

New Jersey's Clean Energy Program Pay for Performance: Integrating Performance Programs & ENERGY STAR

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Overview

- New Jersey's Clean Energy Program
- Pay for Performance Program
 - Program Design
 - P4P Partner Network Development
 - Program Requirements
- Integration with ENERGY STAR
- Program Status and Metrics

NJ Clean Energy Program - Background

- Introduced in 2001 as part of NJ “Clean Energy Act” of 1999
- Funded from “Societal Benefits Charge” on utility bill
- Administered by the New Jersey Board of Public Utilities
- Provides energy efficiency project opportunities for:
 - Residential
 - Commercial & Industrial (TRC Energy Services)
 - Renewable Energy

NJCEP Goals

- **Save** energy and lower operating costs
- **Protect** the environment and lower emissions
- **Change** the business mindset
 - Think high efficiency first
 - Encourage early retirement of equipment
 - Increase effective operations and maintenance
 - Promote renewable energy alternatives

Pay for Performance Goals

- Address Large C&I in NJ
 - At least 200 kW peak demand
- Encourage Comprehensive Workscopes
- Market Transformation

Pay for Performance Design

- Comprehensive, Whole-Building Approach
- Existing and New Construction Components
- Minimum 15% Source Energy Reduction
- Incentives Tied to Performance
- Relies on P4P Partner Network

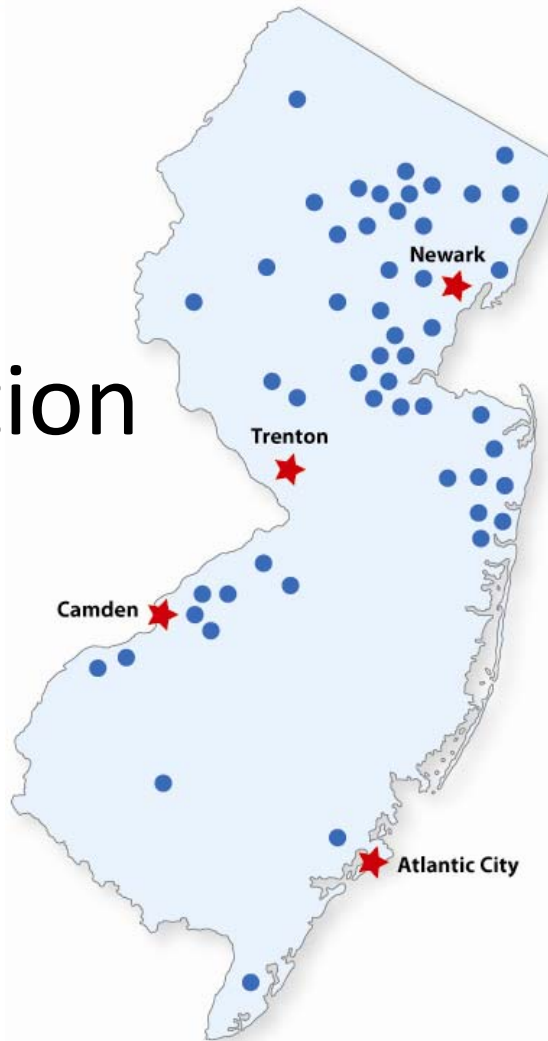
Whole Building Approach

- Energy Reduction Plan (ERP) Development
 - Comprehensive audit, financing & construction plans
 - Building simulation model, with utility bill calibration
 - Workslope development
- Completed by approved P4P Partner
- 15% Source Energy Reduction
 - Calculated Using Portfolio Manager
 - No More Than 50% of Savings Through Lighting

P4P Partner Network

- RFQ Process for Developing Network
 - Based on Project Experience and Relevant Qualifications
- P4P Partners are Program Representatives
 - Marketing Force for Program
- Primary Role is to be Owner's Agent
 - Workscope Development, Financing, Construction Oversight, etc.
- Use Program Templates, Tools, Follow Guidelines

