# NJCEP & Sustainable Jersey Energy Program: Perfect Together

Presiding: The Honorable Robert D. Jackson, Mayor, Montclair
Randall Solomon, Co-Director, Sustainability Institute
Gary Finger, Ombudsman, New Jersey Board of Public Utilities
Mike Thulen, ESIP Coordinator, Board of Public Utilities
Marybeth Brenner, Senior Program Manager, TRC Solutions
Tony O'Donnell, Economist, Sustainability Institute

New Jersey League of Municipalities

November 17, 2016

# Agenda for this Session

- Introduction and Opening Remarks by Mayor Jackson
- Brief Overview of Sustainable Jersey
- Discussion of NJCEP offerings for municipalities
- Presentation of Sustainable Jersey Clean Energy Actions
- Introduction to Pathways tool to help municipalities navigate the NJCEP in an optimal way
- Question and Answer session


# Lighting in Your Community

**November 17, 2016**

**Gary E Finger**
**NJBPU Ombudsman**

# New Jersey Energy Master Plan Goals

- Maximize energy conservation and energy efficiency
  - Reduce electric consumption by 20,000GWh
  - Reduce heating energy by 110 trillion BTU's
- Reduce Peak Electricity demand by 5700 MW by 2020
- Obtain 22.5% of the State's electricity needs from renewable sources by 2021.
- Promote innovative clean energy technologies and businesses.

# Overview

- There are 565 municipalities in New Jersey
- More than 8 million people (ratepayers) in the State.
- Ratepayers pay more than $110 million annually to light our streets.
- There are just over 745,492 street lights in New Jersey
- Street lighting is paid for in nearly all cases by local government
- This is a budget item that is ultimately reflected in your property tax bill.

# Current National Street Lighting Status

- USDOE estimates between 36 – 44 million street lights in U.S.
- Energy costs approx. $2 billion annually
- USDOE also estimates that 20% of all energy used is for lighting.
- Primary technology used is High Pressure Sodium

# Current National Street Lighting Status

- Over 800 cities in the U.S. have either installed LED street lights or plan to install them shortly
- USDOE estimates that a reduction of 24% ( 48 million kWh) in energy use can be obtained by retrofitting all lights with newer LED technology
- Added benefit: Reported reduction in crime by 12%

# Project – Las Vegas

- Started in 2011, replacing 44,000 lights
- Over $2 million saved annually in energy costs and maintenance costs
- Payback period: 7 – 8 years
- Savings used to payback obligation bonds
  Very similar to our BPU ESIP funding .
  (Energy Savings Improvement Program)

# Project - Seattle

- Pilot started in 2009 and now covers over 84,000 area lights
- Project cost approx. $18 million
- Energy cost savings $2.4 million annually
- Payback period approx. 7.7 years
- Total energy reduction of between 48% - 62%

