



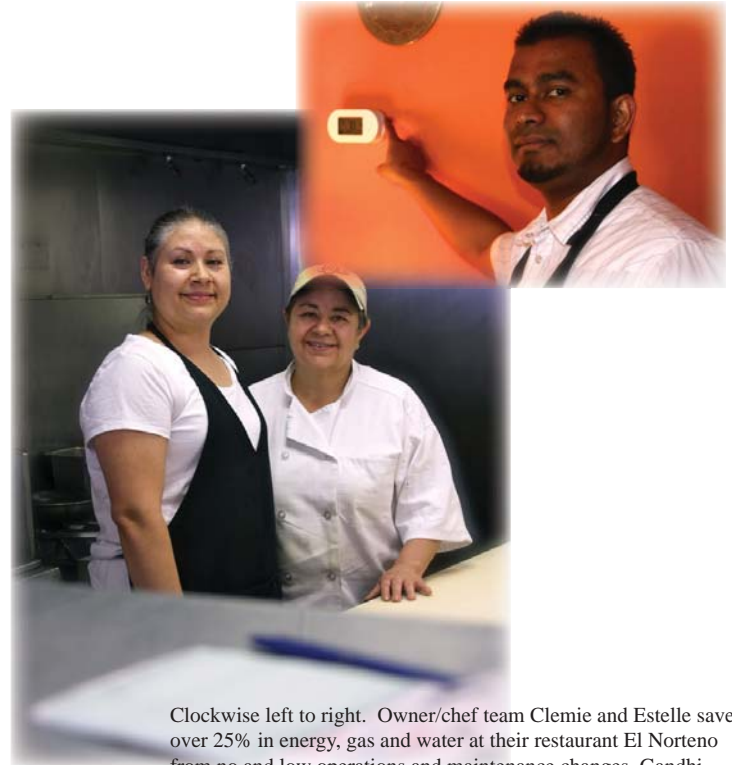
Food Service Energy Efficiency Leadership Pilot

Restaurants, convenience stores and grocery stores are energy intensive, using more than twice as much energy per square foot than any other commercial activity. Just a 20% energy savings across the national food service industry would be equivalent to \$11.6 billion. While the State of Minnesota has robust energy conservation and efficiency programs, the food service sector is an underserved market with the potential for substantial energy efficiency improvements and savings. Small to mid-sized food service businesses in the Midwest spend an average of \$34,000 in energy bills per year. With a slim profit margin (typically 5%), a reduction in energy costs directly impacts the bottom line. Still, small business owners typically lack the time and resources to investigate or invest in modifications. In January 2009, The Green Institute partnered with local small business owners in the food service industry in South Minneapolis. The goal of this pilot project was to test a unique strategy for supporting local sustainability leadership and identifying energy efficiency opportunities within the local food service sector.

States like Oregon, Washington and California lead the country in creating strategies to improve the energy efficiency of existing commercial facilities and equipment used for cooking, holding and serving perishable food. For example, the utility-funded Energy Smart Program in Washington State offers technical assistance and prescriptive rebates specifically for the food service sector. The program finances in whole or in part the installation of technologies as simple as strip curtains and auto-closers (for reducing energy loss in high-trafficked walk-ins) and as high-tech as highly efficient fan motor replacements for refrigeration systems.

The Green Institute provided direct support to South Minneapolis food service businesses for one year, helping them shape and meet their energy conservation goals. By inventorying equipment and monitoring energy usage The Green Institute could ensure its recommendations were practical and cost-effective. Participating businesses went on to employ strategies from simple procedural changes, such as equipment and controls maintenance. Also offered were more involved investments in a few capital-intensive retrofit options, like installing a demand-based variable speed kitchen exhaust hood. Figure 1 (on back) depicts the best practices identified as opportunities for energy savings among the pilot participants. Throughout the implementation process, The Green Institute lent itself as a third party resource, providing feedback on energy consumption patterns to the business owner/manager, negotiating competitive pricing on equipment and services, and accessing appropriate prescriptive and custom rebates to minimize the upfront costs and risks faced by the owner in implementing his or her conservation strategy.

Figure 2 depicts the food service processes made more efficient by The Green Institute's recommendations to pilot businesses. Note that over 50% of the identified energy savings came from heating



Clockwise left to right. Owner/chef team Clemie and Estelle saved over 25% in energy, gas and water at their restaurant El Norteno from no and low operations and maintenance changes. Gandhi Mahal Owner Ruhel installed and set programmable thermostats in his restaurant's seating area.

and ventilation improvements. The Green Institute highlighted the heating requirements for this region by developing a challenge for pilot participants to compare their energy usage during February/March 2009 and 2010, the months with the greatest energy requirements in Minnesota. One restaurant owner participating in the challenge was able to save 25% on her water, electricity and gas just by turning off equipment when not in use, testing/calibrating temperature controls (fryer), installing low-flow pre-rinse valves, resetting her programmable thermostat, and conducting regular HVAC filter maintenance.

There are 10,000 food service establishments across Minnesota with 2,000 just in Minneapolis. The National Restaurant Association reports that over 57 percent of adults say they are likely to make a restaurant choice based on the degree to which it supports the local community and its offerings are environmentally responsible. The Green Institute's pilot program confirmed that the food service industry is receptive to sustainability and is committed to improving their energy efficiency. With an approach that offers good communication, convenience, motivation and education, The Green Institute aims to help food service businesses overcome the obstacles to realizing maximum energy savings.

