

CASE STUDY

BAE Systems, Merrimack



METRUS ENERGY

Challenge

The global aerospace and defense contractor wanted to reduce energy use with key equipment upgrades and building retrofits at its Merrimack facility. BAE sought a financing solution that not only eliminated upfront costs but could also be easily replicated across other facilities.

Solution

Metrus' Efficiency Services Agreement (ESA) was utilized to fund 100% of the energy retrofits installed at BAE's Merrimack facility. BAE had no capital outlay on the project and now makes ESA payments based solely on the actual performance and realized savings of the project.

Success

In the first year, savings for the Merrimack project exceeded expectations and spurred a multi-facility retrofit at four different sites under Metrus' ESA structure.

Project Summary

BAE Systems wanted to implement a series of energy efficiency upgrades across its entire U.S. facility portfolio, starting first with its 467,000 sq ft. Merrimack, New Hampshire site. BAE recognized that in order to roll out a comprehensive energy savings program, it required a scalable third-party financing solution that can fund a diverse mix of energy efficiency measures and technologies.

BAE engaged Metrus to pay for 100% of the project design and implementation costs at Merrimack through its ESA financing structure. Bringing in Metrus enabled BAE to immediately benefit from the financial, operational and environmental benefits of energy efficiency while conserving capital for its core business investments.



→ LOCATION:

BAE Systems
Manufacturing facility and regional office
Merrimack, New Hampshire

→ ENERGY SERVICES COMPANY (ESCO) PARTNER:

Siemens Industry

→ EFFICIENCY UPGRADES:

- Lighting Retrofits
- Building Automation
- Air Compressor Replacement
- Transformer Replacement
- Demand Control Ventilation
- Operational Best Practices

→ PROJECT COST:

\$1.1 million

→ SAVINGS:

- \$200,000 in annual utility expense
- 1,000,000 kilowatt-hours of electricity
- 31,000 therms of natural gas

→ ENVIRONMENTAL BENEFITS:

400 tons of CO₂ per year

BAE SYSTEMS

Project Installation
Siemens installed the project and performs ongoing maintenance



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

SIEMENS



METRUS ENERGY

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

BAE entered into an ESA directly with Metrus for the retrofit of its Merrimack facility. 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. Payment is based on cost per unit of avoided energy (i.e., a \$/avoided kilowatt-hour of electricity and \$/avoided therm of natural gas).

In parallel to the ESA, Metrus entered into an Efficiency Services Performance Contract (ESPC) with Siemens Industry to design, implement and maintain the project. Metrus worked with Siemens to develop a project scope that achieved the technical and financial objectives of BAE. Project construction was completed ahead of schedule.

The Merrimack project represented the initial phase of what is now an ongoing, multi-facility energy efficiency initiative under Metrus' ESA. Metrus is continuing to develop and fund meaningful building improvements, including the upgrade and replacement of key equipment, throughout BAE's U.S. business operations.

What's Next?

As of spring 2012, four projects have been developed and financed through Metrus' innovative ESA structure. Two initial projects at manufacturing facilities in New Hampshire and New York are now operational and generating more than \$500,000 in annual savings. Two additional projects in New Hampshire are under construction with detailed energy assessments in several other states underway.

“BAE Systems is committed to mitigating the environmental impacts of our business by becoming increasingly energy efficient. Metrus helps make complex projects easy to fund and implement with minimal disruptions to our ongoing operations.”

Don Hill | Facilities Director, BAE Systems' Electronic Solutions Business

Total Impact to Date

→ No. of Sites

4

→ Total Investment

\$8 MILLION

→ Total Savings

\$1.2 MILLION

→ Total CO₂ Savings

3,300 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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