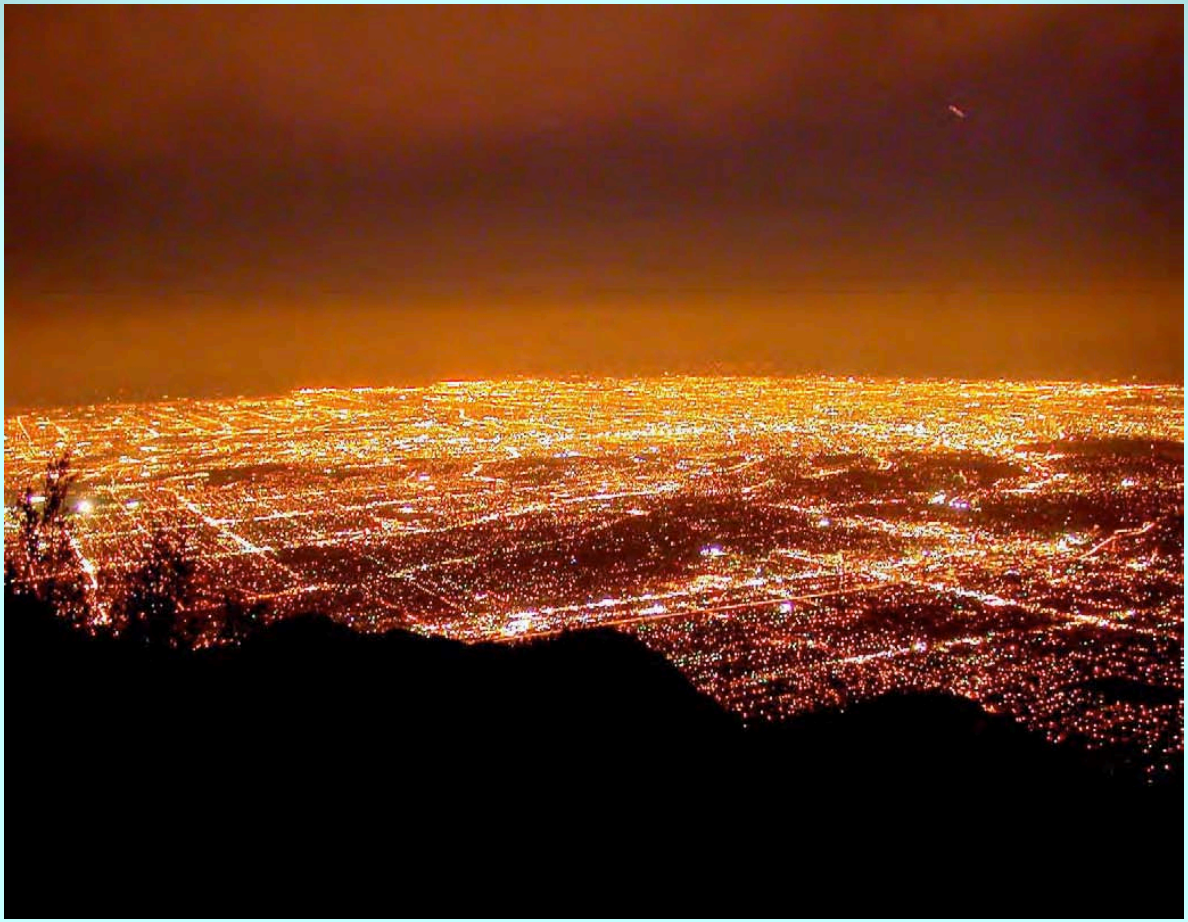
# Project - Boston

- Started late in 2010 with 25,000 street lights
- Total project will have 84,000 lights converted to LED
- Project cost $18.8 million
- Projected annual savings $3.3 million
- 60% decrease in energy use
- Funding incentive of 50% utility rebate and 50% city capital funds

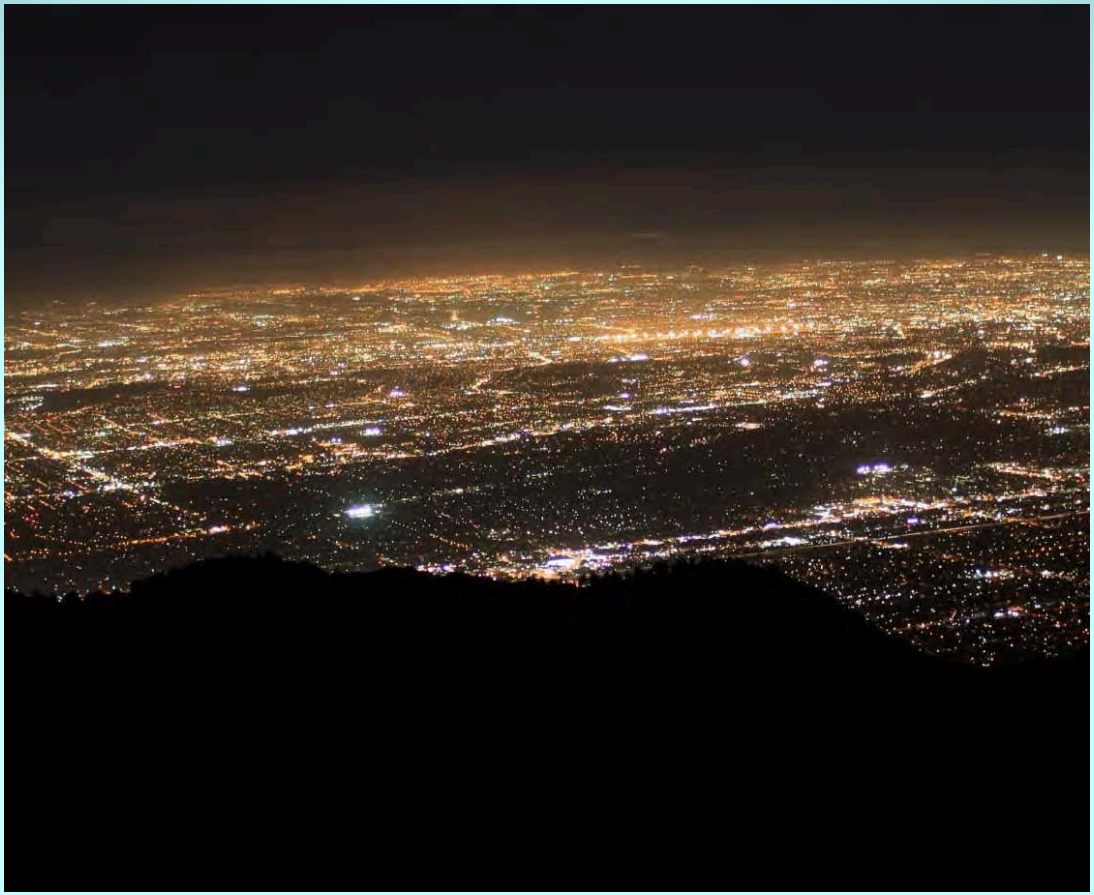
# Project – Los Angeles

- Retrofitted approx. 147,000 street lights since 2009
- Consuming 45% LESS energy than HPS, saving 68 million kWh annually
- Reduced energy costs by 63
- Project cost: $57 million
- Payback period: 7 years
- Utility owned by the city