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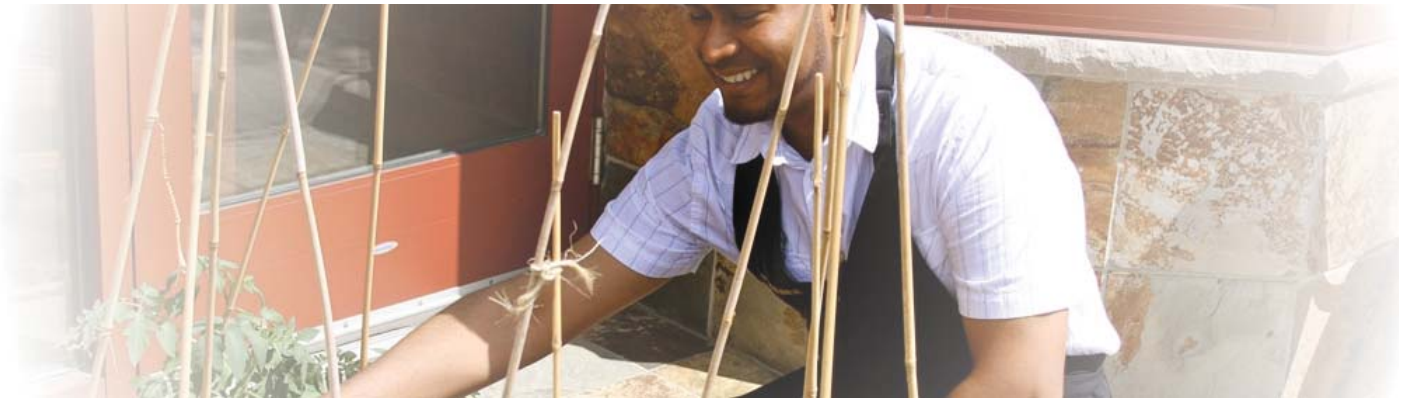


Figure 1: Best Practice Opportunities Identified among Pilot Participants

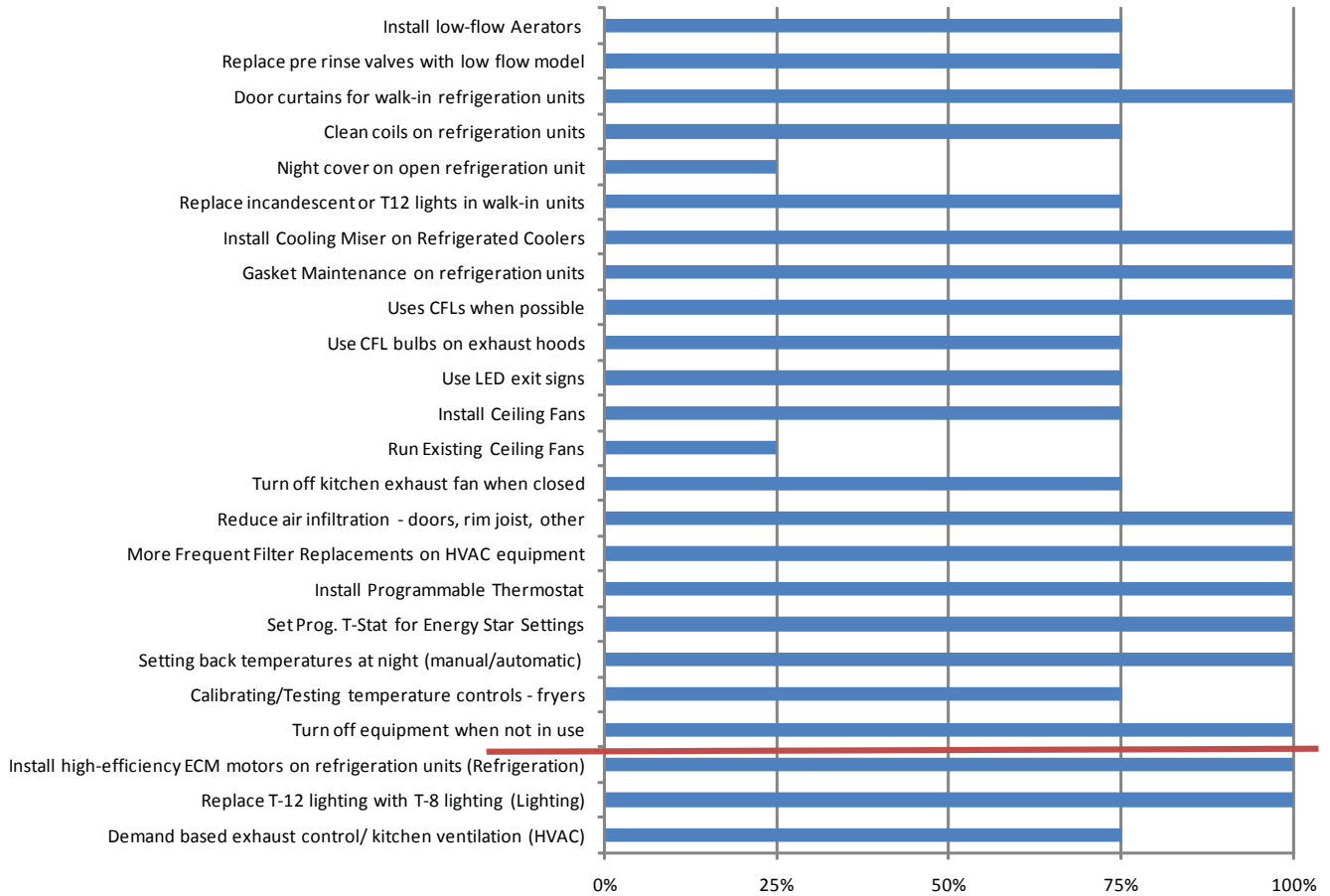


Figure 2: Energy Savings Opportunity by Process in Pilot

