining energy curtailment potential. Gordon Jensen, Director of Facilities & Safety, states "With the incentives that NYSERDA provided it allowed us to take our energy conservation to the next level. It helps us to do our part in reducing our carbon footprint."

### Actions

Ace installed interval meters at both buildings so instantaneous electric use can be viewed. Chiller compressors, pumps, and fans throughout the buildings were connected to the Building Management System (BMS). Osram Sylvania's Load Shedding Ballasts were installed on fluorescent lighting fixtures and linked to the BMS, allowing Spence School to cost-effectively reduce light energy use and output by 30% when desired. "The success of this project shows the huge potential of our new Demand Response Platform. This technology will not only reduce Spence School's energy cost but will make the world a greener, more energy-smart place." said Stephen Lynch, President of ACE Energy Company, Inc.


Founded in 2001 in response to electric reliability concerns, ECS is a full service demand response provider assisting New York State in avoiding blackouts.

### Incentives and Results

At the click of a button on a laptop or mobile phone, Spence School will be able to temporarily reduce its demand by 261 kW during emergency grid events. To help demonstrate the innovative approach and advanced technology, NYSERDA issued an incentive of $45,000 to fund the upgrade to the existing Building Management System. The project provided Spence with positive revenue the first month after it was installed.

NYSERDA's Peak-Load Reduction Program facilitates energy efficiency and demand response in order to displace the need for new power generation by providing incentives to end users pursuing energy conservation. Projects like the Spence School have proven to be a cost-effective alternative to building new power plants.

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12-07