



Implementing Energy Efficiency Using ESPC

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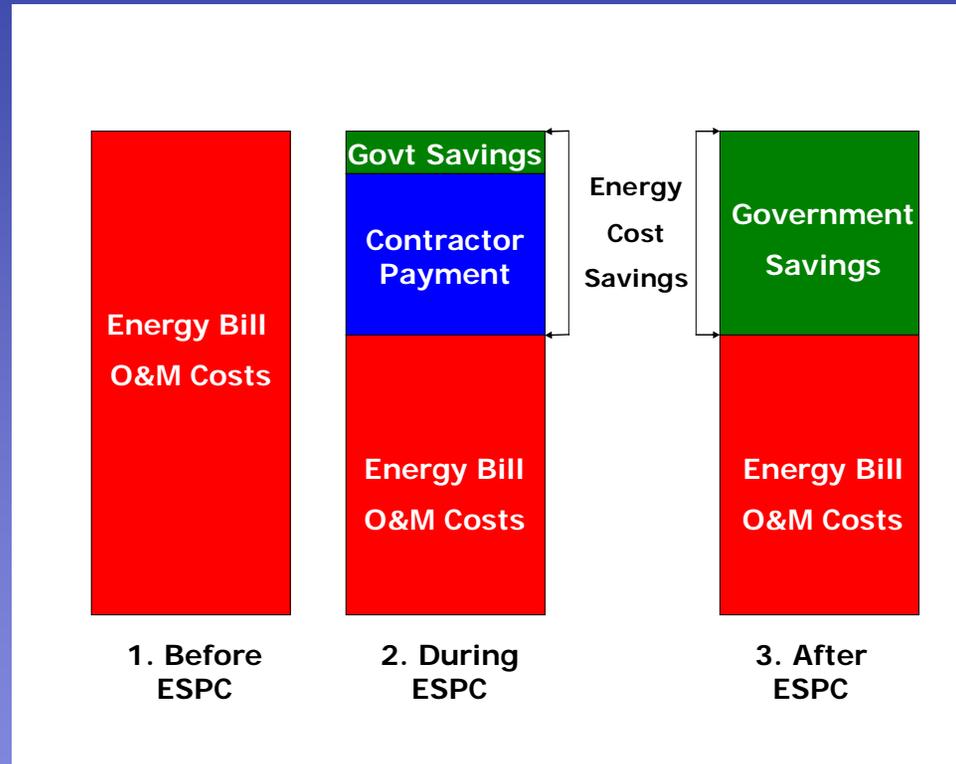
Discussion Items

- ESPC Overview/Background
- Federal Market vs. Other Markets
- Pros & Comparisons
- Keys for Successful Projects



Reminder of How It Works

- **Before ESPC:**
 - Funds are wasted on energy and O&M costs
- **During ESPC:**
 - Private Sector finances, installs and maintains new energy efficient equipment, at no upfront cost to government
 - Energy Savings are guaranteed by contractor
 - Government pays off investment with Savings on utility bill
- **After ESPC:**
 - Government keeps the savings after investment is paid off





History of ESPC

- Over 300 projects throughout the Federal Government
 - Over \$1.8 billion in private sector investment
- Energy savings
 - 14.4 trillion Btu annually = 143,000 households or a city of a half million
- Dollar Savings
 - \$5.0 Billion Total
 - \$3.5 Billion Investment payback
 - \$1.5 Billion** Net savings to government



ESPC Example Twenty Nine Palms Marine Base, California

- \$65 million in projects privately financed
 - New chilled water plant and air conditioning upgrades
 - Dual-Fueled 7.5 megawatt co-generation plant
 - 8 acre, 1.1 megawatt photovoltaic solar farm
- Result: \$6.9 million in guaranteed savings annually for a total savings of \$138 million over 20 years.





Twenty Nine Palms ESPC Ancillary Benefits

- New chilled water plant
 - Improved quality of life for Marines in barracks
 - Additional capacity for new barracks saving MilCon
- Dual-Fueled Co-Gen Plant
 - Energy Security: If a disruption in natural gas, system can immediately switch to diesel fuel stored on base (2 week supply)
 - New gas lines buried in concrete casing for additional security
- Photovoltaic Solar Farm
 - Renewable energy source
 - Provides 7% of base electric load





Non Federal Markets

Super ESPC Derived From Best Practices;
However...

- Significantly Shorter Development Time
- Extensive Use of Non Energy Savings
- Shorter Contract Terms
- Understand Cost of Inaction
- Favorable When Compared to Other Options



Pros of ESPC

- Concept Used for 20+ years
- Bundled/Comprehensive Projects
- Super ESPC Allows Many Energy Efficiency Measures
- Guaranteed Savings
- Endorsed by Congress and President





Pros of ESPC (cont.)

- Faster Tool for Federal Project Implementation
- May Include O&M
- Most Widely Used Procurement Tool
- Contracting Oversight to Insure Success
- Commissioning Plan Required





ESPC Comparison

	Traditional – Bid/Spec	ESPC
Financial	Appropriations/Up front	Financed/Paid from savings
Relationship	During Construction & warranty period	Throughout Contract term (up to 25 yrs)
Guarantees	None	Energy
Change Orders	Typically	None



ESPC Comparison (cont.)

How Does It Compare With Other Procurement Options:

- Traditional Appropriated Projects (Bid/Spec)
- UESC
- EUL

Different Tools – Choose What Meets Your Needs!



Keys for Successful Projects

Beginning with the Site's Objectives...

- Understand Expectations
- Involve Key Decision Makers Early
- Set Reasonable Timeline
- Prioritize Facility Improvements to pursue (remember ESPC's are bundled projects)
- Regular Updates to Keep Everyone informed
- Keep Overall Project Goals in Focus



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