# Los Angles before street light conversion (using sodium vapor bulbs)



# Los Angles after street light conversion (using LED's)



**Significant Green House Gas reductions**

**New lexicon: Reduction in Light Pollution**

# Municipal costs in New Jersey

- Newark - $8.6 million annually
- Jersey City - $4.0 million annually
- Camden - $1.9 million annually
- Cherry Hill - $870,000 annually
- Haddonfield - $111,000 annually

# Community Impact / Government Actions

**Parking lot lit with metal halide**

**Same parking lot with LEDs**

**Township ordinance requiring new construction using LED technology. Reduction in crime impacts public safety budgets.**

# Where we stand in NJ

- If all utility companies offered A LED street lighting tariff, municipalities could possibly save over $55 million annually
  - This represents between 1 ½% - 2% on a municipalities annual budget
- Not all EDC's (utility companies) have a tariff in place for LED street lighting
- To date, only Atlantic City Electric has such a tariff
- The BPU can not force the EDC's to introduce a tariff for LED street lighting

# Options & Opportunities

- Any municipally owned lighting can be retro-fitted to obtain lower costs and lower Green House Gas Emissions now.
- The Clean Energy program provides incentives to convert to LED in many cases.
- If you are located in a territory that provides a LED street lighting tariff consider upgrading to LED
- Review the capital costs and determine the payback for your town
- Consider using ESIP to carry the funding.

# Thank you for your time and interest


**Gary E Finger**
**New Jersey Board of Public Utilities**

**Ombudsman@bpu.nj.gov**

# 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

# 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

- **Contacts**
- Mike Thulen / ESIP Coordinator esip@bpu.nj.gov
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- Gary Finger / Ombudsman esip@bpu.nj.gov
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# New Jersey's Clean Energy Program

## Opportunities for Commercial, Industrial and Institutional Buildings

NJ League of Municipalities Conference

November 17, 2016

# NJCEP BACKGROUND

- Administered by the New Jersey Board of Public Utilities
- Funded from “Societal Benefits Charge” on utility bill
- Program Goals:
  - Save energy and lower operating cost
  - Protect environment and lower emissions
  - Change the business mindset

# PROGRAM PORTFOLIO

**ELIGIBLE SECTORS** →

Commercial, Industrial, Government, Non-Profit, Institutional and Multifamily

**PROGRAMS** →

Equipment Rebates:

- Retrofit – Existing Buildings
- New Construction
- Direct Install – Small Business
- Large Energy Users

Whole Buildings:

- Pay for Performance Existing Buildings
- Pay for Performance New Construction

Energy Generation:

- Combined Heat and Power (CHP) and Fuel Cells

Audits:

- Local Government Energy Audits


# FREE BENCHMARKING REPORT

# WHAT IS BENCHMARKING?

## Is 60 MPG high or low for this automobile?


Fuel Efficiency: MPG

## Is 90 kBtu/SF/YR high or low for this building?


Energy Performance Source: 1 to 100

# BENCHMARKING OVERVIEW

- Open to Commercial, Industrial, Agricultural, Government, Non-Profit and Institutional Customers
- Free Benchmarking Report includes:
  - An ENERGY STAR® Portfolio Manager score
  - Suggestions for improving operations and maintenance
  - Identification of relevant incentives and program options for energy efficiency projects

# WHY BENCHMARK?

- Understand energy usage and costs
- First step for ENERGY STAR certification
- Identify under-performing facilities
- Assess effectiveness of operations
- Assist in goals, targets and timelines
- Set investment priorities
- Verify and document pre and post project energy use

# HOW TO PARTICIPATE

## To Request a Benchmarking report:

- Visit NJCleanEnergy.com/BENCHMARKING
- Submit the online data collection form
- Submit 12 consecutive months of energy data or a signed Fuel/Energy Release Authorization Form


# LOCAL GOVERNMENT ENERGY AUDIT (LGEA)

# LGEA: OVERVIEW

**AVAILABLE TO**

- Local governments & schools under Local Public/Schools Contracts Laws
- County colleges under County College Contracts Law
- NJ State Colleges or State Universities under State College Contracts Law
- 501(c)(3) Non-profit organizations
- State Contracting Agencies & Public Agencies

**INCENTIVE**

100% of the audit cost, subject to an annual incentive cap of $100,000 per entity, per fiscal year. Exceptions possible (up to $300,000).

