



CASE STUDY

DEPARTMENT OF STATE

Retro-Tech Systems and RTS Water Solutions provided a large lighting, electrical, and water project for the US Department of State, located in our national capital of Washington, D.C., as a partner with a National Energy Service Company. The contract encompassed over 3.3 million sq. ft. within several Federal Buildings, including the Harry S. Truman Building, the National Foreign Affairs Training Center, the ICC Building, the Beltsville Information Management Center, and the Blair House. Special emphasizes were place on the project which included lighting design to measurement and verification to security expectations. This was a very high profile project in a very high security facility with significant historical requirements.

The US Department of State is our nation's lead U.S. foreign affairs agency with offices for the Secretary of State, the President's principal foreign policy advisor. The Department advances U.S. objectives and interests in the world with its primary role of developing and implementing the President's foreign policy.



The Client Challenge

As the nation's single largest energy user, the government is keenly aware of the need to not only conserve energy, but to invest in reduction measures that make good business sense. The goal of each project is to contribute to operational efficiency, energy conservation, and modernization of existing equipment and technology. To achieve some of these objectives, government entities have established energy policies including (EPACT 2005/ EISA 2007) to give guidance in achieving fully managed energy systems.

"By October 1, 2012, in accordance with guidelines established by the Secretary under paragraph (2), all Federal buildings shall, for the purpose of efficient use of energy and reduction in the cost of electricity used in such buildings, be metered."

The Lighting Solution

As part of the overall project, which included energy efficient lighting upgrades with occupancy controls and sensors, RTS also completed a metering project within seven buildings of the National Foreign Affairs Training Center. The scope of this project included the installation of 28 E-Mon D-Mon Electrical Sub metering Products and system re-wiring. The sub-meters were installed to monitor a broad range of energy data. The data collected from each sub-meter will assist the US Department of State in capturing the delivered energy (kWh), real power (kW),

apparent power (kVA), power factor (%), current load (A) and line-to-line voltage (V) for various systems such as HVAC, Lighting, Air Handling, etc. within each building. Previously, the NFATC was master metered thus understanding each facilities efficiencies and/or inefficiencies were a challenge. The E-Mon D-Mon sub-meters will allow for better managed facilities based on real time data.

The Results

These newly installed meters will enable our client to measure entire buildings, individual tenants or areas, specific pieces of equipment or individual circuits quickly and accurately. These meters are used for:

- Whole Building Metering
- Tenant/Departmental Cost Allocation
- Measurement & Verification
- Energy Management & Analysis
- Benchmarking & Profiling
- Building Automation System Integration

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