



SHOWCASE PROJECT: WENDY'S: MOBILE, ALABAMA

SOLUTION OVERVIEW

The Wendco Group was a prominent franchisee of The Wendy's Company with 43 restaurants serving south Alabama and northwest Florida, totaling 129,000 square feet. In 2018, the Wendco Group's restaurants were purchased by Carlisle Corp, another Wendy's franchise organization that also participates in the Better Buildings Challenge. Before the change in ownership, Wendco Group had pursued aggressive strategies for reducing energy use across its building portfolio, including preventative equipment maintenance, strategic energy upgrades, and the installation of high energy efficiency equipment. The Wendy's Company was one of the first restaurant companies to join the Better Buildings Challenge, and Wendco Group was the first franchise organization in the restaurant industry to also join the Challenge.

In May 2015, seeking to further its energy efficiency efforts, the Wendco Group incorporated a new ultra-high efficiency HVAC system and new hood system into their planned reconstruction of one of their restaurants in Mobile, Alabama. Since opening in September 2015, the restaurant achieved remarkable energy reduction and increased sales, with energy use per transaction falling by more than 50 percent. Overall energy savings for the project were \$11,500 compared to the 2013 baseline, despite an 18 percent increase in electric utility rates.

SECTOR TYPE

Commercial

LOCATION

Mobile, Alabama

PROJECT SIZE

3,360 square feet

FINANCIAL OVERVIEW

Incremental \$3,000 in HVAC costs over previous HVAC design

SOLUTIONS

The reconstructed restaurant incorporates exterior LED lights, all-LED interior lights, LED signs, along with the ultra-high efficiency HVAC system, and a new energy efficient commercial kitchen hood. The Wendy's Company previously identified HVAC as one of the largest energy consuming

systems in a restaurant. Wendy's commissioned a cross-functional team, including members of Wendy's energy team and third-party suppliers, to develop evaluate and update the HVAC system. After assessing the existing HVAC systems and kitchen hoods across the Wendy's portfolio, the team recommended new hoods that would require 29 percent less ventilation with equivalent or better functionality, and new rooftop units (RTUs) with variable speed compressors and fans with an IEER of 20. The new RTUs eliminate the need for a dedicated make-up air unit, thereby offsetting the higher costs of the ultra-high efficiency HVAC units.

The Wendco Group volunteered their Airport Blvd restaurant as a pilot location to validate the efficiency of the new HVAC system. A nearby Wendy's restaurant in Mobile served as a control, as it was also demolished and rebuilt in 2015, but used the 3-HVAC-unit design with a dedicated makeup air unit. The ultra-high efficiency HVAC system installed at the test Mobile location was one of the main drivers of efficiency for this restaurant, using 14 percent less energy than the control restaurant in the first year.

The energy-efficiency measures implemented at this location include:

- Exterior LED lights and signage
- All-LED interior lights
- Ultra-high efficiency HVAC (IEER 20)
- Energy-efficient kitchen equipment
- Lower ventilation rate (29 percent reduction) with new restaurant design

These solutions resulted in a 33 percent reduction in EUI, and a 60 percent reduction in energy per transaction after the reconstruction.

OTHER BENEFITS

The new HVAC system is performing extremely well and providing customer and crew comfort in a humid climate while saving energy. With demonstrated energy and cost savings from this test, The Wendy's Company retrofitted other Wendy's locations and made efficient RTUs a standard for new Wendy's company-operated and franchise locations moving forward.

Annual Energy Use

Baseline(2013)
547 kBtu/sq. ft.

Actual(2015-2016)
378 kBtu/sq. ft.

Energy Savings

33%

Annual Energy Cost

BaselineElectric
Cost(2013)
\$52,400

ActualElectric
Cost(2015-2016)
\$40,900

Cost Savings

\$11,500



The restaurant in Mobile, AL before reconstruction



The restaurant in Mobile, AL after 2015 reconstruction