# LGEA: HOW IT WORKS

- Complete application
- Schedule your audit
- Choose among list of recommended, cost-effective energy efficiency upgrades
- Apply for additional incentives from *New Jersey's Clean Energy Program*

# LGEA: NEW FEATURES

Revised program launched in March, 2016:

- No RFP process for audit firm selection
- Ability to re-apply after 3 years
- Consistency of audit report format/content
- Follow up re: NJCEP incentive programs and implementation of recommended measures

# NJ SMARTSTART BUILDINGS

# SMARTSTART: OVERVIEW

- Two types of incentives for high efficiency equipment installation:
  - Prescriptive Incentives
  - Custom Incentives
- Available to all Commercial, Industrial, Agricultural, Government, Non-Profit and Institutional customers
- Includes New Construction, Rehab and Retrofit projects
- Project pre-approval required for some applications (lighting)
- Incentives up to $500,000 per electric account and $500,000 per natural gas account per fiscal year.

# SMARTSTART EXAMPLES

# HOLIDAY INN HASBROUK HEIGHTS

- Hotel
- LED lighting retrofit
- Total Project Cost: $73,787*
- **Incentive: $60,510**
- **Annual Savings: $19,057**
- **Project Payback: 0.8 years**


*Lower costs due to installation by maintenance staff

# COLGATE-PALMOLIVE

- Research Facility
- Chilled water plant retrofit
- Total Project Cost:

  $2.5 million
- **Incentive: $224,526**
- **Annual Savings: $283,898**

# DIRECT INSTALL

# DIRECT INSTALL: OVERVIEW

- A turn-key retrofit program to replace outdated and inefficient equipment
- Lighting, HVAC, Refrigeration
- Open to Small to Mid-Sized Commercial and Industrial facilities with a peak electric demand ≤ 200 kW
- Provides incentives of up to 70% of the installed cost
- Incentives are paid directly to the contractor
  - Customer only pays remaining 30% of installed cost
  - $125,000 project cap
  - $250,000 per entity cap

# DIRECT INSTALL: BENEFITS

- Turnkey process: participating contractors provide support and process all paperwork
- Minimal cost: Low upfront cost with generous incentives
- Fast turnaround time: Average length of time for job completion, 4-6 months
- Ongoing savings: Projects provide energy savings year after year

# DIRECT INSTALL: BENEFITS

New Feature of Program as of September, 2016:

- Customer can use their own contractor (provided they can meet program requirements).

- See program web site for details and list of pre-selected contractors and territories.

*NJCleanEnergy.com/DI*

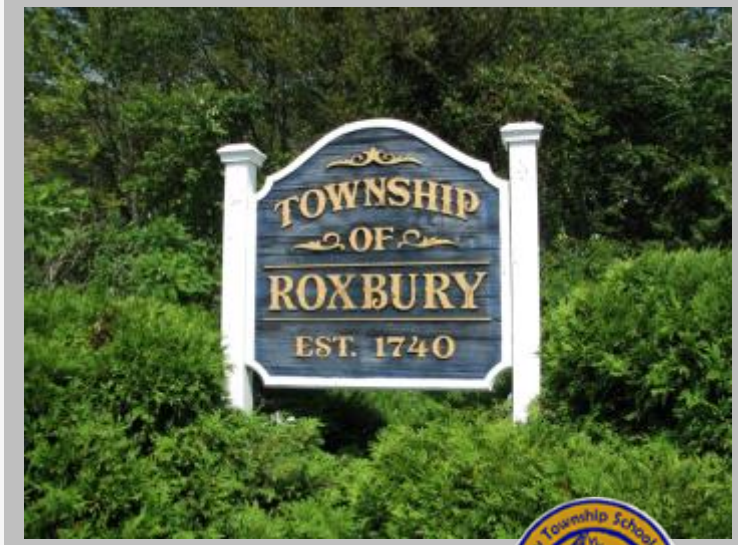
# DIRECT INSTALL EXAMPLES

# HAMILTON TOWNSHIP FIRE DISTRICT #2

- Municipal Fire Station
- Lighting & HVAC retrofit
- Total Project Cost: $125,664
- **Incentive: $87,965**
- **Annual Savings: $12,961**
- **Payback Period: 2.9 Years**

# ROXBURY TOWNSHIP PUBLIC SCHOOLS

- Public Elementary School
- Lighting & HVAC retrofit
- Total Project Cost: $119,740
- **Incentive: $83,818**
- **Annual Savings: $16,229**
- **Payback Period: 2.2 Years**



