



Contract Details

Contract Type:

Energy Savings Performance Contract;
Energy Efficiency; Geothermal;
Guaranteed Energy Savings;
Renewable Energy

Facility Size:

50 buildings;
approximately 2.6 million sq. ft.

Energy Project Size:

\$14.1 million

Energy Savings:

\$1,210,840 annually

Summary

An island city of just 7.1 square miles that separates Biscayne Bay from the blue waters of the Atlantic Ocean, the City of Miami Beach is widely known for its beautiful beaches and pre-eminent beach resorts. The City includes popular locations such as South Beach, the Art Deco Historic District, Ocean Drive, and Lincoln Street Mall. Utilizing the State Term Contract as a basis for selection, the City awarded Ameresco the opportunity through a competitive bid process.



The City of Miami Beach is committed to celebrating its history and preparing for a green future; energy savings will help achieve these goals.



The City approved six major energy conservation measures (ECMs) proposed by Ameresco; and most City buildings are included within these ECMs.

Customer Benefits

The City of Miami Beach (CMB) has benefited from lower overhead costs and improved capital facilities for the employees and the community. Through this project, CMB reinvested annual savings of \$1.2M back into infrastructure improvements and significantly enhanced the social environment for the community.

As an additional benefit, Ameresco worked with CMB to secure grant funding which is being used to implement a geothermal project at CMB Police Headquarters. Ameresco creatively solved CMB's problem regarding the aging chillers at City Hall to implement a chiller water loop from the Convention Center to City Hall to satisfy CMB's HVAC needs.

CMB's Sustainability Plan stipulates, "By reducing energy consumption and increasing energy performance at the municipal and commercial levels, CMB will increase economic performance, decrease dependence on nonrenewable resources, and reduce GHG emissions." Implementation of this project assists CMB in achieving its goals for energy conservation, as outlined in the plan.

Additionally, the strong partnership between CMB and Ameresco resulted in Ameresco's appointment to CMB's Sustainability Committee.

Accolades

"As our energy partner, Ameresco has provided innovative and creative solutions that will benefit all citizens and visitors to our beautiful City of Miami Beach."

- Honorable Mayor Matti Herrera Bower

Environmental Benefits

Through CMB's partnership with Ameresco, CMB will reduce its carbon footprint. The expected annual green benefits from this carbon reduction are equivalent to:

- ▶ the removal of 1,321 cars from the road
- ▶ the planting of 1,639 acres of trees
- ▶ the powering of over 1,000 average-size homes

The project helps reduce the need for energy from traditional power plants fueled by fossil fuels.

Services Provided

Selected through a competitive bid process using the Florida State Term Contract guidelines as recommended by the Department of Management Services, Ameresco was responsible for the development, engineering, design, construction, and implementation of energy-saving measures and capital improvement projects. CMB approved six major energy conservation measures (ECMs) and most City buildings are included within these ECMs.

About City of Miami Beach

The City of Miami Beach was incorporated on March 26, 1915. Miami Beach is one of only a handful of U.S. locales that has never recorded snow or snow flurries in recorded weather history. Through fiscal prudence and good leadership, the City's journey to excellence is guided by its mission, vision and strategic plan that is making Miami Beach a better place. The City of Miami Beach is committed to providing excellent public service and safety to all who live, work, and play in the vibrant, tropical and historic community.

Learn more at www.miamibeachfl.gov.

About Ameresco

Ameresco, Inc. (NYSE:AMRC) is one of the leading energy efficiency and renewable energy services providers. Our energy experts deliver long-term customer value, environmental stewardship, and sustainability through energy efficiency services, alternative energy, supply management, and innovative facility renewal all with practical financial solutions. Ameresco and its predecessors have constructed billions in projects throughout North America.

For more information about Ameresco and our full-range of energy efficiency and renewable energy solutions, please visit ameresco.com.



The City of Miami Beach Police Headquarters will have a geothermal plant built on-site.

Services Provided (cont.)

Under this project, CMB wanted to utilize the savings yielded from multiple energy saving technologies to offset the cost of a comprehensive building improvement program designed to reduce the overall energy use and improve the working environment for employees and visitors.

Another key goal was to reduce operation and maintenance costs, while improving on-site staff efficiency through training. This in turn would improve building comfort and improve the operating efficiency of equipment. In order to help achieve these goals, Ameresco upgraded the heating, ventilating, and air conditioning system (HVAC), as well as, replaced or modified lighting components and/or fixtures to increase the energy efficiency of the lighting system.

Ameresco will provide a thorough staff training of the new equipment once installation is complete.

Ameresco's project includes:

- facility lighting and lighting controls to provide most of CMB's facilities with lighting and lighting control upgrades;
- domestic water conservation to provide water conserving fixtures such as toilets, sinks, shower-heads, ice machines and laundry facilities to reduce water use;

- HVAC controls to connect all of CMB's facilities into one energy management system (EMS) and provide upgrades so that building monitoring and controls are easily undertaken and energy conservation achieved;
- geothermal district cooling plant to provide three different elements: optimization of the chiller plant facility in the Convention Center; a geothermal source to enhance the efficiency of the cooling plant; and expansion of the cooling system to incorporate the distribution of chilled water to City Hall, the new parking garage, and adjacent buildings;
- and installation of energy efficient power transformers to provide for the replacement of older inefficient power transformers currently in CMB facilities.

In addition, Ameresco is building a geothermal condenser water cooling system at Police Headquarters that will intake underground water from an aquifer and reject the same amount of water back into the same aquifer in a closed loop configuration. The water will have a stable temperature of 78°F, which is different from the higher, weather dependent water temperatures provided by the existing cooling towers. This practice eliminates the need for cooling towers. The well water is a fairly constant temperature throughout the year, and is usually 20 to 30°F cooler than comparable condenser water from a cooling tower. The cooler condenser water allows the chillers to operate more efficiently throughout the year.



Ameresco completed a comprehensive lighting upgrade in the Flamingo Park Bath House. Above, a photo of light levels before the lighting retrofit.