

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**

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.”

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

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

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>

- ▣ **Contacts**
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