# EDEN AUTISM SERVICES

- Commercial Office
- Lighting & HVAC retrofit
- Total Project Cost: $96,741
- **Incentive: $67,719**
- **Annual Savings: $14,124**
- **Payback Period: 2.05 Years**

# MIDDLESEX COUNTY EXTENSION SERVICES

- County Park Building
- Lighting & HVAC retrofit
- Total Project Cost: $79,505
- **Incentive: $55,654**
- **Annual Savings: $11,604**
- **Payback Period: 2.1 Years**

# SHOP n BAG

- Grocery store in Farmingdale
- Lighting, refrigeration controls and grocery aisle covers and doors
- Total Project Cost: $155,121
- **Incentive: $108,585**
- **Annual Savings: $34,719**
- **Payback Period: 1.3 Years**

# PAY FOR PERFORMANCE (P4P)

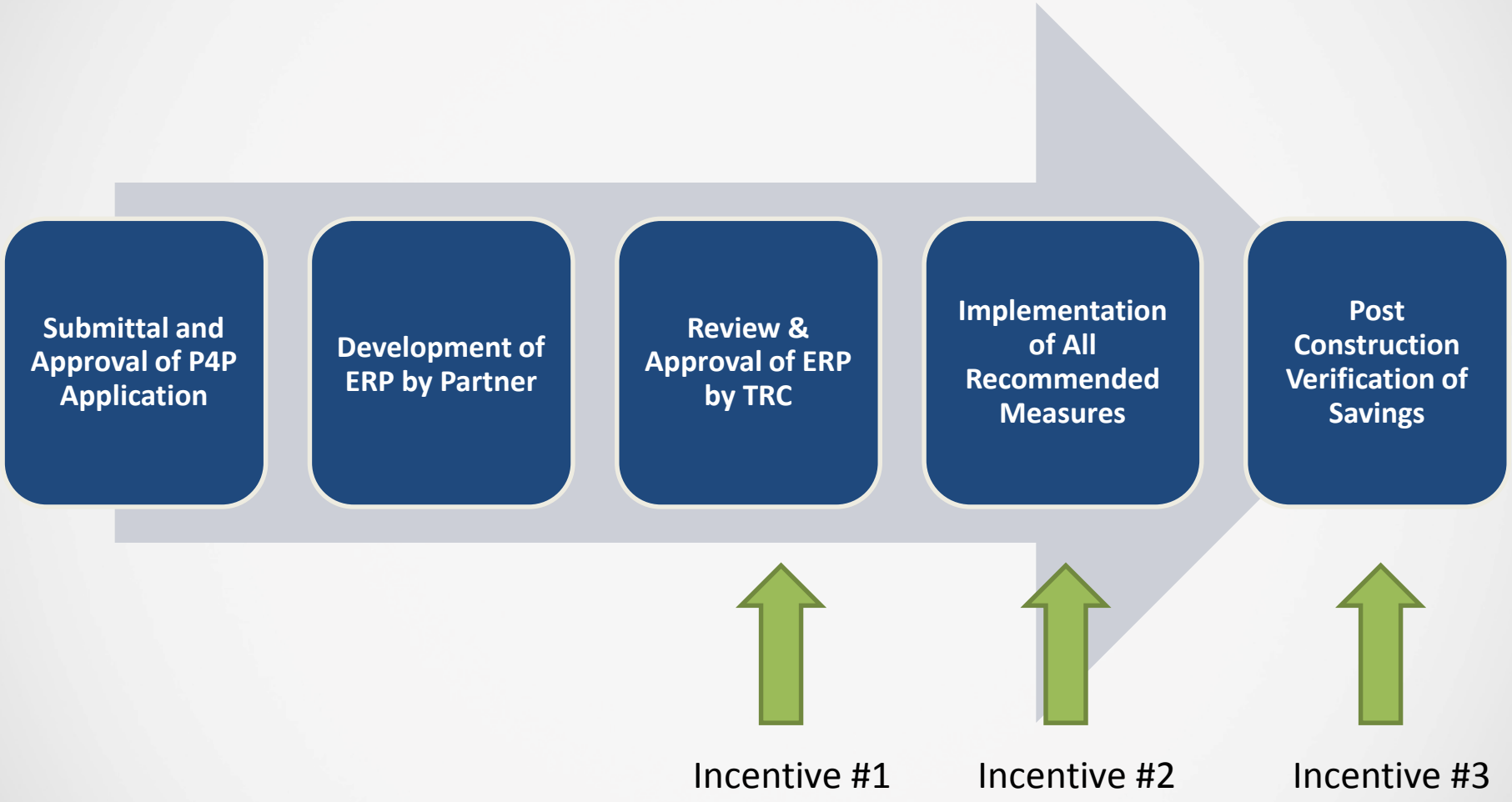
# P4P: OVERVIEW

- Comprehensive, whole-building approach to saving energy in existing or new facilities
- Goal to reduce energy consumption in medium to large facilities; promote energy efficient design.
- Incentives up to $2 million per project, assuming both gas and electric improvements are made; $4 million annual entity cap
- Incentives paid in three installments at milestones
- Customer chooses from network of pre-approved participating Partners

