

Contract Details

Contract Type:

Energy Savings Performance Contract;
Design, Build, Own, Operate, Training;
Measurement and Verification

Facility Size:

3.5 million square feet

Energy Project Size:

Construction & Financing: \$109 million
Operations and Maintenance, Service
Contracts, & Measurement and
Verification: \$3.6 million

Energy Savings:

\$4.9 million

Summary

Ameresco was selected by the U.S. Army Corps of Engineers to provide Energy Savings Performance Contract services, which included a full services repair, overhaul, and fabrication at Tobyhanna Army Depot. This military base was the largest single-installation Energy Savings Performance Contract project in the U.S. Army. Tobyhanna Army Depot is one of the first installations in the Army to utilize this budget-neutral program.



Two of the new decentralized gas-fired boiler plants at Tobyhanna installed to replace a coal-fired boiler plant.



Ameresco reduced Tobyhanna's emissions by converting the primary heating system fuel from coal to natural gas. Emissions were cut by 60 percent.

Customer Benefits

This program has reduced Tobyhanna Army Depot's overall energy consumption by 42 percent or 291,517 million British thermal units annually, which is significantly higher than the presidential mandate for energy conservation in federal facilities.

Environmental Benefits

By converting the primary heating system fuel from anthracite coal to natural gas, Ameresco reduced Tobyhanna's overall emissions by 60 percent. The army's partnership with Ameresco has the following annual carbon reduction equivalent:

- ▶ the reduction of 358 tons of CO₂ annually

The project helps reduce the need for energy from traditional power plants fueled by fossil fuels.

Services Provided

This project was divided into three energy conservation measures. The first measure replaced an antiquated coal-fired boiler plant with 10 new decentralized gas-fired boiler plants that hold 22 new boilers and 36 gas-fired air rotation units, and converted some existing oil-fired boilers to natural gas. A 13.5-mile, 8-inch high-pressure gas pipeline (OP 1,200 psi, operating at 450 psi) was installed to

provide natural gas to the Depot. In addition, a new, mostly underground distribution system was installed with approximately 6 miles of pipeline. The water saved by retiring the old, leaking steam distribution system and from repair and maintenance of the steam traps totals approximately 13.6 million gallons annually. The cost for the boiler decentralization project was \$29 million with an annual savings of \$4.54 million.

The second measure included a comprehensive lighting retrofit program throughout the facility at a cost of \$1.8 million and an annual savings of \$324,000.

The third measure include the addition of an energy management conservation system along with 2 miles of fiber optics to monitor and control the decentralized boiler plants and heating systems, as well as much of the existing HVAC equipment. The cost was \$275,000 with an annual savings of \$92,300.