

Air Force Enterprise Operational, Process, and Security Energy Dashboard Validation and Technology Transfer (Task N.0837)

Statement of Need

The United States Air Force (USAF) must reduce energy consumption and increase the portion of their renewable energy to meet a variety of Federal, DoD, and internal energy goals. In order to meet these goals, the USAF established a comprehensive energy program, led by the Office of the Deputy Assistant Secretary of the Air Force for Energy (SAF/ IEN). Under direction from SAF/IEN, the Air Force released its initial Energy Plan in 2010, followed by an updated plan in 2013. These Plans communicate enterprise goals, objectives, and metrics across all USAF functional domains and external audiences. In 2010, the NDCEE in coordination with SAF/ IEN developed an interactive, web-based reporting tool, the Air Force Enterprise Energy Management Framework Dashboard (AFEEFD) to provide centralized access to metrics and energy resources that support the Energy Plan. The Dashboard was further developed and demonstrated under Air Force Research Laboratory (AFRL) Task 0002 and NDCEE Task Orders 0742, 0809, and 0826. This Task is necessary to complete USAF requirements to develop, demonstrate, validate, and transfer the AFEEFD to the senior leadership and policy makers, which will provide them with a rapid, real-time energy metric and data tracking system in order to make effective investment and policy decisions.

Technical Approach

Validation will ensure that the expanded AFEEFD system operates efficiently within the senior level Air Force decision making process. The AFEEFD Modification Plan developed under Task 0826 will be modified to include modification of modules to the AFEEFD. The Technology Transition Plan (TTP) developed under Task 0826 will be amended to include a plan to transition the responsibility of new modules and update the AFEEFD in its entirety to SAF/IEN. The Final Report will summarize the approach used to validate and transfer the AFEEFD and the effectiveness of an enterprise level interactive dashboard capability.

Anticipated Results and Benefits

This Task is designed to ensure the AFEEFD is current with SAF/IEN's energy priorities. The NDCEE will focus on operational energy, process energy, energy security, energy in acquisition, and facility energy:

Operational Energy: 1) Integrate operational energy priorities in the enterprise governance structure; 2) Refine AFEEFD capabilities; 3) Develop and refine aviation energy metrics and investments; 4) Support the Operational Energy Budget Certification process; 5) Support Corporate AF entities; 6) Enable transition and sustainment of the Plug-in Electric Vehicle demonstration; 7) Enhance Operational Energy Adjudication Tables.

Process Energy: 1) Identify process energy groupings; 2) Develop methodology to identify and prioritize process energy efficiency improvement opportunities; 3) Identify best practices; 4) Provide updated Process Energy Policy Guidance

Memorandum; 5) Create a technological infrastructure in the form of an Industrial Control System (ICS) Policy Guidance Memorandum.

Government POC
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Status
Ongoing

Energy Security: 1) Develop energy security approach; 2) Build on previous efforts that determined current state of energy security; 3) Identify energy security investments; 4) Include policy gap analysis and risk-assessment in an Energy Security Policy Guidance Memorandum; 5) Evaluate existing NDCEE energy security efforts; 6) Draft an ICS Policy Guidance Memorandum.

Energy in Acquisition: 1) Develop and oversee Energy Key Performance Parameter implementation; 2) Develop framework focusing on integrating energy as a consideration into system development and procurement; 3) Execute Analysis of Alternatives workshop; 4) Incorporate findings into an Acquisition Energy Framework.

Facility Energy: 1) Develop Facility Energy Framework; 2) Develop facility energy metrics; 3) Investigate Energy Savings Performance and Utility Energy Service Contracts; 4) Develop benchmarking guidance for the USAF.

This effort will be considered a success after the capabilities have been validated and modified with the guidance of SAF/ IEN and a clear TTP is in place and being executed.

Technology Transfer and Outreach

The NDCEE will leverage the TTP developed under Task Order 0826 to develop a plan for transitioning the responsibility of new modules and updating the AFEEFD in its entirety to the SAF/IEN. Using lessons learned from previous efforts, the TTP will focus on identifying the appropriate stakeholders to manage data entry and sustainment.



Air Force Enterprise Energy Management Framework Dashboard Developed by NDCEE



Executive Agent Office of the Assistant Secretary of the Army for Installations, Energy and Environment