# P4P EXISTING BUILDINGS: OVERVIEW

- Commercial and Industrial facilities with annual peak demand 200 kW+ in previous year; 100 kW for multifamily
- Minimum savings 15% from existing energy use
- At least two unique measures
- Lighting cannot make up more than 50% of total savings

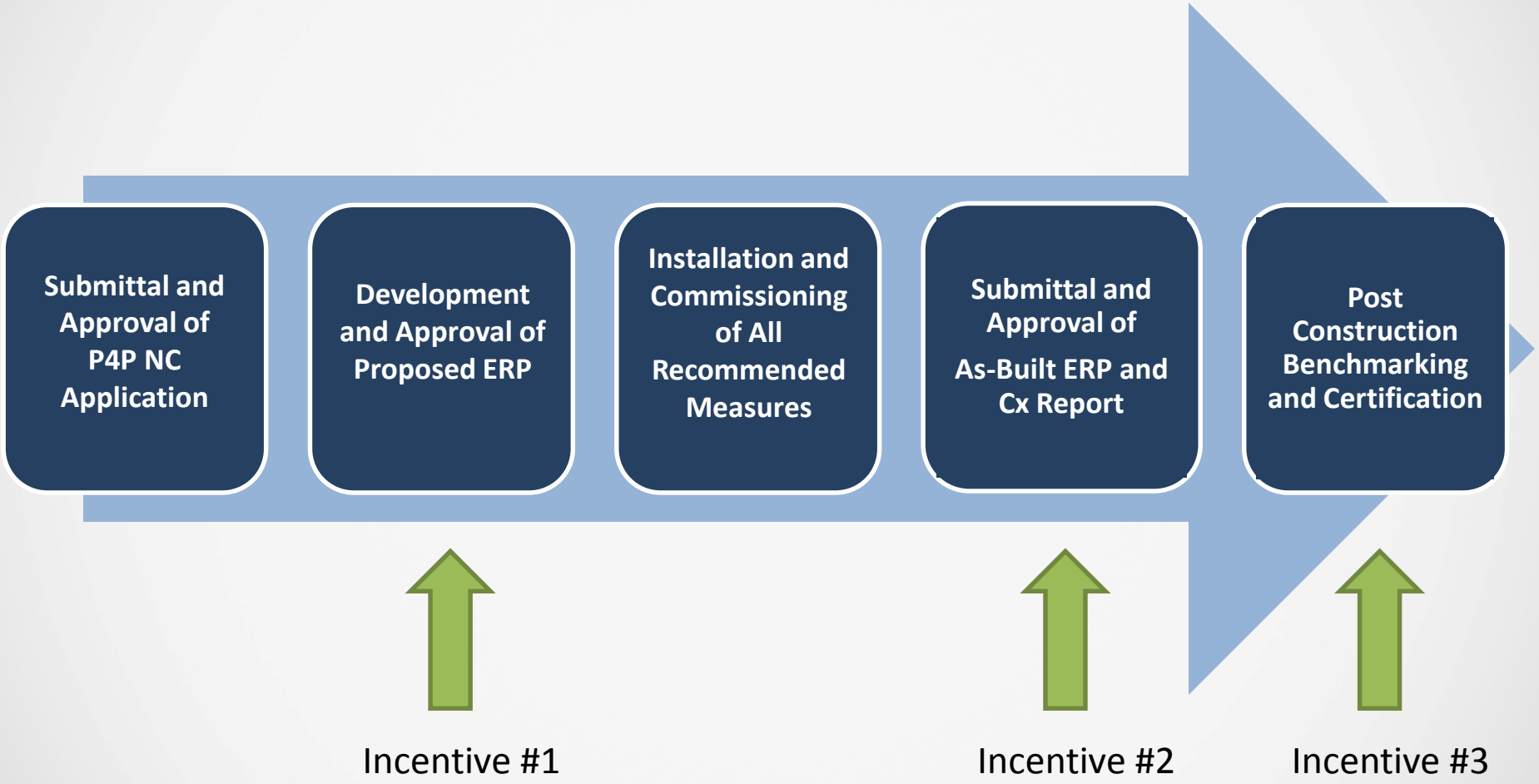
# P4P EB: PROCESS



# P4P NEW CONSTRUCTION: OVERVIEW

- Projects with over 50,000 square feet of planned conditioned space
- Commercial and Industrial: Minimum 5% energy cost savings from code baseline (ASHRAE 90.1-2013)
- Multifamily: Minimum 15% energy cost savings from code baseline (ASHRAE 90.1-2013)
- At least one measure addressing lighting, envelope, heating and cooling.

