



### Service & Product Provider Partner

#### **Ameresco**

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Business: Energy Services Company (ESCO)

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### Customer

#### **Elmendorf Air Force Base**

3CES/CEO 6326 Artic Warrior Dr, Elmendorf AFB,  
AK 99506

Business: United States Air Force  
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Maintenance

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**Elmendorf Air Force Base undertakes an Energy Savings Performance Contract with Ameresco focusing on a heating system decentralization that produced over \$5 million in savings in year one alone.**

### **Project Scope**

Through an Energy Savings Performance Contract (ESPC), Ameresco decommissioned and demolished an aging and inefficient central heating and power plant at Elmendorf Air Force Base in Alaska. As part of the contract, Ameresco added new distributed boiler systems in 130 facilities ranging from residential, commercial, industrial, and office spaces, encompassing approximately 1.5 million square feet. In addition, over 8 miles of natural gas pipeline were constructed to these facilities.

### **Project Summary**

Due to approximately 50 miles of deteriorating steam and condensate piping, Ameresco performed the decentralization of the existing central power plant. Ameresco installed decentralized boiler plants (including boilers, water treatment, required auxiliaries, and building structure) to serve each of the buildings that were provided steam from the central power plant.

- **Energy Savings**  
Elmendorf AFB saved 1,095,376 mmBtu/year, equivalent to \$3,711,053.
- **Investment**  
The initial investment for the project was \$48,841,031 with an annual recurring cost for the Operations and Maintenance of the boilers of \$534,138.
- **Financial Return**  
The project produces an average annual savings of \$5.58 M for the base. The project was structured to pay for itself with no initial capital outlay within a 22 year term. During the first year, a Measurement and Verification Report documented over \$5 M of energy additional savings.
- **Other Benefits**  
An expensive operations and maintenance contract for the central heating and power plant was eliminated. Also, electricity reliability was improved by upgrading the multiple points of electrical service. The cost of this project also covered the demolition and decommissioning of the older central plant and steam pits.

### **Monitoring & Verifying Energy Savings**

A measurement and verification plan was established that measured the energy savings in year one through direct utility metering. In each of the following years, boiler efficiencies are tested to ensure on-going savings.

### **Distinguishing Value**

Elmendorf AFB and Ameresco worked this project in a true partnership. Project requirements and customer needs were agreed upon and common goals were set from the start of the process. Elmendorf AFB has initiated a truly positive and beneficial long-term relationship with Ameresco.