New Jersey's cleanenergy program™
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Success Stories

Shop n Bag

PROJECT INFORMATION

Program Participant
- Shop n Bag

Location
- 10 Bank Street
  Farmingdale, NJ 07727

Project Contact
- John Doyle
  Store Owner

Technology
- LED case lighting
- Refrigerator controls with anti-sweat door heater
- Electrically commutated motors (ECMs) for walk-in freezers and refrigerator cases
- Night curtains and insulated glass doors on refrigeration cases

Total Project Cost
- $155,121

NJCEP Incentives
- $108,585 through the Direct Install program

Estimated Annual Savings
- 287,245 kWh
- $34,719

Project Payback
- 1.34 years

Direct Install Partner
- National Resource Management, Inc.

Project information, savings and environmental benefits were provided by the project contact.

Grocery store closes door on outdated practices, upgrades to more energy-efficient refrigeration equipment

Background

Twenty years ago, conventional wisdom among grocery store owners was never to place a barrier between product and customer. Owners worried that glass doors on freezers and refrigerated cases, although effective for containing energy costs, would reduce browsing and decrease sales.

But times are changing. A recent Food Marketing Institute survey found that 78 percent of shoppers report increased interest in health, wellness or sustainability when buying groceries. That means taking more time to examine and compare products, even if a door is standing in their way.

At Shop n Bag, a voluntary association of independent grocery stores with 20 locations in New Jersey and Pennsylvania, John Doyle said energy costs initially prompted him to consider installing dairy aisle doors. “Common wisdom was not to impede customers, but because electricity costs have skyrocketed, a number of retailers are putting doors on cases traditionally left open,” said Doyle, who owns the Shop n Bag in Farmingdale, New Jersey.

Other factors also influenced him to reconsider his refrigerated aisles. When asked about in-store comfort, more than 50 percent of customers complained the aisles were too cold. In the winter, store

Doors on dairy cases and night curtains on meat and produce cases as well as new refrigeration controls, motors and LED case lighting at the Farmingdale Shop n Bag resulted in an estimated 30 percent reduction in energy use.

temperature was set to 68 degrees, but the refrigerated aisles were reducing the store’s average temperature to lows of 63 degrees.

Despite Doyle’s interest in improving the store’s energy efficiency, he viewed technologies such as refrigeration controls, automated motors and advanced lighting to be too costly. That was until he discovered the financial incentives provided by *New Jersey’s Clean Energy Program*™ (NJCEP).

Solution

The NJCEP Direct Install program offers a free energy assessment and incentives that cover up to 70 percent of the cost to upgrade equipment in buildings that use as much as 200 kW per month of electricity.

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Success Stories

Shop n Bag

We saved money. We made the store more comfortable for shoppers. And by saving approximately 30 percent on energy consumption, it's good for the environment, too.

John Doyle
Store Owner
Shop n Bag

Shop n Bag

Shop n Bag
10 Bank St
Farmingdale, NJ 07727

Direct Install is a turnkey solution that makes it easy and affordable to upgrade to high-efficiency refrigeration, lighting, and heating, ventilation and air conditioning (HVAC) equipment.

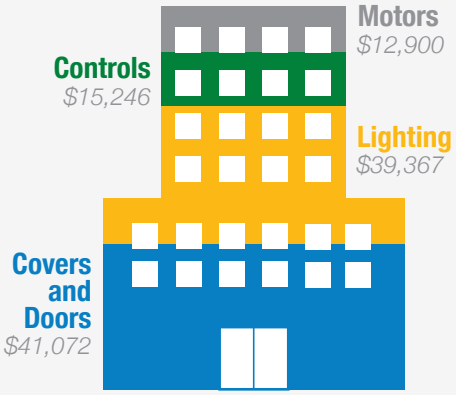
National Resource Management, Inc. (NRM), a participating NJCEP contractor, was contacted by Doyle to assess how to make the Shop n Bag refrigeration systems more energy efficient. The energy audit identified opportunities to replace lighting in the refrigerated cases, where fluorescent lighting generated significant amounts of heat, leading to higher electricity costs to run the refrigeration units. At times cases were over chilled, and defrost cycles were automatically set for longer than needed. NRM recommended optimizing display case door and frame heaters to operate only when necessary.

Doyle decided to install $155,121 of equipment, including LED lighting, energy management controls on the walk-in coolers and freezers, electrically commutated motors (ECMs), and covers such as glass doors or night curtains to retain temperatures in the dairy, meat and produce sections.

"Imagine leaving the refrigerator door open 24 hours a day, seven days a week, and then deciding to close the door," Doyle said. "It's pretty elementary, common sense, but that has dramatically reduced our energy consumption."

NJCEP provided $108,585 in incentives to lower the project cost to $46,536. In addition, National Resource Management anticipates the project will save Doyle 287,245 kWh, or $34,719 in annual electricity costs, leading the project to pay for itself in less than 17 months.

Project Incentives: *$108,585*



In response to concerns regarding doors in the dairy aisle, the glass doors are proving to be a promotional opportunity. Customers are more comfortable, leading them to spend more time browsing aisles. LED in-case lighting creates more colorful, engaging displays. The installation of LEDs, which emit less heat, is estimated to increase the shelf life of fresh meat and produce by as much as two days.

"This was a win-win," Doyle said. "We saved money. We made the store more comfortable for shoppers. And by saving approximately 30 percent on energy consumption, it's good for the environment, too."