# P4P NC: PROCESS



# PAY FOR PERFORMANCE EXAMPLES

# TROY HILLS VILLAGE

- Multifamily Apartment
- Lighting & HVAC retrofit
- Total Project Cost: $1,480,000
- **Incentive: $683,186**
- **Annual Savings: $208,927**
- **Payback Period: 5.5 Years**

# BAYER

- New construction 700,000-square foot office in Whippany
- LED lighting with occupancy sensors, high-efficiency HVAC, VFDs, Low-E windows
- Total Project Cost: $4,233,858
- **Incentive: $1,133,423**
- **Annual Cost Savings: $526,876**
- **Payback period: 6 years**

# DISTRIBUTIVE ENERGY RESOURCES

# Distributive Energy Resources

- New Distributive Energy Resources (DER) Budget Category
  - Combined Heat & Power
  - Electric Storage
  - Wind

**Combined Heat & Power (CHP) Program Highlights**

- FY17 program launched August 1, 2016
- Biopower incentives are now incentivized through the CHP Program
  - 100% renewable-fuel or mixed fuel systems
- Provide clear program definitions around CHP and WHP projects
- Fuel cell without heat recovery have been suspended from the program pending results of a CHP-FC Evaluation

# DER: CHP Program

- 30/50/20 Incentive payment
  - 30% when equipment purchased
  - 50% when system installed
  - 20% upon acceptance and confirmation that the project is achieving the required performance thresholds based on twelve (12) months of continuous operating data submitted within 24 months of installation
- All new projects must pass a cost-effectiveness test
  - 10 year simple payback or less
  - Inclusive of federal tax benefits and program incentive
- All new projects must contain cost-data for islanding capabilities, regardless of whether the project has islanding capabilities or not

# DER: Electric Storage

- Current Energy Storage Program launched March 1, 2016
  - Incentive based on $300/kW of energy capacity, maximum of $300,000/project or 30% project cost
- Additional $3 million for a future program
  - Rutgers University (RU) Laboratory of Energy Smart Systems (LESS) is finalizing their study
  - RU LESS evaluation along with stakeholder input, results from FY15 solicitation and FY16 open enrollment will inform and influence future program design


# LARGE ENERGY USERS PROGRAM (LEUP)

# LEUP: OVERVIEW

- State's largest commercial and industrial facilities
- Eligible entities must have contributed ≥$300,000 into NJCEP fund (of the SBC) in previous year.
- The maximum incentive per entity is $4 million or 75% of total project cost, or annual energy saving caps, whichever is less
- Customer must submit draft and final Energy Efficiency Plans for pre-approval
- Projects approved on first come, first served basis

# HOMEOWNER INCENTIVE PROGRAM

# Homeowner Incentives

- Home Performance with ENERGY STAR®
  - Provides home energy assessments and comprehensive energy efficient upgrades
  - Incentives up to $5,000
  - 0% interest loan up to $10,000

# Homeowner Incentives

- ENERGY Efficient Products Program
  - Rebates between $50-$300 when purchasing ENERGY STAR certified refrigerators, washers and dryers
  - Discounted efficient lighting at participating retailers
  - Old, working refrigerators or freezers picked up free of charge, plus $50 rebate
- HVAC programs offer incentives up to $1,500 for heating and cooling equipment upgraded to highly efficient systems

# Visit Us at Booth 1427

Meet with Account Managers

Collect Program Literature and Case Studies

# FOR MORE INFORMATION

**Visit** NJCleanEnergy.com

**Call** (866) NJSMART

**Stay Informed** NJCleanEnergy.com/Newsletter

To join the Energy Efficiency listserv

contact the NJCEP Webmaster.

# Energy Efficiency for Municipal Buildings (NEW)

- Purpose: combine audit & implementation actions to streamline and simplify process for Green teams
- Sliding scale: 5 to 50 points
- Seven different point levels available
  - First four tiers award points (5-20) for either audits or upgrades but do not require that the Green team to provide an Energy Use Intensity (EUI) calculation
  - Highest three tiers award points (30-50) based on improvements in municipal building portfolio that are documented with an Energy Use Intensity score improvement

# Residential Energy Efficiency Upgrades (NEW)

- Purpose: Combines the two current Home Performance with Energy Star actions into one action.
- Sliding Scale: 10 to 20 points
- Two different point levels available
  - Research shows a 7-fold increase in community participation for those Green teams that approved a municipally-sanctioned auditor through a competitive RFP process
  - Outreach without going through the RFP process has also proven to be effective
  - Ad-hoc committee is looking to adopt improvements to the action that will focus on completions and will expand the number of contractors to be approved through RFP process

