

# Mass Save® Energy Efficiency Case Study

Brought to you by Cape Air

## CAPE AIR, HYANNIS, MA

Now in its 21st year, Cape Air is one of the largest independent regional airlines in the United States annually flying over 610,000 passengers to destinations around the world, including New England, New York, the Caribbean, Florida, the mid-Atlantic, the Midwest and Micronesia. Cape Air's landmark Sustainability Initiative is a comprehensive program committed to reducing both environmental impacts and energy use while building community partnerships. Cape Air aims to make its operations center in Hyannis a net-zero electricity importer on an annual basis and reduce electricity usage by 25 percent.

## PROJECT SUMMARY

Cape Air received a comprehensive energy assessment of their operations building through Cape Light Compact, their local Mass Save Program Administrator. Cape Air installed highly efficient lighting upgrades recommended by Cape Light Compact, including: lighting relay panels, occupancy sensors, photocells, and override switches to provide zone control to lighting in the hangar restrooms, storage rooms and offices, as well as vending misers on vending machines. Together, these measures can reduce Cape Air's electricity consumption by more than 60,000 KWh annually.

Cape Air also achieved a 15 percent reduction in natural gas consumption by adding insulation to the facility and sealing air leaks. Cape Air will soon implement another major upgrade to the building by installing a high efficiency HVAC system, new windows and doors, in addition to more insulation and air sealing.

As part of the goal to become a net-zero electricity importer at the site, Cape Air installed a 258 kW solar Photo-Voltaic (PV) system on the south facing roof of the facility. As of August 2010, this system was the largest PV system in Southeastern MA. Production is on target to reduce electricity imported to the facility by 335,000 kWh in its first year.



## SAVINGS SUMMARY

### THE NEED

To become a net-zero electricity importer and reduce electricity usage by 25 percent

### THE SOLUTION

Renovation of existing HVAC equipment, lighting and a major upgrade to building envelope

- **Total Project Cost:** \$96,813
- **Cape Light Compact/  
Mass Save Incentive:**  
\$35,515
- **Cape Air Contribution:**  
\$48,194
- **Federal Grant:** \$13,104
- **Estimated Annual Electric  
Cost Savings:**  
24,300 kWh per year
- **Estimated Annual Natural  
Gas Cost Savings:**  
3,592 Therms per year
- **Estimated Lighting/  
Mechanical Controls Payback:**  
2 Year Simple Payback
- **Estimated Building Shell  
Insulation Payback:**  
7.3 Year Simple Payback



To celebrate the installation of the efficiency measures and the new solar PV system at headquarters, Cape Air initiated the Double Down with Efficiency at Home Program. Through this program, Cape Air distributed three (3) Compact Fluorescent Light bulbs (CFLs) to each of its 850 employees. Replacing incandescent bulbs with these CFLs will collectively save 290,000 kWh per year. They are also encouraging their employees to receive Mass Save sponsored energy assessments through the Mass Save Residential program.

## **MASS SAVE® AS A STRATEGIC PARTNER**

Cape Air's dynamic collaboration with key partners is helping to offset Cape Air's considerable capital investment and ensure the success of its net-zero electricity project. Mass Save Program Administrator, Cape Light Compact, worked closely with Cape Air to provide expert recommendations and incentives for energy efficiency upgrades through a comprehensive energy assessment of the Fleet building, and will continue to provide invaluable technical expertise, project oversight, and financial assistance on future energy efficiency projects.

Jim Wolf, Green Initiative Director for Cape Air explained, "Cape Light Compact has been Cape Air's invaluable partner in planning and implementing energy efficiency improvements for our operations center at Barnstable Municipal Airport. From the first steps of assessing our energy use and recommending efficiency measures, through providing links to available incentives, rebates, and contractor services, Cape Light Compact's Commercial and Industrial Program is helping Cape Air achieve our goal of using energy more wisely, cost effectively, and sustainably."

The Town of Barnstable also lent critical project support, and Cape Air personnel and project contractors worked tirelessly to ensure that project elements were completed on time and within budget.

### **AWARDS:**

- 2011 Business Leader through the Northeast Energy Efficiency Partnership (NEEP)
- 2010 Association of Energy Engineers New England Chapter (AEENE) Award for Small Commercial and Industrial Best Customer-Driven Energy Project
- 2010 Mass Savers Award Winner

## **ABOUT MASS SAVE**

Mass Save is an initiative sponsored by Massachusetts' gas and electric utilities and energy efficiency service providers, including Berkshire Gas, Cape Light Compact, Columbia Gas of Massachusetts, National Grid, New England Gas Company, NSTAR, Unitil, and Western Massachusetts Electric Company. The Sponsors of Mass Save work closely with the Massachusetts Department of Energy Resources to provide a wide range of services, incentives, trainings, and information promoting energy efficiency that help residents and businesses manage energy use and related costs.

To learn more about these and other commercial and industrial energy efficiency programs available, visit [www.MassSave.com/business](http://www.MassSave.com/business) or join the [Mass Save group on LinkedIn](#).

