



Energy Savings at McDonald's

OVERVIEW

McDonald's provides eco-friendly restaurants reflecting their sustainability goals and demonstrating their efforts toward reducing their electric consumption and lowering their CO₂ footprint. Some of their restaurants green attributes include energy efficiency equipment and eco-friendly technologies. A typical McDonald's restaurant includes lighting in seating, kitchen and storage areas and electric appliances such as HVAC systems, refrigerators and freezers, electric ovens, microwaves and coffee machines with total electricity consumption of 16,000–28,000 KWh per month.

SOLUTION

McDonald's chose to implement PowerSines universal energy efficiency controller for commercial applications (ComEC). ComEC dynamically controls and stabilizes the voltage provided to all loads, ensuring the supply of the right voltage level, day or night, and generating immediate energy savings of up to 18%. In addition, by stabilizing and controlling the voltage, ComEC improves power quality, preventing equipment failures, extending lifetime and reducing maintenance costs.

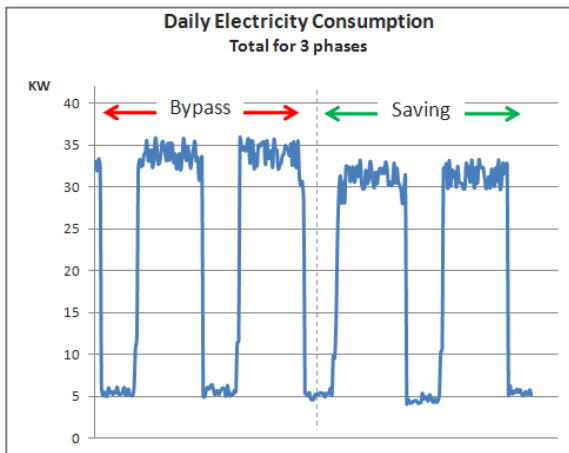
ComEC's light-weight and small footprint enables easy installation at any location with minimal disruption to operation. The system is connected after the main circuit breaker and does not require any changes to be made to the existing electrical infrastructure. The entire installation can be completed within hours.

RESULTS

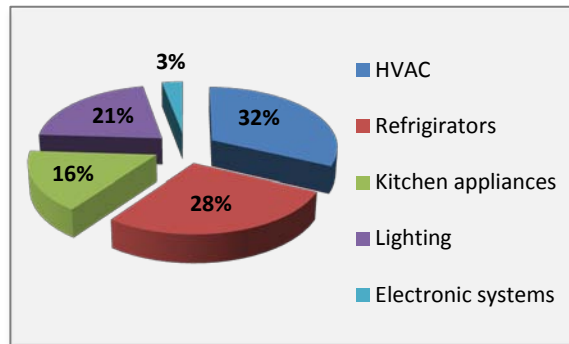
The example below shows results of energy savings in a typical McDonald's restaurant.

The ComEC 160A model was selected to match the main circuit breaker of the facility. The system supplies electricity to all kitchen appliances, HVAC and lighting circuits in the facility. ComEC provided 12.9% immediate energy savings on a 230V electric network.

	Monthly KWh	Annual KWh
Without ComEC	19,127	228,000
With ComEC	16,659	198,588
McDonald's savings	12.9%	29,412



Total energy savings with and without ComEC



Breakdown of electricity consumption by groups of appliances

CASE STUDY

APPLICATION

Restaurant, Cafes & Fast Food

BENEFITS

Up to 18% direct savings for all electric loads

ROI within 1.5-3 years

Quick and easy installation

No changes to existing electrical infrastructure

Voltage stabilization and control

Internal & manual bypass & protections

Decreases reactive energy

