

VAMC Hampton UESC

Hampton, Virginia



Savings Information

- Annual Energy and Operational Savings over \$876,000

Project Size

- \$14.98 Million

Located along the shores of Chesapeake Bay, Hampton Veteran's Affairs Medical Center (VAMC Hampton) is a world class facility and leader in technology and innovation providing health care services to Veterans in Virginia and North Carolina. Seeking to improve its energy efficiency to enhance the campus infrastructure, VAMC Hampton collaborated with Dominion Virginia Power (Dominion) to undertake a Utility Energy Services Contract (UESC) for which Dominion competitively selected Energy Systems Group (ESG) to design and implement energy and water consumption reducing Energy Conservation Measures (ECMs) while improving facility infrastructure.

Strategies & Solutions

Cooperation between Dominion, ESG, and VAMC Hampton helped develop the project in a short time (approximately nine months from selection to Task Order award). This project includes significant work in the main hospital and over 30 buildings on the VA campus including the MRI building, women's health clinic, psychiatry and rehabilitation, boiler plant, dining hall, engineering shops, and administrative facilities. The chapel work included the refurbishment of 100-year-old stained glass windows.

Key Installed Technologies

- Installed LED lighting system inside all buildings throughout the campus, and replaced the exterior metal halide fixtures with LEDs
- Installed daylighting to gather and evenly distribute more natural light to the general population and psychiatric care waiting areas improving energy savings and enhancing services being delivered to veterans being served
- Installed two rain water collecting systems to capture and reuse rainwater
- Installed 36 air-handling unit (AHU) ultraviolet lights to eliminate or reduce organisms that build-up coils causing corrosion
- Upgraded the boiler plant controls, economizer replacements, and automatic blow down controls
- Provided water conservation upgrades throughout the VAMC
- Upgraded the compressed air system in five buildings
- Upgraded steam trap system (steam trap replacements, installed meters to monitor condensate return pump operation)
- Optimized central utility plant cooling by replacing two old chillers and installed one high efficiency 900-ton magnetic-bearing chiller and one 220-ton magnetic-bearing chiller with a 50-ton heat recovery system to decrease the net capacity by 510 tons.
- Installed a drain-back solar hot water system to supplement domestic hot water
- Removed existing stained glass windows of the chapel and restored off site. Installed solid vinyl frames and a new, one-inch thick covering to provide a properly vented thermal barrier to maximize preservation of the stained glass windows



Energy Systems Group (ESG) is a leading energy services provider that specializes in energy efficiency, sustainability, and infrastructure improvement solutions in the government, education, healthcare, commercial, and industrial sectors. ESG offers a full range of sustainable infrastructure solutions including waste-to-energy, distributed generation, and renewable energy.