

ENERGY SAVING IMPROVEMENT PROGRAMS

Board of Public Utilities

aka: ESIP; ESCO; P.L. 2012, c. 55

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

ECM 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**

DEVELOP THE ESIP

- ▣ **Step 1** – Perform independent audit
 - Third party – not the ESCO
- ▣ **Step 2** – Hire ESCO or Mechanical Engineer 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

HOW ESIP IS FUNDED

- ▣ An ESIP is either a Self Refunding Bond or Lend-Lease Operation
- ▣ Capital Project Energy refunding comes from the energy savings that were budgeted as energy line item in the general budget.
 - ▣ Incentives from Clean Energy
 - ▣ Demand Response Savings through lower energy use.
 - ▣ Energy Resiliency Bank
 - ▣ Federal Tax Incentives from (Lend-Lease programs)
- ▣ **ROID Grants cannot be combined with ESIP**

CONTRACTING OPTIONS AVAILABLE ESCO OPTION

Plan A – ESCO Option

ESCO is a single contractor that develops & manages the process, including offering guaranteed savings.

Use public bidding or competitive contracting process to award a contract to a firm (ESCO) to develop & manage construction of improvements

ESCO must give a guarantee of savings opportunity to government entity

Contract award is for “most advantageous, price and other factors considered process” or “lowest responsible bidder.”

**CONTRACTING OPTIONS AVAILABLE
DIY MODEL**

Plan B – DIY Model

Hire an energy consultant to develop your Energy Savings Plan

Develop your own specs and bid the job...

Or hire professionals to provide that service

Rely on built-in verification process to assure savings

**CONTRACTING OPTIONS AVAILABLE
HYBRID MODEL**

Plan C – Hybrid Model – Combination of ESCO & DIY

Hire an 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 entity (gov't or school) through the interview process

Allow the professional to be the liaison through the project to the ESCO

ESIP IS A FUNDING PROGRAM

Requirements for an Energy Savings Plan

No Negative Cash Flow

No Capital Cost Avoidance (except on a very limited basis)

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 Back with Combined Heat & Power Plan

BPU JURISDICTION OF ESIP

Guidelines – The Final Word

RFP must be approved by the BPU

Mandatory pre-proposal conference for interested, DPMC certified ESCO's
BPU will receive, at a minimum, a CD or Flash Drive copy of each phase of the proposal and contract process

Investment Grade Audit (IGA) for the Energy Savings Plan

After Independent Third Party Review of Plan, BPU must approve plan

BPU has complete authority to deny any phase and Clean Energy Incentives when deemed necessary

WHERE IS ESIP PROGRAM AT SINCE 2012

LGEA over 2400 building in the State of New Jersey can be audited.

LGEA over 400 government entities, Municipalities, school districts and state agencies have been audited.

Over 40 school districts have either started or are in the process of completing an ESIP project.

Several large cities have started the ESIP process with bidding using the RFP provided by the BPU

Clean Energy Program is fully funded to help the ESIP program

Several school districts have used CHP to extend financing for 20 years without Clean Energy incentives

MEASUREMENT & VERIFICATION

| Entity | Projected Guaranteed Annual Savings | Actual Annual Savings | Percentage Difference |
|-------------------------------------|---|--------------------------|--------------------------|
| Johnson Controls Inc. | | | |
| Barnegat School District | \$317,151.00 | \$359,411.00 | 113.32% |
| Mercer VoTech | \$1,015,724.00 | \$1,126,793.00 | 110.93% |
| Millville School District | \$616,411.00 | \$803,820.00 | 130.40% |
| Salem County VoTech | \$529,649.00 | \$623,562.00 | 117.73% |
| Wyckoff School District | \$368,277.00 | \$403,642.00 | 109.60% |
| Honeywell International Inc. | | | |
| Kearny Township | \$100,604.00 | \$122,534.00 | 121.79% |
| Bridgewater/Raritan RSD | \$592,025.00 | \$593,612.00 | 100.26% |
| Hanover Twp School Dist. | \$212,168.00 | \$218,104.00 | 102.79% |
| Phillipsburg | \$442,341.00 | \$521,762.00 | 117.95% |
| Ameresco | | | |
| Franklin Twp | \$99,134.00 | \$103,543.00 | 104.44% |
| Somerset Hills | \$345,944.00 | \$352,647.00 | 101.93% |
| DCO | | | |
| Manalapan | \$67,021.00 | \$78,623.00 | 117.31% |
| Constellation | | | |
| Newark Housing Authority | \$4,212,128.00 | \$9,411,792.00 | 123.45% |
| | \$8,918,577.00 | \$14,719,845.00 | 113.22% |

GETTING STARTED

Start with an Energy Audit:

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

Issue a RFP for a Energy Cost Savings Plan: Boiler Plate Available

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

Contract Issued

Work Begins

Energy Costs Drop

Savings Begin

KEY LINKS

Clean Energy Incentives

<http://www.njcleanenergy.com/commerical-industrial/home/home>

ESIP information

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

Link to the ESIP legislation

<http://www.njleg.state.nj.us/2012/Bills/AL12/55.pdf>

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