

CKE Restaurants Serves Up Savings

CKE Restaurant Holdings, Inc., which owns the Carl's Jr., Hardee's, Green Burrito, and Red Burrito restaurant brands, was recently recognized in three categories for excellence and leadership in interior lighting by the Interior Lighting Campaign.

- **Largest Number of Facility Projects:** across the Carpinteria, California based company, CKE has been recognized for replacing 5,650 troffers at 157 facilities for annual energy savings of 1.9 million kWh. Existing 96-Watt (W) or 128-W fluorescent luminaires were replaced with 45-W or 49-W LED luminaires for an average savings of 53 percent.
- **Highest Absolute Annual Savings for Troffer Lighting Retrofits – Small Project:** At its Castaic, California, Carl's Jr., CKE replaced 21 troffers with GE LED luminaires to cut energy use from 24,000 kWh to 9,000 kWh for a savings of 62 percent.
- **Highest Percentage of Annual Savings for Troffer Lighting Retrofits – Small Project:** At its Danridge, Tennessee, Hardee's, five troffers were retrofit with 49-W Columbia Lighting LED luminaires, reducing annual energy use from 3,200 kWh to 1,200 kWh, for a savings of 64 percent.

Keys to Success

CKE is dedicated to managing business profitably through environmental responsibility and waste reduction.

When an influx of capital became available, CKE executives looked for projects that offered solid paybacks, and LED lighting retrofits met the criteria. Advances in LED technology and recent positive experiences with LEDs helped the CKE project staff make the business case for LED lighting. Upper management could see the benefits of LED lights such as energy cost savings, improved efficiency and long life.



CKE staff felt the brighter LED lighting enhanced the appearance of kitchens and dining rooms, providing a more inviting atmosphere. Image courtesy of CKE Restaurant Holdings, Inc.



CKE serves up energy savings of up to 64%. Image courtesy of CKE Restaurant Holdings, Inc.

Interior Lighting Overall Results

Energy Savings	1.9 million kWh annually, an average savings of 53%
Troffers Upgraded	5,650
Total Area of Project	Corporate-wide, 471,000 ft ² , 157 buildings
Payback	3-5 years (varies by location)
ILC Recognition Category	Largest Number of Facility Projects

“Beside energy savings, the lighting project had the added value of improving the look of our restaurants.”

— Juliann Rogers,
CKE Director of Energy

Project Methodology

CKE's projects included interior and exterior lighting retrofits, and some locations received an additional energy management system upgrade. Locations with lighting-only retrofits realized an 11 percent average reduction to their overall energy costs. Locations with both averaged a 17 percent reduction.

Payback calculations included the incentives, rebates, and estimated maintenance savings. The payback varied from three to five years depending on location.

Although energy cost savings and demand reduction were primary drivers, the 1-for-1 retrofit increased the perceived brightness of levels in the restaurants. Operators at retrofit locations felt their night sales increased. "Besides energy savings, the lighting project had the added value of improving the look of our restaurants," said Juliann Rogers, director of energy for CKE. "We expected light levels to improve, but the transformation was beyond our expectations."

2016 ILC Recognition for Troffer Lighting Retrofit Savings (Small Project)

Location	Carl's Jr., Castiac, CA	Hardee's, Danridge, TN
Troffers Upgraded	21	5
Energy Savings	15,000 kWh	64%
ILC Recognition Category	Highest Absolute Annual Savings	Highest % Annual Savings

Tips and Best Practices

- ▶ Spend time in the planning phase. Accurately assess lighting needs by doing site audits. A variety of luminaire types and sizes means there is no one-size-fits-all replacement.
- ▶ Look for opportunities to redesign lighting layout and reduce luminaire counts for additional savings.
- ▶ When managing multiple projects across several states, work with one or two large-scale vendors who can maintain inventory and can help streamline the procurement process.
- ▶ Use a turnkey approach with a single source for products and installations.
- ▶ A third-party contractor is helpful in obtaining utility incentives across several locations.
- ▶ Create a clear scope of work with detailed instructions for installers.

Learn More

Through the [Better Buildings Alliance](#), members across different market sectors work with the U.S. Department of Energy's (DOE) exceptional network of research and technical experts to develop and deploy innovative, cost-effective, energy-saving solutions that lead to better technologies, more profitable businesses and better buildings in which we work, shop, eat, stay and learn.

Learn more about how to join the Better Buildings Alliance's Interior Lighting Campaign (ILC) at <https://interiorlightingcampaign.org/>. The ILC is a recognition and guidance program designed to help facility owners and managers take advantage of savings opportunities from high-efficiency interior lighting solutions. As of January 2017, ILC participants are collectively saving close to \$13 million annually across approximately 95 million square feet by upgrading to high-efficiency interior lighting solutions.

Find more resources and guidance on lighting in the [Better Buildings Solution Center](#).