



UCF's Winning Strategy

From the large pool of extremely talented competitors, the University of Central Florida captured first place by reducing the energy use of Parking Garage C on its main campus by more than 63 percent. The energy efficiency improvements achieved by UCF demonstrate that significant opportunities exist to save energy in structures that are largely unoccupied, such as parking garages and warehouses. These facilities individually may not use a great deal of energy and may not present the same challenges as occupied buildings, but they are significant because of the sheer number of these facilities and their associated carbon emissions. UCF's work with their main campus parking structure is an excellent reminder that these buildings should not be forgotten in our efforts to save energy and reduce greenhouse gas emissions.

The University of Central Florida approached the improvements to Parking Garage C by first tackling the interior and then, in a second phase, focusing on the exterior of the structure. For the interior, high performance T-5 Fluorescent lights were installed in place of the existing 150 watt HPS fixtures. The installation of all 424 fixtures was completed over a four week period during non-peak hours to avoid disrupting daily parking guests.

During Phase II, the top deck of the garage was retrofitted with 16 Cooper LED 236 watt lights in place of the existing 400 watt HPS fixtures. Ultimately, the lighting retrofit not only yielded significant energy savings and reduced the lighting bill by more than half, but also provided better visibility for the UCF community and visitors.

Preliminary analyses indicate a payback period of about two years for UCF's lighting upgrade project.

UCF's efforts during the competition went beyond the main campus parking facility to include an aggressive building scheduling initiative. After occupancy hours, only emergency lighting and base level HVAC will be utilized in buildings. The scope of this initiative is intended to become campus-wide, with the exception of research buildings. The implementation of this initiative has already begun in the Facilities and Safety Building, Classroom I Building, Colburn Hall, and at the UCF Welcome Center.

The University of Central Florida has also been commissioning several of its existing buildings on campus, including auxiliary facilities, like the Recreation and Wellness Center and UCF Football Stadium, to increase overall operating efficiency. Currently, a building automation retrofit is taking place at the Central Energy Plant (CEP) to increase district energy efficiency.

