

Introducing...

**Energy Saving  
Improvement Programs**  
aka: ESIP; ESCO; P.L. 2009, c. 4; A-1185

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# What ESIP is All About

- Retrofitting public facilities with Energy Conservation Measures (ECM) without new capital investment
  - Savings from reduced energy use pays for the improvements = No New Money!
- Applies to all government contracting units
- Not your father's Energy Services Company (ESCO) law – it's different

# ECM Categories:

- Distributed generation (solar, wind, geo, bio...)
- Major HVAC (capital) and minor HVAC (non-capital)
- Energy efficiency, demand response equipment (C. 83)
- Non-energy savings related (building envelope)
- Future capital replacements
- Standalone lighting improvements
- New energy related capital improvements, i.e., new air conditioning installation in un-air conditioned facility
  - Must be funded separately from non-operating (i.e., capital improvement) funds
- **Water savings, i.e., low flow fixtures**

# Two contracting models:

- Plan A - Agency hire an ESCO
  - ESCO is a single contractor that develops and manage the process – and can guarantee savings
  - Use public bidding or competitive contracting process to award a contract to a firm – an “Energy Services Company” to develop & manage construction of improvements.
  - Contract award is for “most advantageous, price and other factors considered process” or “lowest responsible bidder”

# Plan B – Do-It-Yourself

- Hire an energy consultant to develop your Energy Savings Plan
- Develop your own specs and bid the job...
- ...Or hire professionals to do that work
- Rely on built-in verification process to assure savings

# Conditions for Success

- Regardless of which model is chosen, the success of the project and accrual of savings depends on:
  - A solid, well-thought out plan
  - Competent construction and installation
  - Ongoing maintenance
- If any are skimped, the public loses and cost and energy savings lost!

# Develop the ESIP

- **Step 1** – Perform independent audit
  - Third party – not the ESCO
- **Step 2** – Hire ESCO or manager to prepare Energy Savings Plan
  - If competitive process, use the audit as basis for proposals
  - ESCO must agree to provide an optional energy savings guarantee
- **Step 3** – Develop Energy Savings Plan
  - Identify the Energy Conservation Measures and projected energy savings
  - Savings based on BPU adopted standards

# About Those Standards

- Energy savings calculations:
  - Based on BPU adopted standards: i.e., International Performance Measurement & Verification Protocol (IPMVP) or equal
  - Includes state & federal rebates & tax credits
- BPU required to adopt:
  - Interest rate standards & uniform values for escalation of labor, electricity, oil, & gas
  - Standard costs of life cycle & net present value format
  - Standards for Global Warming Reduction Act and carbon reduction obligations

# About ESCO Guarantees

- Why a guarantee? To ensure energy savings are met.
- Owner and ESCO **may** enter into long term guarantee contract for up to 15 years
- An ESCO must provide a proposal for a long term guarantee as part of the ESP
  - Full cost disclosure (short and long term costs)
  - Can be for any number of years
  - Must provide for ongoing third-party validation of savings & guarantee (paid by owner in operating budget)
  - Maintenance costs must be publicly bid

# More on Guarantees

- Guarantees not required:
  - The audit and verification steps are intended to offset the need for a guarantee
  - Key elements are maintenance and regular verification which are also part of an ESCO guarantee
- Owner formally decides to accept the guarantee in the ESP

# Continuing On...

- **Step 4** - 3<sup>rd</sup> party verification of plan
  - Ensures calculations were done properly
  - Savings calculations does not include Energy Audit & Energy Savings Plan verification costs
  - Costs can be added to financing package
  - Initial auditor can do verification
- **Step 5** – Make decisions, approve plan and file with BPU

# Step 6 – Design and Bid

- ESCO or Engineer designs and prepares specs
- ESCO or Owner advertises and receives formal bids per the agency's contracting laws: i.e., Local Public/Public Schools Contracting Law, plus
  - Bid security, Bonding, Prevailing Wages, Public Work Contractor Registration, Prompt Payment, and all related laws for owners and their contractors
  - Subsidiaries owned by Contractor cannot bid on work
  - Specifications affecting State or national codes prepared by individuals properly licensed or certified
  - All contractors and professionals must be DPMC listed or classified – this is new for LPCL agencies.

# An Exception from Competition

- If the ESCO makes its own “Direct Digital Controls” and the project is guaranteed, the controls can be specified without a competitive process
  - i.e., Honeywell, Johnson Controls, Siemens, Trane
  - Control systems must be open protocol & meet standard interoperability guidelines
- Spec must provide an “allowance” – the cost of the controls used by all bidders.
  - Ensures manufacturers do not favor contractors – everyone pays the same price for the parts
- Installation work part of the bidding process – no contractor is favored

# Step 7 – Construction

- Contracts awarded by owner or ESCO
- Construction Management
  - ESCO or separate CM to manage and oversee project schedules, installations, performance, quality and approves payment to subcontractors
- All administrative and fiscal procedures are managed pursuant to public works construction laws

# Step 8 - Completion of Work

- Commissioning after construction to get it operating property
  - Initial auditor or ESP verifier can do verification
- 3<sup>rd</sup> party verification required to validate projected savings after commissioning
  - Required to do financing
- Implementation of any energy savings guarantee
- As part of maintenance, require periodic “tune-ups” to make sure standards are being met

# Step 9 – Project Financing

- Public agency arranges issuance of “energy savings obligations” to finance improvements
  - Lease-purchase/capital leases or Refunding Bonds
  - Project financings must match payback life to maturity schedule
- Refunding Bonds and Debt Service
  - As full faith & credit debt does not require voter approval
  - Does not count against debt limit
  - BUT ESIP debt service will NOT BE exempt from appropriation and tax levy caps or eligible for school debt service aid

# More Project Financing

- Financing cannot include:
  - Maintenance agreements for equipment under warranty
  - Maintenance services after warranty periods have expired
- Financing can be by the public agency, ESCO, or another public agency (i.e., EDA or County Improvement Authority)
- All agencies are granted authority to use operating budget funds to repay Energy Savings Obligations (DLGS and DoE working on details)

# The Beginning?

Watch for Local Finance Notices  
on ESIP and PPA Coming Soon!