

Case Study:

Tennessee BBQ Restaurant



Small Box energy

Rising energy costs and increasing energy usage are putting pressure on the restaurant industry's bottom line. An energy management system can reduce energy consumption by providing visibility and control of HVAC, lighting and walk-in coolers and freezers; in turn it will improve the bottom line. The **chameleon® energy management system** was designed specifically to meet the needs of restaurants and convenience stores. Currently installed in over 300 locations worldwide, **chameleon** is proven to reduce energy use and lower energy expense. Nonproprietary based equipment including, adaptable refrigeration control, smart thermostats and a visible dashboard, set the stage for energy saving by providing control and visibility.

Challenge

In order to run a profitable business optimal performance is necessary from energy consuming equipment. Due to the fast-paced environment of the restaurant industry, people and equipment must perform seamlessly in order to serve its customers. When it comes to customer comfort, HVAC and lighting are a major factor in the overall experience. Increasing profit in the low-margin restaurant industry requires reducing operating cost. Looking for a way to reduce expenses, a franchise owner of Famous Dave's in Tennessee decided to give energy management a try. Weather conditions in the area make customer comfort a top priority. Her staff members were adjusting the thermostat set points on a regular basis, sometimes creating an uncomfortable environment for some customers while trying to accommodate others. These adjustments resulted in unpredictable energy bills. Lighting was also an issue, she was finding that employees were good at turning the lights on when arriving for the first shift, however when employees left, they were forgetting to turn the lights off, automated lighting schedules were needed.

Solution

After reviewing many solutions she chose **chameleon energy management systems** for her locations. Controlling HVAC lighting and the unique integration with walk in refrigeration and freezer control and proven success lead her to make a choice that would give her a fast return on investment. Being that it is also internet capable, it provided her with control and visibility at all of her locations from anywhere she had an internet connection. Installation was easy taking only 2 days per store and causing no downtime. To achieve this, the installer worked as much as possible on non-peak hours. Lighting schedules and HVAC set points were configured prior to installation and verified once installed. At the completion of the installation the installer trained the staff on how to use the system. The touchscreen interface was designed based on the premise that it needed to be taught in 20 minutes to a 20 year old. The owner operator can view and make changes locally via the touchscreen interface or from anywhere that has an internet connection.

Results

Since installing the **chameleon energy management system**, the owner has seen a 17% savings on HVAC, lighting and refrigeration costs. On top of that, customer complaints that the temperature was too cold have stopped. We initially projected a 24 month return on investment, however at this rate of savings the return will be in 18 months or less.

Fast Facts

Equipment Controlled	HVAC, Lighting, and Refrigeration
Energy Savings	17%
Cost of System	\$13,105
ROI	18 months



System at a Glance

HVAC Zones / Thermostats	5
Space Temperature Sensors	5
Duct Temperature Sensors	5
Lighting Zones (using sunrise/sunset function)	4
Refrigeration Zones / Evaporative Efficiency Controllers	4
Photocell Control (for cloudy days)	yes