THE CHALLENGES—AND SUCCESSES—IN MAKING THE COOP MORE ENERGY EFFICIENT

January 28, 2025



By Dan Bergsagel

January 28, 2025

The Coop has long been a trailblazer in trying to save energy and operate as a responsible citizen in a world where the climate crisis has become increasingly urgent.

Way back in 1991, the Coop installed an energy efficient gas-powered air-conditioning system that avoided using ozone-depleting CFCs. The Coop started buying electricity generated only from solar and wind farms in 2005. All lighting was replaced with LEDs in 2019. Those new fixtures use 75 percent less energy and last 25 times longer, saving $40,000 per year.

LUNDBERG
CONTAINS 6
RICE CAKE BAGS
Stacy's
4
PHOTO BY ZACHARY SCHULMAN


ROBUR
ROBUR
ROBUR
PHOTO BY ZACHARY SCHULMAN

PHOTO BY ZACHARY SCHULMAN

PHOTO BY ZACHARY SCHULMAN



There is more that can be done, but those ambitions run up against the challenges of the very nature of the Coop itself. The Coop is open nearly every day of the year, the turnover of groceries from the shelves is high, and members are constantly coming in and out to shop or work. There is very little time for repairing or replacing equipment because everything is constantly being used. The doors and loading bays are often open, letting heat out during the winter or heat in during the summer.

“We are a huge energy user,” explained General Coordinator Elinoar Astrinsky. “We have refrigeration on 24/7, and we have lights on pretty much 24/7.”


PARK SLOPE FOOD COOP
PARK SLOPE
FOOD COOP
RAYMOND
PHOTO BY ZACHARY SCHULMAN

EXIT
PHOTO BY ZACHARY SCHULMAN


BEEF CUTS
PHOTO BY ZACHARY SCHULMAN

Still, the Coop has a commitment to doing things better.

“We want to reduce our energy consumption—not just for costs but to be good environmental stewards,” Astrinsky said.

The Coop operates two energy systems. The first, powered by natural gas, regulates the internal temperature—heating, ventilation and air conditioning. The second is powered by electricity from the local grid, and operates the refrigeration systems that keep food chilled or frozen, the lighting and computer systems, and the network of elevators and conveyors that lift and lower food and people around the building.

Improving these systems is not straightforward, but it is the role of Astrinksy and the Energy Efficiency Committee.

Previously, low energy-consumption equipment that did not draw from the local electricity grid—including the 1991 gas-powered AC system—was favored over all-electric systems. Today, local NYC laws and national trends have led to a push to reduce fossil fuel use in favor of renewable electricity.

Some energy decisions are common sense. The motors that power the refrigeration cases in the Coop have recently been changed to so-called electrically commutated ones, which are costly but three times more efficient.

The open refrigeration display cases have been fitted with night curtains—screens which are pulled down when the Coop is closed—to reduce energy loss.



PHOTO BY ZACHARY SCHULMAN

Night curtains on open fridges reduce energy loss.
Historically, the changes adopted by the Coop have been effective.

In 2008, the Coop's energy performance was rated in the top 25 percent when compared to grocery store peers as part of the U.S. Environmental Protection Agency Energy Star program. (At the Coop's entrance, there is a small plaque to the right of the main doors, bearing the familiar Energy Star logo, which is more often seen as a blue sticker on a new appliance.)

The certification was received under the stewardship of Bob Sauchelli, a former E.P.A. employee and Coop member. "Energy Star is not a recipe," explained Sauchelli. "It is not a prescriptive based rating system. It's a performance-based one. You could put perfect technology into a building and then mismanage it completely—overheat it in winter, overcool it in summer." In other words, the Coop performed well because it had made sensible decisions in choosing cooling systems—and then used the systems wisely.

The Coop also performed well due to its success as a grocery store. "The busier the store, the higher the energy budget," Sauchelli said. The number of people passing through means that the Coop is being compared to stores with equivalent customer bases, which are much larger and need to heat and cool larger volumes.



PHOTO BY ZACHARY SCHULMAN

The front door and loading doors are often open.
In 2024, some improvements to reduce energy loss were considered and rejected. A reconfiguration of the entrance vestibule to reduce air flow and heat loss when the doors are open was deemed impractical due to the exceptionally high shopper traffic at the Coop. Additional plastic film glazing on the inside of all windows was deemed undesirable because it would hinder their use.

In early 2025, additional glazing (a plastic laminate) is scheduled to be added to the large skylight above the shopping floor to reduce heat loss. With 17 years worth of energy consumption reduction efforts now completed since the last Energy Star certificate, is it time for the Coop to renew its status, and see how well it is performing? Sauchelli said he “would love to see the plaque updated” and would happily assist with the process.

Dan Bergsagel is a structural engineer from London. He likes to talk about the unexpected things hiding in plain sight.