

The Regional Greenhouse Gas Initiative (RGGI) and Energy Efficiency Helping Maine

Hannaford Supermarkets

Case Study

#7



“By completing these energy saving projects using Maine’s RGGI funding, we’re staying competitive and meeting our carbon goals, all the while reducing our energy usage. It’s really a win-win situation.”

**– Paul DuPerre, Energy Manager,
Hannaford Supermarkets**



Hannaford Supermarkets made lighting improvements at 10 retail stores and its main distribution center in South Portland. The company quickly recouped its investments through lower electricity bills. “Energy savings allow us to maintain a competitive advantage in the marketplace and enable us to invest back in our infrastructure. In fact, we already added two new stores in 2014. These kinds of capital investments grow our business as well as those of the Maine subcontractors we employ to do the work of these energy-saving projects.” Bruce Jenkins, Regional Facility Manager for Delhaize America.

RGGI and Energy Efficiency Helping Business



Goals

- Reduce electricity costs for lighting and refrigeration in the distribution center and 10 retail stores
- Maintain high quality light at both venues

Challenges

- Near 24/7 workflow at distribution center requires efficient cooperation with contractor
- At distribution center, need to balance brightness with worker safety issues
- In retail stores, customers very sensitivity to display changes

Solutions

- Efficient LED lighting
- Experienced consultant provides full turn key project for distribution center
- In-house energy supervisor supports store project and prioritizes customer experience

Financial Analysis

Retail Stores: Refrigerated Case

LED Lighting Retrofit

Project Cost: \$302,000

RGGI-Funded Efficiency Maine

Incentive: \$151,000

Projected Savings: \$57,420 per year

(522,000 kWh per year)

Payback Period: 5 years

Distribution Center: Refrigerated

Storage LED Lighting Retrofit

Project Cost: \$593,110

RGGI-Funded Efficiency Maine

Incentive: \$263,124

Projected Savings: \$144,300

(1,300,000 kWh per year)

Payback Period: 1.8 years

Hannaford Distribution Center in South Portland and Stores Statewide

Hannaford has seen tremendous growth since the company's humble beginnings as a produce vendor on Portland's waterfront in 1883. What was once a small horse-drawn cart now is a complex grocery retail and distribution business with 185 stores and more than 26,000 associates in five Northeast states. Two of three Hannaford distribution centers, the corporate offices, and 57 stores are located in Maine, employing about 9,000 full and part-time associates.

Sustainability is a key component of Hannaford's business strategy. Hannaford's parent company—Delhaize America—aims to reduce greenhouse gas emissions 20% by 2020. Because of refrigeration and lighting requirements, energy use in stores and warehouses can be expensive, so any effort to reduce these costs is a win-win for the company.



What They Did

Traditionally, light means heat. Old-style sodium and fluorescent lighting—the kind commonly used in distribution centers and grocery stores—give off heat. Old-style lighting in refrigerated spaces wastes energy as compressors need to work extra hard to compensate for the heat emanating from the bulbs. This fact, combined with the lower electricity use and long life of LED lights, made lighting retrofits attractive in Hannaford's main distribution center in South Portland and 10 retail stores in the state.

Through a Large Customer Project cost-match with Efficiency Maine, Hannaford replaced old-style sodium lighting in its

distribution center with ultra-efficient LED's. The LED's have lower electricity usage, give off less heat, and high quality bright light, much better than the old orange alternative.

In 10 retail stores in Maine, approximately 1,200 refrigerated display cases were retrofitted with LED lighting, replacing older, less efficient T8 fluorescent lighting. In addition to saving energy, the new lighting puts out higher quality light and requires much less frequent maintenance, such as changing bulbs.

Results

The nearly 400 people employed in the distribution center enjoy the higher quality light, especially the lower glare of the new bulbs. The project saves Hannaford more than \$140,000 a year, and will pay for itself in less than two!

And in the retail stores, customers and store associates alike loved the new lighting in the refrigerated cases. In total, the project saves about \$57,000 for Hannaford a year, and will pay for itself in five years.

"Historically we would have gone through Efficiency Maine's old incentive cap of \$50,000 per year in just one project, but the large customer program enables us to tackle big issues and get bigger savings—thanks to RGGI," said Paul DuPerre, Energy Manager at Hannaford.

RGGI and Energy Efficiency Creating Jobs



Lighting Solutions, Inc., Falmouth

(207) 772-2738 • www.lightingsolutionsinc.us

Lighting Solutions, Inc. provides complete design/build lighting services for distribution centers and retail stores in the supermarket industry, and employs about two people in Maine, depending on the flow of contracts. Lighting Solutions completed this full turnkey project, including proposing the project to Hannaford and Efficiency Maine, and managing the construction.

“It’s really important for us to dance well with the client. Because distribution centers require lighting at all hours of the day, we do our best to make it easy to for the client to keep working while we complete the project,” said Lighting Solutions President Steve Grimshaw. Because Steve understood the details of work at the Distribution Center from his experiences at this and other distribution centers, he was able to efficiently complete the project.

“Steve really guided us through the maze,” said Bruce Jenkins, Regional Facility Manager for Delhaize America. Lighting Solutions subcontracted with Keeley Electric, Inc.—another Maine-based company—to help complete the installation in the distribution center.

L & B Electrical Contractors, Inc., Lisbon Falls



(207) 353-5521 • info@lbelectric.net

For the retail store lighting upgrade, Hannaford chose L&B Electrical Contractors, Inc., a local contractor that specializes in commercial lighting and electrical, and currently employs 15 people in Maine.

“We loved doing this project because not only did it save the owner money, but it also made the products look so much better than the old lighting. It really was a win-win for everybody,” said Jim Lamson at L&B Electrical.

