



Challenge

Kuakini Medical Center needed to make key equipment upgrades that were critical to the hospital's operations while also reducing energy use. Kuakini sought an energy efficiency (EE) financing solution that eliminated upfront costs and delivered immediate economic and environmental benefits.

Solution

Metrus funded 100% of the equipment upgrades at the hospital under its Efficiency Services Agreement (ESA). Kuakini had no capital outlay on the project and will make ESA payments based solely on actual performance and realized savings.

Success

The project is under construction and will generate \$1.1 million in savings annually. Kuakini was able to implement critical facility improvements without using its own capital or taking on new debt.

Project Summary

Kuakini Medical Center wanted to implement a series of EE measures and equipment upgrades that are critical for the operation of its 250-bed acute care hospital in Honolulu. Kuakini required a comprehensive solution that eliminated upfront costs and integrated the delivery of ongoing maintenance and project monitoring services.

Kuakini engaged Metrus to pay for 100% of the project design and implementation costs through its ESA financing structure. As a result, the hospital will see a 25% reduction in its total utility bill while conserving capital for its core operations and creating a more comfortable environment for its patients.



→ LOCATION:

Kuakini Medical Center
Hospital in Honolulu, Hawai'i

→ ENERGY SERVICES COMPANY (ESCO) PARTNER:

Energy Industries

→ ENERGY SAVINGS INSURANCE POLICY:

Energi Insurance Services

→ EFFICIENCY UPGRADES:

- New chiller plant
- Lighting upgrades
- Energy management system (EMS)
- New steam boilers
- Air-handling unit VFDs
- New booster pumps and fire pumps

→ PROJECT COST:

\$5.8 million

→ SAVINGS:

- \$1,100,000 in annual utility expense
- 3.5 million kilowatt-hours of electricity
- 10,800 therms of natural gas

→ ENVIRONMENTAL BENEFITS:

2,956 tons of CO₂ per year

Kuakini Medical Center

Under the ESA, payments to Metrus are an operating expense—just like a regular utility bill—except based on energy saved rather than energy consumed. ESA payments from Kuakini are set at a significant discount to the hospital's current utility rates and are based on cost per unit of avoided energy [i.e., a \$/avoided kilowatt-hour of electricity and \$/avoided therm of natural gas]. During the ESA term, Metrus pays for ongoing maintenance and other project-related services and repair and replacement of EE equipment.

In parallel to the ESA, Metrus entered into an Efficiency Services Performance Contract (ESPC) with Energy Industries, an ESCO with a strong local presence in Hawai'i, to design, implement and maintain the project. Metrus worked with Energy Industries to develop a project scope that achieved the technical and financial objectives of Kuakini.

Metrus engaged Energi, a specialized insurance company that provided an energy savings warranty to help mitigate performance risk on the project and provide independent verification of energy savings calculations.

Project Installation
Energy Industries installs the project and performs ongoing maintenance



Efficiency Services Agreement
Metrus funds 100% of project costs. Kuakini repayment is based on avoided energy use and reduced operating expense



Efficiency Services Performance Contract
Metrus and Energy Industries entered into a turn-key project installation and maintenance contract. Metrus pays for ongoing maintenance services and the measurement of project savings

The Kuakini project is also the first to take advantage of Metrus' Negawatts incentive which enables customers to receive their first 100,000 kilowatt-hours (kWh) of savings for free.

What's Next?

Project construction is underway and on schedule for completion in September 2014. Once the project is operational, Metrus and Energy Industries will monitor the performance of the EE upgrades and identify (and fund) new energy savings opportunities as they emerge. 

"Metrus developed an energy services program that allows us to save both energy and money while improving the environmental health of our hospital. Because Metrus provides all of the financial, technical and ongoing maintenance services for our retrofit project we can focus on what we do best: caring for our patients and community."

Quin Ogawa | Vice President of Fiscal Services and CFO, Kuakini Health Systems

Total Impact

→ Total Investment

\$ **5.8** MILLION

→ Total Savings

\$ **1.1** MILLION

→ Total CO₂ Savings

2,956 TONS

Metrus Energy, Inc. provides capital, project development and ongoing asset management services for energy efficiency projects at large commercial, industrial and institutional facilities. Through its comprehensive financing solutions, Metrus pays for all upfront and ongoing project costs, providing facilities with the immediate operational and environmental benefits of large-scale energy efficiency measures without the capital expense. By partnering with Metrus, businesses are able to treat energy efficiency as a resource to improve their bottom line and achieve corporate sustainability.



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