



• August 15-18, 2010 • Dallas, Texas •
• Dallas Convention Center •



ESPCs – Assuring Savings
Scott Trotier, Northrop Grumman

Objectives

- DOE IDIQ Contract Areas Relating to Assuring Savings



– Focus Areas

- Performance Assurance
- Operations & Maintenance
- Measurement & Verification

Performance Assurance

- Specifications / Statement of Work (Ref. B.1, C.1.1, C.2.1, C.2.2, C.6, C.7, C.8, C.9 Attachment J-3 DOE IDIQ and IGA)
- Facility Performance Requirements (Ref. C.3 DOE IDIQ)
- Design and Construction Standards (Ref. C.5.2 DOE IDIQ)
- Inspection & Acceptance (Ref. E.2, E.3.2 DOE IDIQ)

Operations & Maintenance

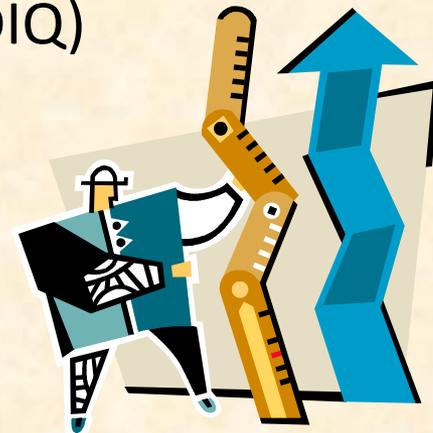
- Operation of ECMs (Ref. C.6, H.6.3.B.3.c DOE IDIQ)
- Preventive Maintenance of ECMs (Ref. C.7, H.6.3.B.3.c DOE IDIQ)
- Repair of ECMs (Ref. C.8, H.6.3.B.3.c DOE IDIQ)
- Contractor Maintenance and Repair Response Time (Ref. C.9 DOE IDIQ)
- O&M Manuals and Training (Ref. C.10 DOE IDIQ)
- Reporting - (Ref. H.6.3.B.3.C, J-8.2.4)

Measurement & Verification

- Measurement and Verification of ECM Performance (Ref. C.4 DOE IDIQ)
- Risk, Responsibility and Performance Matrix (Ref. C.4, H.6.3.B.3.b, Attachment J-7 DOE IDIQ)
- Site Specific M&V Plan (Ref. C.4.6A, c.4.6B, H.6.3.B.2a, Attachment J-8 DOE IDIQ)
- Baseline (Ref. C.4, H.6.3 DOE IDIQ)
- Install and Commission Equipment & Systems (Ref. C.5.4, H.6.3.B.2.b DOE IDIQ)

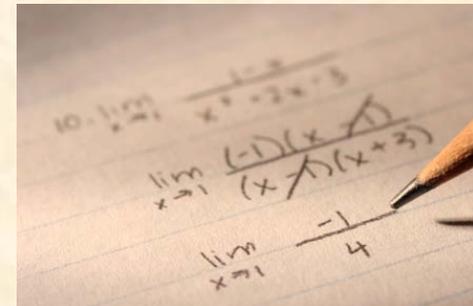
Measurement & Verification con't

- **Government Witnessing of M&V Activities** (Ref. C.4.6 B, Attachments J-8.2.3 & J-8.3.2 DOE IDIQ)
- **Post-installation Report** (Ref. C.4.6 C, Attachment J-9 DOE IDIQ)
- **Annual M&V Report** (Ref. C.4.6 D, C.6.4, C.6.5, C.7.4, C.7.5, Attachments J-8.2.3, J-10 DOE IDIQ)



Measurement & Verification con't

- Key Question
 - What specific measured value or values are under the ESCO's control that could result in a shortfall in savings?



Measurement & Verification con't

- Example A
 - Boiler Replacement with Savings Determined from Analysis of Baseline and Reporting Period Data which Consisted of Combustion Efficiency Tests
 - Combustion Efficiency Tests Performed at Commissioning and Annually thereafter
 - Maximum Deviation Established in Contract
 - Preventative Maintenance and Repair & Replacement Responsibilities Explicitly Defined

Measurement & Verification con't

- Example B
 - Utility Management Control System
 - Performance Category (equipment, operations, preventive maintenance, repair & replacement)
Excluded from Risk, Responsibility and Performance Matrix
 - Baseline Not Calibrated
 - Computer Simulation (Option D) without any post installation updates for performance or operating factors

Who's Responsible for Making it Happen?

Project Facilitator

Budgeting

Environmental

Contracting

Project Champion

Master Planning

Maintenance

Engineering



So, to Ensure Savings...

- Engage the Contracting Office, Project Facilitator, Engineering, Maintenance, Master Planning, Environmental, Budgeting, etc. early in the process
- Carefully define your needs, and verify that they are specified in the task order
- Identify a Project Champion
- Coordinate, Coordinate, Coordinate



Resources

- Scott Trotier, PE, CEM, Leed AP, Northrop Grumman, Support Contractor for DLA-Energy, 410-750-7475, scott.trotier.ctr@verizon.net
- Department of Energy, Federal Energy Management Program
<http://www1.eere.energy.gov/femp/financing/espcs.html>