P4P Partner Distribution



OUT-OF-STATE

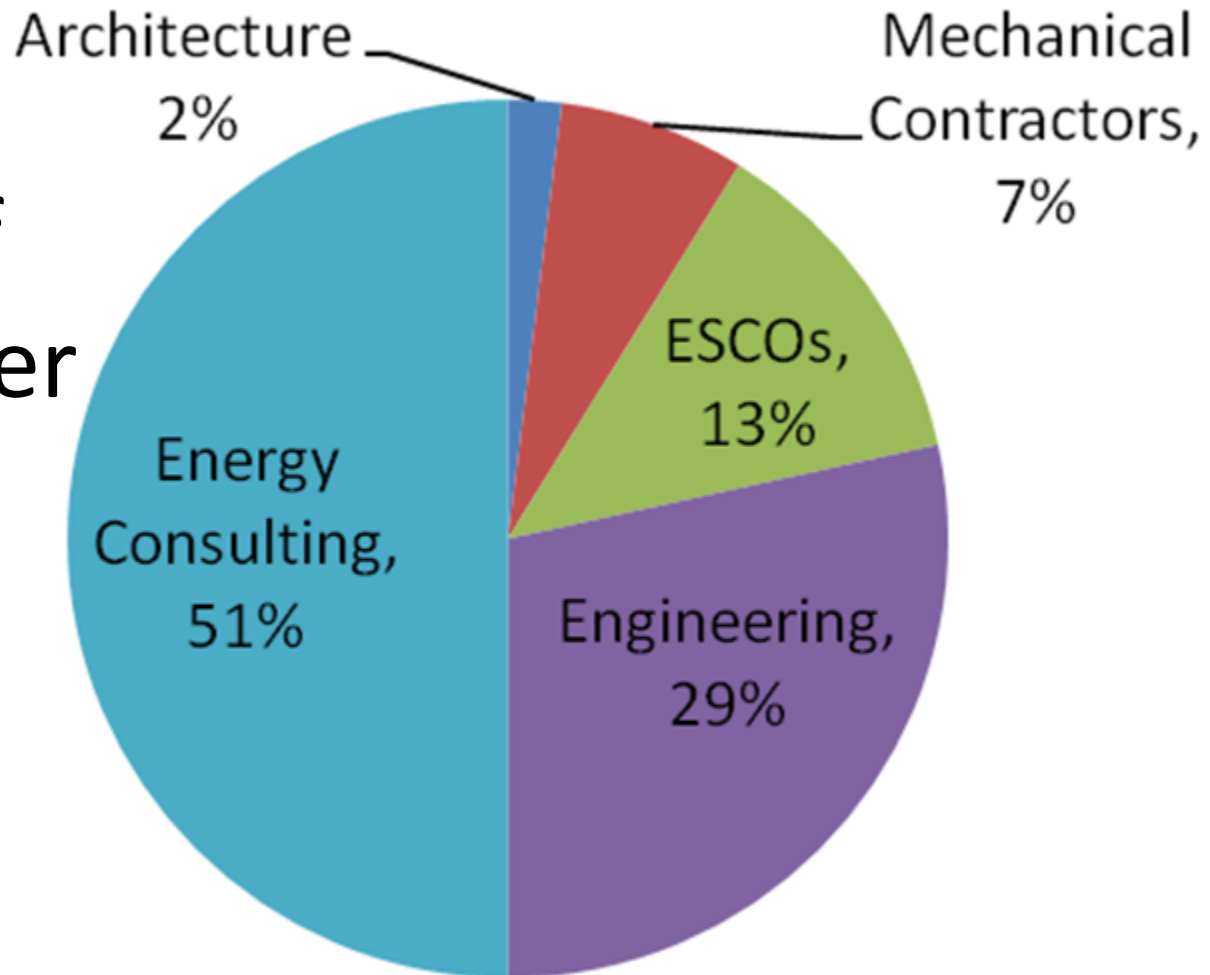
Pay for Performance Approved Partners

- Allentown, PA
- King of Prussia, PA
- Mont Clare, PA
- Oreland, PA
- Philadelphia, PA
- Reading, PA
- Southampton, PA
- Warrington, PA
- Wynnewood, PA

- Brooklyn, NY
- Buffalo, NY
- Goshen, NY
- Katonan, NY
- Long Island City, NY
- Mamaroneck, NY
- Middletown, NY
- New York, NY
- Rochester, NY
- Saratoga Springs, NY
- Tarrytown, NY
- Valhalla, NY

- Costa Mesa, CA
- Norwalk, CT
- Leawood, KS
- Alpharetta, GA
- Yarmouth, ME
- Baltimore, MD
- North Plymouth, MN
- Arlington, VA

Types of P4P Partner Firms



Performance Monitoring & Verification

Follow P4P Program Guidelines

- Calibrated Simulation method of M&V
- Equipment metering, as necessary
- Baseline model adjustments for operational changes
- Portfolio Manager used to determine % of source energy reduction

