PROJECT PROFILE

Market: Commercial
Type: Office
Location: Manhattan, NY

STARRETT LEHIGH: SMART CONTROLS ON A LARGE SCALE

PROJECT SCOPE & SPECS

Developer / Owner:	RXR Realty
Consultant:	Sentient Buildings
Project Services:	Energy Reduction Plan
Building Size:	19 Stories; 2.3 Million Sq. Ft.
Incentive Programs:	NYSERDA
Primary Energy Conservation Measures:	Building Automation System (BAS); Radiator Valve Control System

Starrett Lehigh is the eighth largest office building in NYC at over 2.3 million square feet. A pre-war building constructed in 1931, the building is heated by steam radiators fed by two-pipe steam distribution. Tenants provide their own water-cooled package units, connected to central plant cooling towers. In 2012, the base building controls were unfortunately destroyed by Hurricane Sandy, but it created the opportunity for new solutions.

In 2014, Sentient Buildings specified and designed a new steam valve control system providing digital thermostats, powered by ambient light, that control over 400 radiators and feeder valves located throughout the building. The solution allows these valves to be controlled locally in standalone mode via a local thermostat/sensor and in networked mode through the Building Automation System (BAS). The system enables full control of perimeter heating and boiler plant operation along with control and monitoring capabilities for the tenant cooling units, cooling towers, sump pump pits, and sand pillars at the site.

Awarded one of the largest rebates by NYSERDA for a commercial building project, Starrett Lehigh featured the first large scale EnOcean network in NYC. The innovative new BAS and wireless radiator valve controls enable the building owner to monitor and control all heating and cooling plant operations from a central web-based location. The system features a reporting and alerting interface for building operators to identify and resolve operational issues with the mechanical systems as they arise.

Starrett Lehigh achieved annual energy savings of over 20% and improved the comfort of its tenants as a result of these upgrades.