EN-POWER GROUP | Case Study

Rebates Bring Expensive Efficiency Improvement Projects to Reality

Prestigious university receives over $1 Million in rebates for new chillers

Educational

Property Profile

- Location: Upper West Side, Manhattan
- Campus Size: 32 Acres
- Buildings: 34
- Dates of Construction: 1885-2010

Services

- Rebates & Incentives
- Feasibility Study
- Demand Response
- Mechanical System (HVAC): Cooling

Project Achievements

- Annual Utility Savings: 4.737,000 kWh
- Annual Utility Cost Savings: $796,000
- Demand Saved: 1,800 kW Total
- Eligible Rebates: $1,126,000 Total
- Project Cost after Rebates: $15,374,000

Project Highlight

Identified and applied to four rebate programs to maximize project payback

As a campus with state of the art research facilities and a large student body, this Manhattan-based Ivy League institution requires extensive cooling. The large cooling load incurs high utility bills, particularly high peak demand costs during the summertime. EN-POWER GROUP was engaged to identify energy efficiency and demand reduction strategies for the campus's central chiller plants. The selected strategy not only successfully qualified over $1 Million in rebates, but continues to save the school almost $800,000 in utility costs each year.

The university's main campus has large cooling requirements due to the year round computing, laboratory, and classroom demands within its thirty-four (34) buildings. To combat increasing cooling costs, EN-POWER GROUP was engaged to identify methods of realistically reducing cooling costs despite the university's projected load growth. Following a thorough feasibility study of the existing equipment and energy usage, EN-POWER GROUP recommended consolidating chilled water production to one plant and retiring inefficient equipment by installing a hybrid chilled water plant, which primarily consists of: a 2,800-ton electric chiller with variable frequency drives and a 2,800-ton steam driven chiller. EN-POWER GROUP designed the sequence of operation to optimize demand and electricity savings.

EN-POWER GROUP created and implemented a comprehensive rebate application plan that incorporated funding from four distinct programs. The project successfully received funding from the NYISO Installed Capacity/Special Case Resources (ICAP/SCR) Program, the NYSERDA Existing Facilities Program, the NYSERDA Peak Load Management Program (PLMP), and the NYESRDA Enhanced Commercial and Industrial Performance Program (ECIPP).