

# Performance Contracting

## Cape Cod Community College

West Barnstable, MA

**Project Cost:** \$1.3 million

**Annual Cost Savings:** \$185,000

**Facility Description:** Public college campus with 12 buildings consisting of 302,494 square feet

**Contract Term:** 20-year Energy Savings Performance Contract (ESPC)



*“The project is a key element in this institution’s commitment to state-of-the-art technology and infrastructure to support it well into the new millennium. By combining modernization with significant financial benefits, we achieve our goals at little or no additional cost to the taxpayer and lay the foundation for future growth in a very fiscally responsible manner. NORESKO’s expertise and guidance through this process has been a critical element in the total project’s success.”*

Dr. Kathleen Schatzberg  
President  
Cape Cod Community College

NORESKO partnered with Cape Cod Community College to identify, design and engineer energy conservation measures that include a 200 kilowatt (kW) fuel cell generator as well as lighting, hot water heating conversion and energy management system (EMS) improvements. The project is providing a dozen facilities across the college campus with energy savings of about 15 percent and emissions-free electric power at an estimated savings of \$185,000 annually.

NORESKO identified, engineered, financed and implemented energy conservation measures designed to reduce energy consumption. The Company continues to be responsible for operation and maintenance of much of the equipment installed at the college.

NORESKO recommended a comprehensive package of measures that were installed between the period of Summer 1998 to Summer 1999. These measures included:

- Upgrading controls for the parking lot lights, replacing mercury vapor roadway and pathway lights with efficient high-pressure sodium lamps and ballasts, and replacing halogen downlights at the library entrance with high-pressure sodium lamps and fixtures.
- Replacing approximately 20 standard-efficiency motors with premium efficiency models.
- Converting cooking equipment located in the Commons Building from electric to gas appliances.
- Switching from an electric to fuel cell driven HVAC system, interconnecting the hot water discharge from the fuel cell to replace the electric hot water boiler and converting the six electric reheat coils in the ground floor mechanical room to hot water coils.
- Replacing all air handling unit (AHU) electric coils with hot water coils connected to a gas fired boiler.
- Replacing all AHU electric coils with hot water coils connected to a gas-fired boiler. Installing a new laboratory vacuum system.
- Installing variable frequency drives on selected air handling units to save electrical energy when fans are operating at part load.
- Upgrading old EMS and installing direct digital controls, integrating the Ethernet communications network with the EMS and enhancing the entire system.
- Installing 200 kW ONSI fuel cell power plant fueled by natural gas.

NORESCO is the nation's most experienced energy service company providing comprehensive and proven energy-efficiency solutions and infrastructure development and operations strategies to a wide range of customers. A recognized industry leader installing and operating over \$1.4 billion of proven energy solutions in diverse markets across the nation, NORESKO has built on-site energy infrastructure generating more than 300 megawatts of power, and has helped customers improve energy efficiency saving over 31 billion-kilowatt hours of electricity and 71 trillion Btus of fuel.



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