Energy as a Service

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Overview

Definition

Current Drivers

Air Force Vision

Next Steps
DEFINITION
A long-term arrangement with a single entity to meet the fence-to-fence electric power needs of an Air Force installation using the necessary acquisition authorities.

This arrangement will comprehensively address: (1) the operation of and investment in the on-base electric utility system, (2) the procurement of supply and (3) the implementation of energy conservation measures.
CURRENT DRIVERS
Multiple Priorities

Meet statutory, regulatory, policy and guidance on EE, RE & sustainability

Conserve and prioritize limited resources

Ensure system reliability despite fiscal constraints

Pursue innovation and ensure sufficient energy for mission needs
Inefficiencies

- Various acquisition authorities and direct investments to meet multiple priorities

- Piecemeal approach leading to siloed, incomplete understanding of opportunities and results at the installation level

- Increased costs to Air Force to manage multiple solicitations and portfolios
Congressional Perspective

- Specific sections address energy assurance and integration of installation energy authorities
- Encourage DoD to...
  - “leverage and integrate existing authorities to ensure installations have resilient, available, reliable, and continuous power”
  - “interpret and integrate its existing authorities to support holistic approach”

HASC Report 114–537 (page 106, 107) to accompany H.R. 4909, the National Defense Authorization Act For Fiscal Year 2017
THE VISION
The Toolbox Approach

Comprehensively Address:

1. On-base electric utility system
2. Supply
3. Energy conservation measures

O&M, Capital Investments
Mandates
Mission Assurance
Cost Reductions
Market Changes

- Rethinking how energy is produced, distributed and used

- Electricity Industry Changes
  - Technology Advancements
  - User-Level Behavior
Energy as a Service 1.0
In the 1880s, Edison started by selling lightbulbs and light, not kWh

Transport as a Service
The sharing economy demonstrates value of end state (transportation), over the means (personal car)
The Air Force Vision

Buy the Capability, Not Just the Commodity

- Ensure the Air Force has the power *when, where and how* it’s needed so airmen can focus on the mission

- Harness all resources to ensure **efficient, effective operations**

- Shift focus from the business of energy to the value of **enhanced energy assurance**
Energy Assurance should be . . .

- **Holistic** – encompass reliability, efficiency, resiliency and flexibility

- **Integrated** – create key linkages across lines of effort to eliminate silos and increase effectiveness

- **Continuous** – go beyond single events and points of failure to make assurance a day-to-day effort
NEXT STEPS
Areas of Exploration

Buy the Capability, Not Just the Commodity

- Coordination of Expertise?
- Guaranteed Efficiencies?

Enhance Energy Assurance

- Packaged Authorities?
- Evolving Priorities?
Lines of Effort

Scope Definition
- Conduct outreach for input and lessons learned
- Present concept to stakeholders and industry

Site Selection
- Select pilot installation
- Develop energy profile for RFI

Request for Information
- Establish RFI objectives
- Outline evaluation criteria for responses
GOAL: Leverage stakeholders at all levels to gather expertise and lessons learned for comprehensive EaaS solution

PROCESS: Conduct outreach, gather lessons learned
- Air Force Energy Managers’ quarterly webinar
- Ohio State University

PROCESS: Present to stakeholders and industry
- Federal Utility Partnership Working Group
- Defense Energy Innovation Summit
Case Study: Ohio State University

- GOAL: Strengthen sustainability efforts via innovative energy strategy while providing new resources for academic mission

- PROCESS: Active solicitation for Comprehensive Energy Management through private partnership

Phase 1: RFQ (completed June 2015, 44 responses)
Phase 2: RFI (completed Feb. 2016, 40 groups/companies)
Phase 3: RFP (currently in due diligence)
Pilot Installation Selection

- **GOAL:** Select installation as host to demonstrate concept

- **PROCESS:** Complete screening for candidate bases, factoring in:
  - Existing energy projects and authorities
  - Viability to leverage 3rd party financing

- **PROCESS:** Develop energy profile for RFI
  - Conduct site visit
  - Gather detailed energy data from base personnel and databases of record
GOAL: Release RFI by early 2017

PROCESS: Define objectives for RFI with focus on areas of exploration:
- Execution pathways
- Barriers to comprehensive approach
- Evaluation criteria in Request for Proposal process

PROCESS: Draft RFI using objectives and installation profile

PROCESS: Outline evaluation criteria for responses
Questions?

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