



## Project Snapshot

**BUILDING TYPE:**

33 Grocery Stores

**MEASURES:**

Refrigeration – Night Covers

**APS INCENTIVES:**

\$91,550

**ANNUAL PROJECTED ELECTRICITY SAVINGS:**

3.7 million kWh

**LIFETIME PROJECTED SAVINGS:**

14.8 million kWh

# Arizona Grocer Cuts Energy Use

Refrigeration consumes more than half the electricity in a large Arizona grocery store, making it an obvious target for efficiency improvements. But decisions about a store's refrigeration equipment extend beyond energy usage. The quality of refrigeration affects product integrity, freshness, and lifespan, all of which directly impact consumers.

"Yes, improving the efficiency of our refrigerated cases saves energy," said Rick Hamm, Bashas' vice president of construction. "But even more importantly, it further ensures the quality of products we deliver to our customers. Installing night covers was a good decision for Bashas' and for the community." Incentives from the APS Solutions for Business program helped to make it possible.

## Project Overview

Bashas' considered installing night covers on its open refrigerated cases as one of a range of solutions to reduce energy usage in its stores. Hamm contacted equipment vendors to discuss night cover features and their respective energy savings. During the course of conversation, he learned about the rebates available from APS. The APS Solutions for Business program offers an incentive per linear foot of installed product.

Night covers work like retractable window shades. Store employees pull down the night covers over open refrigerated cases to trap in cold air. The covers reduce the energy used by refrigeration compressors, which can reduce total refrigerated energy use by an average of 40% in Arizona. Trapping the cold air in the case overnight also keeps the store's temperature more stable after closing and more comfortable for early-morning customers.

The night shades installed in Bashas' stores are made of woven aluminum fibers, which reflect heat and UV radiation. Perforations in the fabric allow condensation to evaporate and prevent mildew from forming. According to the manufacturer, the night covers maintain optimal temperatures within the display case for up to 15 hours after the night shades have been rolled up.

*Photo above courtesy of EconoFrost, Inc.  
[www.econofrost.com](http://www.econofrost.com)*

**Adding retractable night covers to refrigerated cases saves energy and improves product quality.**

**Inspired to save energy  
in your business?**

Visit [aps.com](http://aps.com) and click on "business rebates" for ideas and information to get started today.

## ADDITIONAL REFRIGERATION STRATEGIES

Add energy-saving controls to reach-in beverage coolers to reduce energy use by an average of 40%.

Install anti-sweat heater controls on display cases. These controls sense humidity conditions and turn the heaters off when unneeded, rather than allowing them to run 24 hours a day. You could save \$140 or more per sensor each year.

Purchase high-efficiency ice makers and set production for off-peak hours.

Replace aging or inoperable appliances with ENERGY STAR® labeled commercial solid door refrigerators and freezers, which save up to 45% of electricity use compared to other models.

Install high-efficiency evaporative fan motors in refrigerated cases and walk-in coolers to reduce motor energy use by up to 70%. This measure also reduces the amount of heat generated by the motor that must be removed from the case.

Conduct regular maintenance. Recharge low refrigerant. Clean condenser and evaporator coils. Replace torn or loose door gaskets. Insulate bare suction lines.

Bashas' chose a store with high traffic counts to evaluate the durability and impact of the night shades. "It was obvious from the pilot that the night covers were a solid energy-saving solution for our stores," said Hamm.

The original plan was to install the night covers in half of the stores that Bashas' operates.

"When we saw the results, we decided to expand the night shades to as many stores as possible," said Hamm. With APS incentives, Bashas' was able to install the energy-saving shades in more stores in less time.

## Installation and Implementation

It typically takes about two to four hours to install night covers. During a few of the grocery store installations, some price tags had to be relocated to accommodate the night covers. Overall, it was a smooth process.

Hamm said, "The only downside to this technology is that it is subject to human error. If employees forget to pull down the shades, then you don't get the energy benefits. We plan to spot-check stores to ensure consistency."

As a large company with statewide reach, Bashas' faced some unique challenges. "We have stores in every county of Arizona, so we had to figure out which ones were in APS territory, making them eligible for the incentives," says Hamm. The team at APS worked with Bashas' throughout the installation process. According to Hamm, "The night shades have a strong return on investment."

## Extending the Impact

Hamm observed that reducing energy use and safeguarding the environment connects with the company's culture. "Bashas' has always looked for ways to be environmentally responsible," said Hamm. "We have been recycling for more than 40 years." So it was no surprise when the company turned its attention to energy efficiency.

Bashas' is retrofitting lighting in many stores, using APS incentives, and is considering other energy efficiency improvements. New stores are being built to meet higher energy efficiency standards. "We are committed to serving our community," said Hamm. "Saving energy is an important part of our commitment."

## How much will your business save?

For more information, visit [aps.com](http://aps.com) (click on "business rebates") or call 866-277-5605.

*The APS Solutions for Business program is funded by APS customers and is approved by the Arizona Corporation Commission.*

## APS Solutions for Business

The Solutions for Business program offers cash rebates, training and information to business customers to reduce energy consumption in new and existing buildings. These projects create real energy savings, which translate to a better bottom line. They can also reduce maintenance demands, improve comfort and boost productivity.

Business customers can choose from a diverse menu of incentives—from lighting and refrigeration to motors and HVAC. The program also offers rebates for Energy Information Services and technical studies.