# Commercial Energy Efficiency Upgrades (NEW)

- Purpose: Combines the two current Direct Install outreach actions into one action.
- Sliding Scale: 10 to 20 points
- Two different point levels available
  - A base of 10 points is awarded for implementing the outreach program in conjunction with municipal officials and DI contractor support as described in the action
  - An additional 10 points is earned by achieving a target goal of 5% of commercial properties to participate in the DI program
  - The Gold star standard for this action will be based on a DI program participation rate that represents performance in the top 10% of New Jersey municipalities (still ding research that will result in a firm number).

# Optimizing New Jersey's Clean Energy Program for Local Governments

- Select LGU from list
- Profile generated based on TCNJ/NJIT Data
  - Size, building portfolio
  - NJCEP participation history
- Present questions for LGU to address:
  - Energy usage
  - Administrative capacity
  - Etc.
- Present Portfolio Matches

# Four Pathways/Profiles

1. Quick Implementers
2. Mid-Range
3. Do It Yourself Bundler
4. Clear ESIP Candidate

# Pathways Matrix

| | Quick Implementers | Mid-Range | DIY Bundlers | ESIP |
|---|---|---|---|---|
| **(1) Unimplemented LGEA potential in dollars** | | | | |
| • <$600K | X | | | |
| • $600K - $1.5M | | X | X | X |
| • >$1.5M | | | X | X=outreach target |
| **(2) Estimated Savings in dollars x # of buildings** | | | | |
| • <$600K | X | | | |
| • $600K - $1.5M | | X | X | X |
| • >$1.5M | | | X | X |
| **(3) Peak Demand** | | | | |
| •0 to 200KW | X | | | |
| >200KW | | X | X | X |
| **(4) Management preference** | | | | |
| •Low | X | | | |
| •Medium | | X | X | |
| •High | | | X | X |

# Profile for Quick Implementers

## Summary of Pathway Characteristics:

- Project Size Less than $600,000
- No Buildings with Peak Demand >200 kW
- Limited Evidence of Upgrade Opportunities; no LGEA or LGEA with Limited Results
- Limited Administrative Capacity for Complex Programs

# Recommended Path for Quick Implementers

1. An LGEA is not recommended.

2. Optimal strategy for these LGUs is effective use of the Direct Install program (with an audit-like walkthrough), probably focusing on lighting upgrades and advanced controls.

3. Encouragement should be provided for simple building upgrades, including weatherization, duct sealing, and simple insulation, and early replacement of aging capital equipment if budget allows

4. However, these “add ons” should not constrain pursuit of the easy upgrades that can be quickly realized through the DI program(s).

# Profile for Mid Range

## Summary of Pathway Characteristics:

- Project Size Between $600,000 and $1,500,000
- Vague or Mixed Evidence of Upgrade Opportunities; Some Prior ECMs Implemented
- Limited Administrative Capacity for Complex Programs

# Recommended Path for Mid Range

1.A simple DI approach is probably inadequate by itself and so other CEP programs are appropriate for consideration.

2.Primary path is therefore completion of an LGEA (if one has not already been done)

3.Consideration of P4P, DI, or equipment upgrades in various combinations.

4.These LGUs are essentially implementing program level measures, without fuller consideration of a more comprehensive (and difficult) upgrade program.

# Profile for Do It Yourself Bundler

## Summary of Pathway Characteristics:

- Project Size Between $600,000 and $1,500,000
- Good Evidence of Upgrade Opportunities; Possible LGEA Showing Unimplemented ECMs
- Strong Administrative Capacity and Appetite for Complex Programs

# Recommended Path for Do It Yourself Bundler

1.These LGUs essentially implement an “ESIP Light” without the significant overhead required of the larger ESIP program.

2.Optimal pathway is:

- complete an LGEA if it has not been done already, then
- based on LGEA findings, explore DI, P4P, and equipment upgrade programs.

# Profile for Clear ESIP Candidate

## Summary of Pathway Characteristics:

- Project Size Greater Than $1,500,000
- Strong Evidence of Upgrade Opportunities
- Strong Administrative Capacity and Appetite for Complex Programs

# Recommended Path for Clear ESIP Candidate

1.The optimal path for this segment is a full blown ESIP project with the goal of the most comprehensive upgrade bundle possible.

2.An LGEA should be done as a first step (if it hasn't been done already), followed by the ESIP RFP process.

3.ESIPs are good fits for larger schools and most counties (or municipal groups if aggregated together), but rarely work for small to medium sized municipalities or smaller "other" entities.

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