

CSU Northridge Lighting Retrofit Saves 400,000 kWh Annually, Improves Campus Safety, and Helps Secure Additional LED Upgrade Project

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Energy

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Written By Los Angeles Better Buildings Challenge

LABBC CASE STUDY

PROPERTY OWNER

CSU Northridge

PROPERTY TYPE

Public

SQUARE FEET

7,362,074

Sponsoring Organizations

17%

Energy Reduction in 2019

0.4M kWh

Cumulative Energy Reduction

2020 Innovation Awards: Walk the Walk Energy Finalist

“The lesson learned on this project is to take advantage of any and all incentives or rebates through your utility while they are available...they may have enough impact [to] make a project that may not have been financially viable, worth doing.”

AUSTIN ERIKSSON

Director of Energy and Sustainability, CSU Northridge

CHALLENGE

Sustainability is at the forefront of campus priorities at California State University Northridge (CSUN), as outlined in its Sustainability and Climate Action plans, and demonstrated thru extensive multi-year initiatives to implement campus-wide energy and water conservation projects.

In pursuit of exploring further opportunities to save energy and improve the quality of life and safety of staff and students on campus, CSUN identified various parking structures and walkways that were expending energy yet not serving optimal visibility, especially at night.

In order to pursue the parking structure and walkway efficiency projects, CSUN had to develop a plan that addressed the challenges of securing sufficient budget and scheduling all work during off hours to avoid any student disruption.

STRATEGY

In collaboration with internal campus partners, energy management, and parking and transportation services, CSUN commissioned Optima Energy to propose a strategy for the parking structure lighting retrofits. Optima's recommended strategy utilized LADWP incentives to cover the cost of the entire project, making the project easy to approve financially.

Further improving the financial case for these projects, campus electricians accomplished the walkway lighting project by using the campus's existing energy conservation measures budget. In order to address scheduling challenges, both projects were designed to be completed during nights, weekends, and holiday breaks.

By taking advantage of the CSUN's resources on-campus (including their electric shop) and off-campus resources (Optima Energy and LADWP), the projects were successful and holistically addressed issues of sustainability and safety, cost-effectively.

IMPACT

CSUN's parking structure and walkway lighting projects are projected to save over 400,000 kWh and \$65,000 in energy costs annually. Specifically, the two parking structures together achieved 59 percent savings in electricity, and the walkway lights resulted in a 77 percent reduction in per fixture.

Due to the success of these projects, CSUN has secured funding for a four-year campus-wide LED lighting upgrade project that will result in over 19,500 MTeCO₂ and \$7,000,000 saved over a 10-year period. Thirty-one buildings will be retrofitted as part of this project, which furthers CSUN's objective to continuously build on past progress and significantly reduce campus energy usage and costs.

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