The Regional Greenhouse Gas Initiative (RGGI) is a market-based effort among nine states to reduce climate-changing carbon pollution from power plants and spur investments in energy efficiency and clean energy. The program began in 2009, and today delivers cleaner, more efficient electricity, and a more energy-independent and competitive economy for Maine.

RGGI-Funded Grants

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|---------------------------------|
| Bath Iron Works |
| Bowdoin College |
| Corning Life Science |
| GAC Chemical |
| Hannaford Brothers |
| Huhtamaki |
| Irving Forest Products |
| Jackson Labs |
| Lewiston-Auburn Water Authority |
| Madison Paper |
| Maine General Heath |
| Maine Wild Blueberry |
| Mid Coast Hospital |
| Mid State Machine |
| Moose River Lumber |
| Mt. Abram |
| Old Town Fuel & Fiber |
| Poland Spring / Nestle |
| Portland Water District |
| Pratt & Whitney |
| Prime Tanning |
| Rumford Paper Company |
| SAPPI Paper |
| Smith & Wesson |
| State of Maine |
| Sugarloaf |
| Sunday River Ski Resort |
| Twin Rivers Paper |
| University of Maine |
| University of New England |
| University of Southern Maine |
| Verso |
| Woodland Pulp |

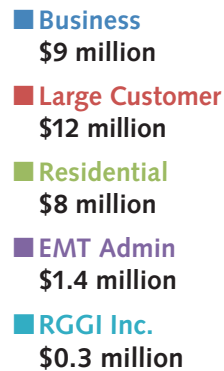
Competitive RGGI grants (averaging \$330,000) have helped Maine manufacturers and other large energy consumers make major cost-effective energy efficiency improvements. As of December 2013, \$12 million in large customer grants had leveraged roughly \$35 million in private spending, and generated \$139 million in lifetime energy savings.

RGGI Protecting Maine's Economy and Climate

For every \$1 of RGGI funds, Maine consumers save \$8 on energy bills, and the state economy grows by \$4

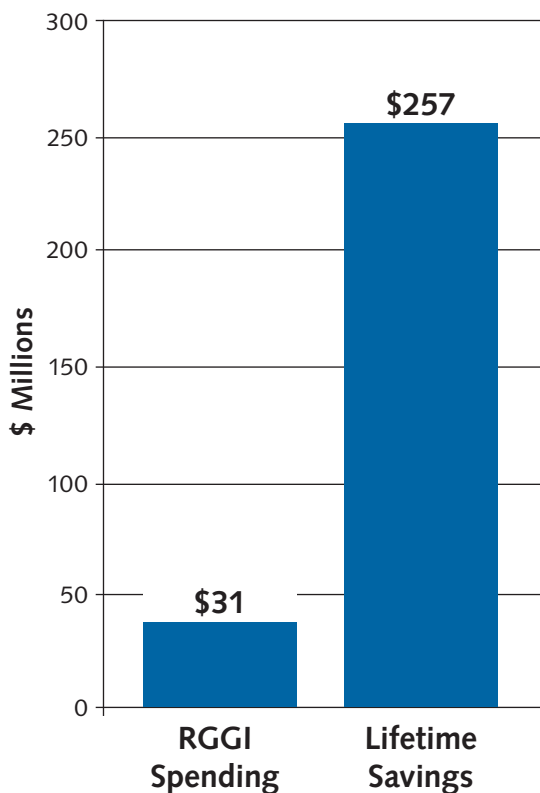
Independent analysis shows that RGGI has driven economic growth in Maine, primarily through investments in money-saving energy efficiency. As of December 2013, Maine had invested over \$31 million of RGGI-generated funds in energy efficiency improvements in homes, businesses and industrial facilities, creating \$257 million of savings over the lifetime of the improvements, including \$180 million for Maine businesses. Maine's gross state product (GSP) increases by \$4 for every \$1 invested in energy efficiency programs. To date, Maine's GSP has grown by more than \$100 million because of RGGI.

Allocation of RGGI Spending in Maine (2008-2013)



Source: Efficiency Maine

Total Energy Savings in Maine from RGGI



RGGI is Central to Efficiency Maine Saving Millions for Homes and Businesses

The largest portion of RGGI funds has gone to large customer projects, from paper mills to hospitals. In addition, substantial RGGI funds have gone to households and smaller businesses to help them cut electric bills. In late 2013, Efficiency Maine began using RGGI money to fund weatherization programs that predominantly reduce home heating oil bills. Going forward, 35% of all RGGI funds are being used to help homeowners insulate and tighten up homes, and for investment in high-efficiency heating equipment. So far this weatherization program has helped homeowners reduce heating bills by an average of 33% or \$1,100 per year.

Proposed EPA Limits on Carbon Pollution from Power Plants

RGGI gains new relevance in 2014, as the U.S. Environmental Protection Agency is working to establish national carbon limits for power plants to help address climate change. The EPA plan rewards Maine's leadership with RGGI, and our economy and climate will benefit as our other regions come closer to our standards of clean power.

For more information:

1. To save money in your home or business with energy efficiency, contact **Efficiency Maine**, at www.energymaine.com or call toll-free 1 (866) 376-2463.
2. Learn more about RGGI, energy efficiency opportunities and benefits, clean energy jobs, or additional case studies by visiting the **Natural Resources Council of Maine (NRCM) online** at www.nrcm.org.
3. Please help support strong energy efficiency policies and programs in Maine. Stay informed by joining **NRCM's Action Network**: visit www.nrcm.org or contact Emmie Theberge at emmie@nrcm.org or (207) 430-0105.



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