

# **Enabling Mass-Scale Financing for Federal Energy, Water And Sustainability Projects**

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# Why ENABLE?

- \* Requirements for increased federal energy and water efficiency as well as reduced greenhouse gas emissions and sustainable federal facility operations have increased substantially over the past few years.
- \* Requirements are most likely to become even more challenging in the years to come.
- \* Fill the gap

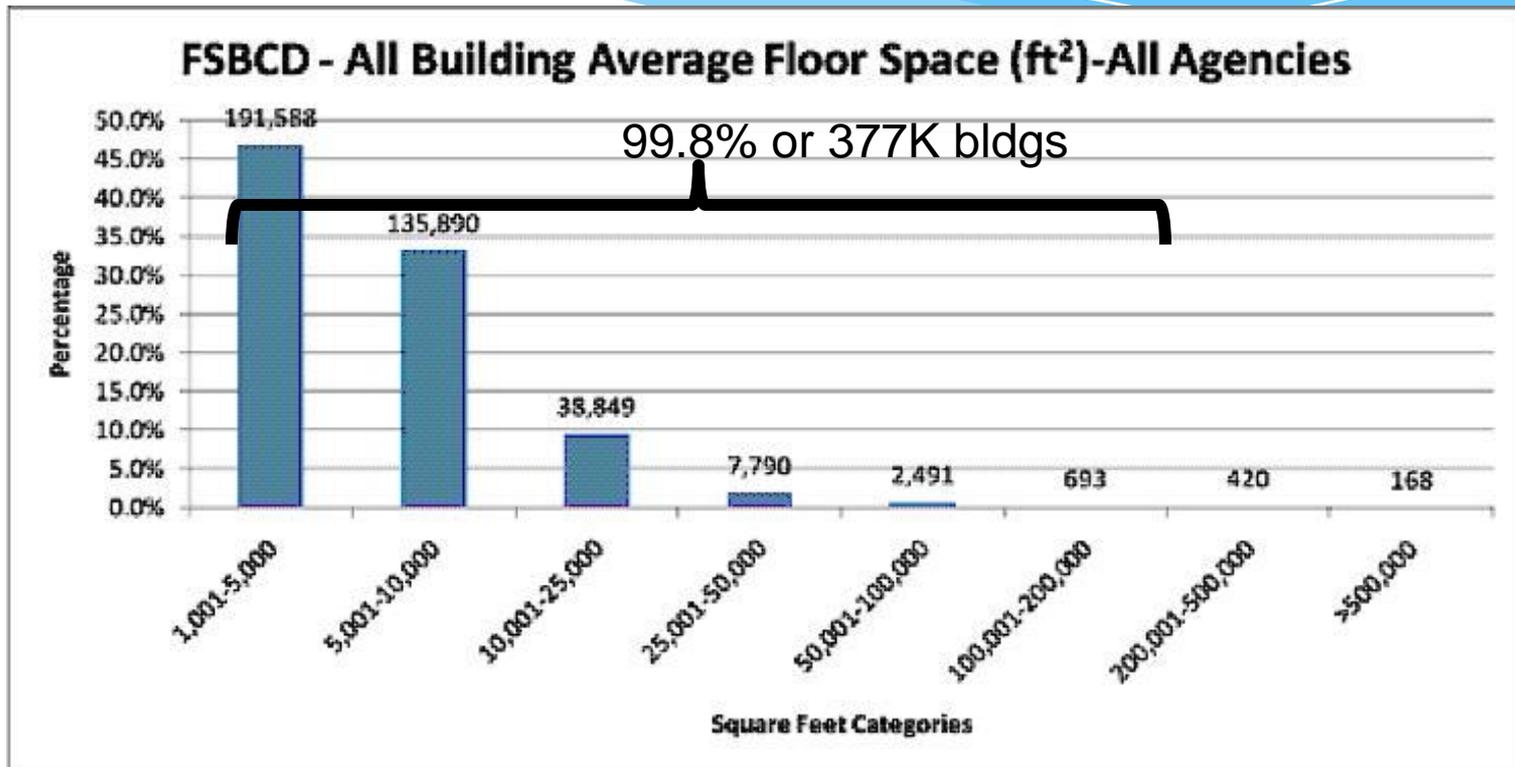
# EISA Audits

The requirement to perform energy audits on “covered” federal facilities will result in about 20-25 thousand buildings audited per year for the foreseeable future

- \* The requirement to commission existing buildings wherever deemed to be practicable will be significant.
- \* FEMP estimates required investment: \$1 billion per year

# Potential Market for ENABLE

About 99.8 % of federal buildings are under 200,000 sq.ft.



