

CASE STUDY

Lincoln Center for the Performing Arts Energy Management



SCOPE

As part of a continuing effort to identify opportunities for increased energy efficiency through operational and infrastructure improvements, Edison Energy was contracted by Lincoln Center for the Performing Arts (LCPA) to conduct Energy Management Services (inclusive of an ASHRAE Level II Energy Audit in parallel with building-wide Retro-Commissioning (RCx)).

From the project's outset, Edison Energy's focus was always two-pronged; first to identify operational efficiency opportunities that leveraged the existing HVAC and control system operational improvements (OPEX - Operational Expenditure Savings) and second to propose capital-based engineering opportunities (CAPEX - Capital Expenditure Optimization), both of which would minimize the energy cost expenditures for the Lincoln Center facilities, improve the indoor air quality, reduce unnecessary maintenance expenditures as well as improve overall efficiency and effectiveness of the operation of the facility, all contributing to achieve their energy efficiency and sustainability goals.

Other miscellaneous aspects of the building facilities were included in this scope of work, such as building envelope, fenestration, plug load uses, process loads, conveyance, lighting and others. Edison Energy also conducted several building operator interviews throughout the facilities. For the most part, these interviews revealed a proficient operations team with an overall proactive approach to saving energy while maintaining optimum occupancy comfort.

PROJECT RESULTS & KEY METRICS:

Campus Size:	16.3 acres
Capital ECMs Identified:	50
Retro-Cx O&M Measures Identified:	12
Annual Utility Expense Savings:	\$1,400,000
Reduction in Annual Utility Costs:	17%
Annual kWh Savings:	4,000,000
Annual Mlbs Savings:	11,000
Annual ton-hours Savings:	800,00
Payback Period:	< 5 years

CLIENT

Lincoln Center

MARKET

Commercial

OFFERINGS

Energy Management
(Energy Auditing and Retro-Commissioning)



CUSTOMER VALUE

Edison Energy identified and analyzed a number of potential Energy Conservation Measures (ECMs), both Capital measures as well as O&M measures. There were over 50 Capital ECMs and almost a dozen bucketed retro-commissioning O&M measures identified for implementation, impacting electric, steam and water consumption. Execution of all of the recommended capital and retro-commissioning ECMs could potentially reduce annual utility expenses by almost \$1.4 million annually, equating to a reduction in annual utility costs of over 17% as compared to the baseline 2013 utility totals. Implementation is projected to result in an estimated annual reduction of site electricity consumption by nearly 4 million kWh, steam consumption of over 11,000 Mlbs, and chilled water consumption by over 800,000 ton-hours annually while maintaining an anticipated payback period of under 5 years.

A SUSTAINABLE CAMPUS

In addition to fulfilling Local Law 87 Requirements set forth by the scope of work, the LCPA team was also able to implement a variety notable corporate projects to further encompass LCPA's energy management goals. One these projects included the purchase of 100% wind energy to supply to 8 facilities on the campus. By replacing fossil fuels with renewable energy, LCPA will reduce CO2 emissions by more than 100 million pounds over a three year period. In addition to wind energy, LCPA also invested in solar solutions to help meet their energy management goals through the installation of a Rooftop Solar Array on the Rose Building.

Edison Energy, an independent advisory and services company, recognizes energy is the largest unaddressed risk faced by most companies, and can exceed foreign currency, interest rate and other operational risks. Providing advanced analytic capabilities, we create competitive advantage for global market leaders by quantifying this risk and designing the portfolio solution to protect shareholder value threatened by complex energy policies, technological advancements and new products.

Lincoln Center for the
Performing Arts

WINNER

of the Association of Energy Engineers
(AEE) 2018 Corporate Energy
Management (Region 1) Award