

Board of Public Utilities

ENERGY SAVING IMPROVEMENT PROGRAMS

AKA: ESIP; ESCO; P.L. 2009, C. 4

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, including school districts

EMC CATEGORIES:

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

Local Government Energy Audit (free)

Eligibility for a Local Government Energy Audit will include K-12 public schools that will implement the audit recommendations as part of an Energy Savings Investment Plan (ESIP), which provides for energy related improvements to be financed with the value of energy savings resulting from the project. Grants are up to \$100,000 per year.

THREE 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”

DO-IT-YOURSELF

▣ **Plan B**

- ▣ 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

HYBRID MODEL

- ▣ **Plan C**
- ▣ Hire a Architect or Mechanical Engineer to manage an ESCO project
- ▣ Develop a plan that the Professional will put out to bid as a RFP
- ▣ Allow the Professional to take the School Board through the Interview Process
- ▣ Allow the Professional to be the liaison through the project to the ESCO

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 with an Invest Grade Audit
 - Savings based on BPU adopted standards

PRESCRIPTIVE INCENTIVE TECHNOLOGIES

- Electric Chillers
- Natural Gas Cooling
- HVAC Systems & Controls
- Ground Source Heat Pumps
- Gas Heating
- Water Heating
- LED Lighting
- Variable Frequency Drives
- Motors*
- Lighting*
- Lighting Controls
- Refrigeration Doors/Covers and Controls

NOTE: *No more incentives for existing compact fluorescents (screw-in PAR, new fixtures) and LED exit signs and a new halogen baseline will be used to calculate program energy savings.*

Effective March 1, 2013 none Sandy Affected Areas

- Prescriptive lighting incentives will be eliminated for the replacement of existing T12 fixtures. The retrofit savings baseline will shift from T12s to T8s
- Incentives will be eliminated for premium efficiency motors
- Motors with greater than 200 HP will continue under custom measures
- Fractional HP electronically commutated motors (ECMs) for refrigerated/freezer cases will move to a prescriptive Refrigeration Controls/Motors application
- Applications for motor and T12 lighting incentives will be accepted through close of business February 28, 2013
- Approved applications must be completely installed one year from the program commitment date

ENHANCED INCENTIVES

For Businesses & Local Governments

Proposed incentives available through
NJ SmartStart Buildings Prescriptive Program have
been increased by 50% in areas affected by
Hurricane Sandy

These Incentives have not changed

- Pay for Performance
- Direct Install
- Combined Heat & Power/Fuel Cells

DIRECT INSTALL (DI)

- ✗ A turn-key, retrofit program designed to replace eligible lighting, HVAC and other inefficient operational equipment within your building
- ✗ For buildings $\leq 150\text{kW}$ peak monthly demand
- ✗ Incentives up to 70% of the project cost, customer pays remaining 30%
- ✗ Incentives are paid directly to the contractor on your behalf

KEY DI PROGRAM FEATURES

- **Each project starts with a detailed no-cost measure assessment by the participating contractor**
- **A select group of pre-qualified contractors deliver all program services at negotiated flat fees for measures**
- **All permitting and disposal included**
- **Clean Energy staff oversee each project**

Pay for Performance (P4P) Program

- **Comprehensive, whole-building approach to saving energy in existing or new facilities**
- **Goal is to reduce facility energy consumption by 15% or more in existing or new buildings (over code)**
- **Uses a network of program partners who provide technical services under direct contract to you**
- **We monitor their performance on your behalf**

P4P ELIGIBILITY REQUIREMENTS

- ✕ Existing Building
 - + Located in New Jersey
 - + Annual peak monthly demand in excess of 100kW
- ✕ New Construction
 - + Located in New Jersey within Smart Growth area
 - + 50,000 square feet of conditioned planned space

Combine Heat & Power/ Fuel Cell Program

Total state and/or federal funding cannot exceed 50 percent of the total project cost. Funding can be used for project-specific, fixed asset purchases. The tiered incentive structure is as follows:

CHP Projects

- Greater than 1 MW to 3 MW \$0.55 per watt
- Greater than 3 MW \$0.35 per watt
- Maximum Incentive \$3 million
- Maximum Percent of Project Cost 30%

ESIP IS A FUNDING PROGRAM

Requirements for Energy Savings Plan

- No Negative Cash Flow
- No Capital Cost Avoidance
- No use of SREC's in Cost Savings Calculations
- Independent Third Party Review of Plan
- Maximum 15 Year Pay Back Standard Plan
- Maximum 20 Year Pay Back with Combined Heat and Power Plan

NJ BPU JURISDICTION OF ESIP

GUIDELINES

- RFP must be approved by NJ BPU
- A mandatory pre-proposal conference for interested, certified ESCOs
- Board of Public Utilities will receive at a minimum, a CD copy of each phase of the proposal and contract process.
- Invest Grade Audit for the Energy Savings Plan
- After Independent Third Party Review of Plan, NJ BPU must also approve Plan
- NJ BPU has the Authority to deny Clean Energy Incentives when deemed necessary

GETTING STARTED

- ✗ **Start with an Energy Audit:**

- ✗ <http://www.njcleanenergy.com/commercial-industrial/programs/local-government-energy-audit/local-government-energy-audit>

- ✗ **Issue and RFP for Energy Cost Savings Measures: Boiler Plate Available**

- ✗ <http://www.njcleanenergy.com/commercial-industrial/programs/energy-savings-improvement-plan>+

- ✗ **Contract issued. Work begins**

- ✗ **Energy costs drop. Savings begin.**

LINKS OF INTEREST

- ✗ <http://www.njcleanenergy.com/commercial-industrial/home/home>
- ✗ <http://www.njcleanenergy.com/commercial-industrial/programs/energy-savings-improvement-plan>
- ✗ Ed Mercer: ESIP@bpu.state.nj.us
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