Source: Federal Site Building Characteristics Database of 377,889 buildings

# Potential Market (cont'd)

- \* 150,000 buildings totaling about 1.5 billion sq.ft.
- \* At an average annual energy expense of \$1.50 to \$2.00 per sq.ft., these buildings account for \$3.5 – \$4.7 Billion annually in energy expenses
- \* ENABLE's goal is to capture 10% to 20% savings on average with projects in the 5-10 year simple payback range = finance a total of up to \$8 Billion in projects, tune-ups and retro-Cx

# Potential Market (cont'd)

|                         | Market Range     |                  |                  |
|-------------------------|------------------|------------------|------------------|
|                         | Low              | Medium           | High             |
| Bldg s.f.               | 1,500,000,000    | 1,750,000,000    | 2,000,000,000    |
| Annual energy cost/s.f. | \$1.50           | \$1.75           | \$2.00           |
| Annual energy Cost      | \$ 2,250,000,000 | \$ 3,062,500,000 | \$ 4,000,000,000 |
| Annual Savings          | 10%              | 15%              | 20%              |
| Annual Savings \$       | \$225,000,000    | \$459,375,000    | \$800,000,000    |
| Payback Range (yrs)     | 5                | 7.5              | 10               |
| Investment needed       | \$1,125,000,000  | \$3,445,312,500  | \$8,000,000,000  |

# Where's the Money?

- \* Forecast: appropriations for all federal facilities operations and maintenance and capital investment will actually be going DOWN.
- \* Dilemma: how to comply with all of these mandates when the Congress provides no resources with which to accomplish anything?

# Existing Options

- \* The traditional Energy Savings Performance Contract (ESPC)
- \* Utility Energy Services Contracts
- \* Other means of acquiring financing for federal projects, including state programs and utility rebate/incentive programs

# FEMP's Goal for ENABLE

- \* DOE/FEMP is interested in developing a method of financing that would:
  - \* Target to buildings under 200,000 s.f. and/or projects under \$500K capital investment (not including finance costs)
  - \* Provide a streamlined and highly automated process that leads to project construction starts within three to six months of initiation
  - \* Finance a select category of pre-defined and straightforward projects with simple paybacks under 10 years
  - \* Be attractive to financiers on a wide scale
  - \* Include basic levels of M&V for all ECMs to demonstrate energy and water savings and to comply with EISA reporting requirements.

# ENABLE Elements

- \* Provide a fast track process for feds to get projects reviewed, approved and in the ground as quickly as possible while maintaining technical, legal, contractual, and financial integrity. This would include:
  - \* Procedures to go directly from EISA energy audits to funding methods.
  - \* Ensuring that EISA audit recommendations are implemented as soon as possible
  - \* A ready source of financing for qualified ESCOs
  - \* A maximum six month cycle time from initiation of request by an agency to a signed contract with an ESCO.

# ENABLE Elements

- \* Special consideration for O&M and retro-commissioning
- \* Standard procedures for common ECMs
- \* Simplified and standardized M&V/acceptance procedures
- \* Rely on existing statutory authority for third party financing
- \* Use existing contracting vehicles
- \* If needed Initiate a DOE HQ IDIQ contract for small federal sites/projects and small businesses

# ENABLE Elements

- \* Pre-qualified list of small ESCOs ready and able to assist federal facilities with:
  - \* Energy and water audits
  - \* Renewables assessments
  - \* Completion of ECMs, including
    - \* Retrofits, repairs and replacements
    - \* Building tune-ups
    - \* Testing and balancing
    - \* Existing building commissioning
    - \* Ongoing commissioning
    - \* ESPC retro-commissioning M&V services

# Possible Short List of ECMs

- \* ECMs covered under ENABLE would be those that:
  - \* Require minimal engineering/design
  - \* Don't require extensive M&V beyond project acceptance, such as:
    - \* Lighting
    - \* Motion/occupancy sensors
    - \* Daylighting
    - \* Water retrofits
    - \* Pump/motor replacements
    - \* Storm windows
    - \* Retrofit packaged units
    - \* Vending machine economizers
  - \* O&M, tune-up or Cx efforts with low cost and very short paybacks.

# ENABLE Elements

- \* A well-defined, highly automated and simplified process (less than 6 months) for federal agencies
- \* A simplified M&V strategy that will assure compliance with EISA performance tracking requirements.
- \* An on-line application process that manages the critical path and tracks each project in accordance w/EISA

# Similar State Programs

**Iowa Building Energy Management Program provides:**

<http://www.state.ia.us/government/governor/energy/Energy%20Efficiency/BEST.html>

**Pennsylvania Small Energy Service Company (SESCO) Program**

[http://www.portal.state.pa.us/portal/server.pt/community/energy/1300/small\\_energy\\_service\\_company\\_%28sesco%29\\_program/547755](http://www.portal.state.pa.us/portal/server.pt/community/energy/1300/small_energy_service_company_%28sesco%29_program/547755)

**Texas LoanSTAR Revolving Loan Program**

<http://www.seco.cpa.state.tx.us/lr/>

**New York – NYSERDA – Residential Program**

<http://www.nyserda.org/GreenNY/gjgny-financing.asp>

# ENABLE Timeline

- \* Working group kick-off March 2011
- \* Issue investigation
- \* Working group May 2011
- \* Working model developed July 31, 2011
- \* Program roll-out August 2011
- \* Fully functioning program by December 31, 2011