NEW YORK NYSERDA

Daylight Savings Company is Schooling Clients on Energy Savings

Case Study

FlexTech Consultant: Daylight Savings Company

Location: Long Island, NY

Sector: College/University

Building Square Footage: 214,724

Annual Cost Savings: \$122,341

Annual Electricity Savings 554,370 kWh

Annual Gas Savings: **5,147 MMBtu**



The Bottom Line

Through New York Power Authority's (NYPA's) Statewide Energy Efficiency Program, Daylight Savings completed an energy study on two college campus buildings and discovered opportunities to:

- Reduce energy use by over 10%
- Save the university over \$100,000 in annual utility costs
- Reduce maintenance related costs
- Improve occupant comfort

The university was so satisfied with the energy study results, they decided to work with Daylight Savings to implement all recommended measures, which once installed, can be completely paid back in less than 4 years.

The motivation for Daylight Savings' client, a university in Long Island, was to meet the provisions of New York's Executive Order 88, which requires state facilities to reduce energy consumption 20% by 2020. In addition to compliance requirements, the university was motivated to reduce their energy usage and energy costs through the implementation of cost-effective energy efficiency measures.

Background

A comprehensive energy study of building equipment and energy use was conducted, which concluded that retro-commissioning was an economically viable measure for reducing energy consumption at the two buildings covered within the project scope.

Retro-commissioning is a systematic process for investigating, analyzing, and optimizing the performance of targeted building systems through operation and maintenance improvements. Daylight savings observed equipment to identify deficiencies and building systems requiring further investigation.

Energy Savings Summary

| Measure Description | Electric Savings (kWh) | Gas Savings (MMBtu) | Annual Cost Savings |
|------------------------|------------------------|---------------------|---------------------|
| Equipment Controls | 536,527 | 4,900 | \$113,400 |
| Equipment Optimization | 17,843 | 247 | \$8,941 |
| Total | 554,370 | 5,147 | \$122,341 |

The Daylight **Savings Company** has been providing high-quality energy efficiency services thoroughly vetted by established institutions since 1991. The company's longevity and multiyear contracts with NYSERDA are a testament to its long-term approach, professionalism, and competency.



NYSERDA-Approved FlexTech Consultant



Daylight Savings calibrated system components and conducted system tests to confirm if they are operating correctly, failing, or operating deficiently. Testing results provided insight to recommendations that are of most need, and those that could produce the most savings. Daylight Savings ensured staff was trained on proper system operation and provided the university with detailed next steps, implementation costs and potential energy savings for each recommendation.

Recommendations

Numerous energy and cost saving opportunities were identified as a result of Daylight Savings' study. Recommendations focused on equipment controls and optimization, which when implemented, will result in the facility operating as efficiently as it was intended to. Some recommendations specific to this facility were:

- Install new thermostats and occupancy sensitive thermostat controls
- Optimize thermostat setpoints and scheduling
- Install and tune motors on equipment to reduce pump operating hours
- Perform functional testing and balancing on HVAC units

Taking Action

The university decided to implement all recommended measures, and Daylight Savings is currently managing this process. By focusing on client needs, feasibility, and improving existing systems, Daylight Savings was able to help the university achieve significant energy savings while staying within their budget.

NYSERDA FlexTech Consultants

FlexTech Consultants are contracted by NYSERDA to provide expert, objective, and customized technical services to inform clean energy management and investment decisions. FlexTech Consultants can help customers set energy performance goals, identify savings opportunities, and prioritize those opportunities to achieve the greatest benefit. Because they provide customized technical assistance, they work with customers to help them achieve specific, individualized goals based on identified needs.

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