



ecobee

Energy Savings Cooking in the Kitchen

Retailer, Kitchen Stuff Plus, achieves significant energy savings with ecobee Energy Management System.

PROJECT OVERVIEW AND KEY OBJECTIVES

Founded in 1987 and expanding rapidly, Kitchen Stuff Plus is a leading discount retailer of housewares and home decor with 10 retail locations throughout Canada. In the spring of 2009, Kitchen Stuff Plus sought a commercial energy management system to pilot in the company's newest store in Mississauga, Ontario. Kitchen Stuff Plus chose this store for a pilot because it had the highest energy bill and was therefore the easiest place to measure savings due to the considerable costs of heating/cooling the location.

To determine which Energy Management System to install, Kitchen Stuff Plus compared a variety of programmable devices from Home Depot as well as the Omni II from HAI and the ecobee Energy Management System. The company chose the ecobee Energy Management System because none of the other solutions offered the central management capabilities that they required. Kitchen Stuff Plus was especially interested in the ecobee Energy Management System due to its comprehensive reporting and diagnostics capabilities, remote access, and the opportunity to participate in ecobee's beta testing program.

OVERVIEW OF INSTALLATION PROCESS

After signing the contract, Kitchen Stuff Plus hired their preferred HVAC service company, Kevin Orr Mechanical, to install 4 ecobee Energy Management System units in the approximately 12,600 sq. ft. store; one for each Roof Top Unit (RTU).

Installation of the ecobee Energy Management System was simple and fast with a basic four-wire install. "The documentation that came with the units was thorough and easy to follow, so our team had the ecobee up and running very quickly," said John Thompson, IT Director, Kitchen Stuff Plus. "We found the interface extremely intuitive and easy to understand. And the ecobee customer service team was a pleasure to work with—incredibly responsive and helpful."

PROJECT OUTCOME

Due to the advanced reporting capabilities of the ecobee Energy Management System, the Kitchen Stuff Plus team was able to immediately diagnose why this retail location was consuming so much more energy than their comparable stores; the team discovered that one of the company's rooftop units was not working like the others. Using this information, the team investigated the issue to find that the HVAC installation did not match the design blueprints.

Kitchen Stuff Plus has experienced measurable energy savings from the installation of the ecobee Energy Management System. Looking at April-December in 2009 and 2010, Kitchen Stuff Plus compared energy and gas savings between store ST010 (ecobee) and store ST008 (similar size stores with the same lighting and construction and with a programmable thermostat from another manufacturer). In both energy and gas, the ecobee Energy Management System showed substantial savings over the course of the two periods reviewed:

Electricity (kWh)		2009	2010	Delta	Pct Change
ST010	ecobee	300500	246261	-54239	-18.05%
ST008	non-ecobee	381741	352681	-29060	-7.61%

Gas Consumption (m3)		2009	2010	Delta	Pct Change
ST010	ecobee	7897	5724	-2173	-27.52%
ST008	non-ecobee	2756	2077	-679	-24.64%

Electricity saved in the first 6 months was approximately \$6,500, and gas about \$800. In electricity, the ecobee Energy Management System saved 10.44% more electricity and 3.88% more gas than the competitor's programmable thermostat. Once Kitchen Stuff Plus normalized the data for weather, they found that they saved about \$3,000 in total due to ecobee. Based upon the initial costs of equipment, their payback was roughly 12 months.

In addition to the direct energy savings, Kitchen Stuff Plus expects to realize significant cost savings by running all stores according to standard operating procedures, reduced costs for system setting changes and reduced service costs by requiring fewer on-site visits.

Kitchen Stuff Plus found the project a complete success and continue to appreciate the tremendous energy savings, diagnostic capabilities and remote management of the ecobee Energy Management System.