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Energy Savings Contracting UESC and ESPC

August 16, 2010

Energy Conservation - Background

Energy Conservation Drivers

- Energy Crisis in the 1970's
- Revised Ventilation Standards
- Development of Energy Efficient Products and Systems (Variable Speed Drives, High Efficiency Lighting and Motors)
- Computerized Energy Management Control Systems

Construction Contracting - Background

Traditional Construction Contracting

- Design/Bid based on first cost not LCC
- Value Engineering utilized for cost reduction
- Inadequate O&M Budgets for existing facilities
- Reluctance to specify new, energy efficient equipment/systems

Energy Savings Contracts

Energy Efficiency Contracting Mechanism

- Focused on existing facilities
- LCC Analysis used instead of low first cost
- Financed from energy savings concept – minimize impact on O&M budgets
- Design/Build – Guaranteed Performance

Federal Market

Energy Savings Contracts

- EPA Act 1992 Requirements
- Contracting mechanism needed to meet energy conservation goals for federal facilities
- Two types of contracts – UESC and ESPC

Contract Options - UESC

Utility Energy Service Contract (UESC)

- Work performed under agreement between local serving utility and a federal agency
- Contracting authority – Energy Policy Act of 1992 (42 USC § 8256), EISA of 2007, National Defense Authorization Act of 2007 (10 USC § 2913), FAR Part 41: Acquisition of Utility Services and EO 13423
- See FEMP UESC Enabling Documents (<http://www1.eere.energy.gov/femp/financing/uesc.html>)

Contract Options - ESPC

Energy Savings Performance Contract (ESPC)

- Two federal IDIQ contracts (DOE and DOA) available in all 50 states and U.S. territories
- *DOA Policy Guidance of Implementation on an ESPC* (dated November 2008) applies to both contracts
- Contracting authority – Energy Policy Act of 1992 (42 USC 8287, 42 USC 8251 – 8261), the EPA of 2005, and EO 13423

UESC Model Agreements

Contracting Options

- Attach to GSA Areawide Contract
- Attach to separate installation contract
- Create a “stand alone” contract DoD and Civilian Model Agreements
- Different definitions of “energy conservation measure” and “energy conservation project”

UESC Process

Varies by Agency

- Air Force: Five step program
- Navy: Nine step program
- General steps:
 - Audit
 - Feasibility Study
 - Engineering and Design
 - Installation
 - Payment and Performance

UESC Process (continued)

Project Initiation

- Utility Rep
- Federal Agency Request
- Third Parties

UESC Process (continued)

Vendor/Subcontractor Selection

- RFQ Process
- Agency Preference/Experience
- Utility Preference/Experience
- Special Expertise

UESC Process (continued)

Preliminary Audit (PFA, PAR)

- Done by utility at risk
- No cost to agency

Energy Conservation Proposal (ECP) Development

- Engineering & design by utility at risk
- No cost to agency unless they decline a financially viable project

UESC Process (continued)

Contracting

- Agency-utility contract, subcontractor contracts, financing contracts developed concurrently
- Agency-utility negotiations

UESC Process (continued)

Implementation

- Construction managed by utility or designee (superintendence requirements)
- Utility paid on mutually agreed basis (typically % complete or schedule of values)

UESC Process (continued)

Acceptance

- Remainder of funding to utility by agency (appropriated funds) or by financier
- Payment stream assigned to financier (optional)
- Utility handles billing per contract

UESC Process (continued)

Performance Verification

- Verification of performance by utility per FEMP recommendations
- Utility must correct any deficiencies
- Typically no performance guarantee by utility

UESC Resources

Federal Utility Partnership Working Group (FUPWG)

http://www1.eere.energy.gov/femp/financing/uescs_fupwg.html

FEMP UESC Workshop

http://www1.eere.energy.gov/femp/financing/uescs_training.html

FEMP - UESC DVD Video

- Deb Beattie 303-384-7548

Model Agreement and Explanation (AFMESA and AFEXPL)

<http://www.afcesa.af.mil/ces/urmt/index.asp>

ESPC Overview

Two IDIQ Contracts awarded in December 2008:

– Department of Energy

- Ordering authority delegated to local agency-level Contracting Officers
- \$5 billion contract value per ESCO
- Maximum 25-year finance term
- 50-state and U.S. territory coverage

ESPC Overview

Two IDIQ Contracts awarded in December 2008:

– Department of the Army

- Non-localized contract ordering authority (managed by CEHNC)
- \$700 million total contract value (plus \$200 million small business set-aside)
- Maximum 25-year finance term
- 50-state and U.S. territory coverage

ESPC Selection Process

Government-Initiated Selection Process

- Agency develops solicitation procedures and publishes on a website a notice of anticipated project requirements, to which ESPC awardees may respond
- ESCOs submit to agency formal notification of intent to submit PA
- Agency reviews submitted PAs and selects ESCO

ESPC Selection Process

(continued)

Contractor-Initiated Selection Process (DOE only)

- ESCO requests and granted approval to prepare/submit a preliminary assessment (PA)
- Agency publishes a notice of receipt and invites other ESPC awardees to submit competing PAs
- Agency may award a task order to ESCO or proceed to Government-Initiated selection method

ESPC Process

- Project Facilitator appointed
- Kick-off meeting held
- Agency requests that selected ESCO prepare and submit an IGA
- Agency reviews IGA and may award TO after acceptance of IGA
- ESCO prepares and submits Final Proposal and agency awards TO after acceptance of Final Proposal, if TO not previously awarded

ESPC Process (continued)

- ESCO completes final design and manages project construction
- ESCO commissions newly-installed equipment
- Agency inspects and accepts project and begins making payments
- ESCO performs post-implementation M&V and begins O&M responsibilities
- ESCO continues ongoing O&M, repair/replacement, and M&V for duration of contract term

Contract Differences

- ESPC available to all federal facilities, UESC limited to local serving utilities with energy services capability
- Energy savings guaranteed/M&V throughout contract term with ESPC
- UESC typically quicker to implement and less costly

ECM /Technology Examples

- Boiler Improvements/
decentralization
- Chiller Improvements
- Building Automation /SCADA
/Metering & Monitoring
- HVAC System Improvements
- Lighting Improvements
- Building Envelope
Modifications
- Compressed Air Systems
- Specialty Buildings (Labs,
Data Centers, industrial etc.)
- Electric Motors and Drives
- Smart Grid Applications
- Renewable Energy
Generation
- Water Conservation
Measures
- Thermal Energy Storage
- Fuel Cell Technologies
- Retro-commissioning

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Questions

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