Measuring Savings

- Final Incentive Based on Achieved Savings
- 12 Months of Post-Construction Utility Data Entered into Portfolio Manager
- Project Must Achieve at least 15% to get Final Incentive
 - Incentive Increases with Increased Savings

Incentive Development

- Align Incentives with Cash Flow
 - Up-Front Analysis
 - End of Construction
- Final Incentive Upon Savings Verification
 - “Insurance Policy,” Not Paying for Unrealized Savings
 - Keeps Partner Involved
 - Adjust Equipment if Needed
 - Tracking Energy Use

Incentive Structure

Incentive #1

- ERP Approval, \$0.10/sqft

Incentive #2

- Construction Completion
- Based on Proposed Energy Savings (kWh, therm)
- 50% of Performance Incentive

Incentive #3

- 1 Year Post-Construction Energy Use
- Based on Actual kWh and therm Savings
- 50% of Performance Incentive

Integration with ENERGY STAR

- Portfolio Manager – Central Program Component
 - Establish Facility Baseline
 - Determine 15% Source Energy Savings Threshold
 - Verify Actual Savings
- Target Finder
 - Establish Rating for Proposed Building

Building Performance with ENERGY STAR NJ Clean Energy Program Pilot

- Benefits:
 - Strengthening Link with EPA
 - Add Connection Between Existing Programs
 - Portfolio Approach
 - Benchmarking Leading to P4P Participation
- Evaluate Impact on Participation and Savings

BPwES Pilot

- Projects Enter Through Benchmarking Initiative
 - Provide Building Energy Use Report
 - Portfolio-Level Action Plan
 - EPA's Energy Management Assessment Matrix
 - Direct into Pay for Performance or Other New Jersey Clean Energy Program

BPwES Pilot

- Target NJ-Based Retail Chains
 - e.g. A&P, Shop Rite, Toys R Us, Verizon
- Health Care / Hospital (multi-location institutions)
- Anticipated pilot size
 - 7-10 Customers
 - 40-50 Buildings

Sample Marketing Material

PAY FOR PERFORMANCE

GET PAID TO MAKE YOUR FACILITIES ENERGY-EFFICIENT

The project you thought was out of budgetary reach may be well within your company's means. Together with Pay for Performance, you can save now...and save later.

HOW IT WORKS

For new construction or existing buildings, Pay for Performance relies on a network of approved partners who provide technical services under direct contract to you. Acting as your energy expert, your partner will develop an energy reduction plan for each project with a whole-building technical component of a traditional energy audit, a financial plan for funding the energy-efficient measures and a construction schedule for installation. And the more energy your project saves...the more incentives your company earns.



BUILDING PERFORMANCE WITH ENERGY STAR

Working to deliver whole-building energy performance that saves money and helps protect the environment.

You may also become one of the first to receive recognition through our Building Performance with ENERGY STAR[®] pilot initiative.



EXISTING BUILDING

- **Incentive #1:** Paid upon submittal of a complete energy reduction plan prepared by an approved partner. Contingent on moving forward, incentives will be between \$5,000 and \$50,000 based on \$.10 per square foot.
- **Incentive #2:** Paid upon installation of all recommended measures. Incentives are based on the projected level of electricity and natural gas savings and are paid at \$.11 to \$.13 per kWh saved and \$1.10 to \$1.45 per therm saved.
- **Incentive #3:** Paid upon completion of a post-construction benchmarking report verifying projected energy savings. Incentives are based on actual electricity and natural gas savings and are paid at \$.07 to \$.09 per kWh saved and \$.70 to \$1.05 per therm saved.

NEW CONSTRUCTION

- **Incentive #1:** Paid upon submittal of a complete draft energy reduction plan prepared by an approved partner. Based on the project's design development drawings, and contingent on moving forward, incentives will be \$.10 per square foot up to \$25,000.
- **Incentive #2:** Paid upon submittal of a complete proposed energy reduction plan. Based on the project's final construction documents, and contingent on moving forward, incentives will be \$.50 per square foot.
- **Incentive #3:** Paid upon submittal of a complete as-built energy reduction plan verifying that the as-built building met or exceeded projected energy cost savings. Incentives will be \$.75 to \$1.00 per square foot.

Getting Started

To learn more about Pay for Performance or to download participation forms, visit NJCleanEnergy.com/P4P. You can also contact a program representative with questions at P4P@trcsolutions.com or call 866-NJSMART.

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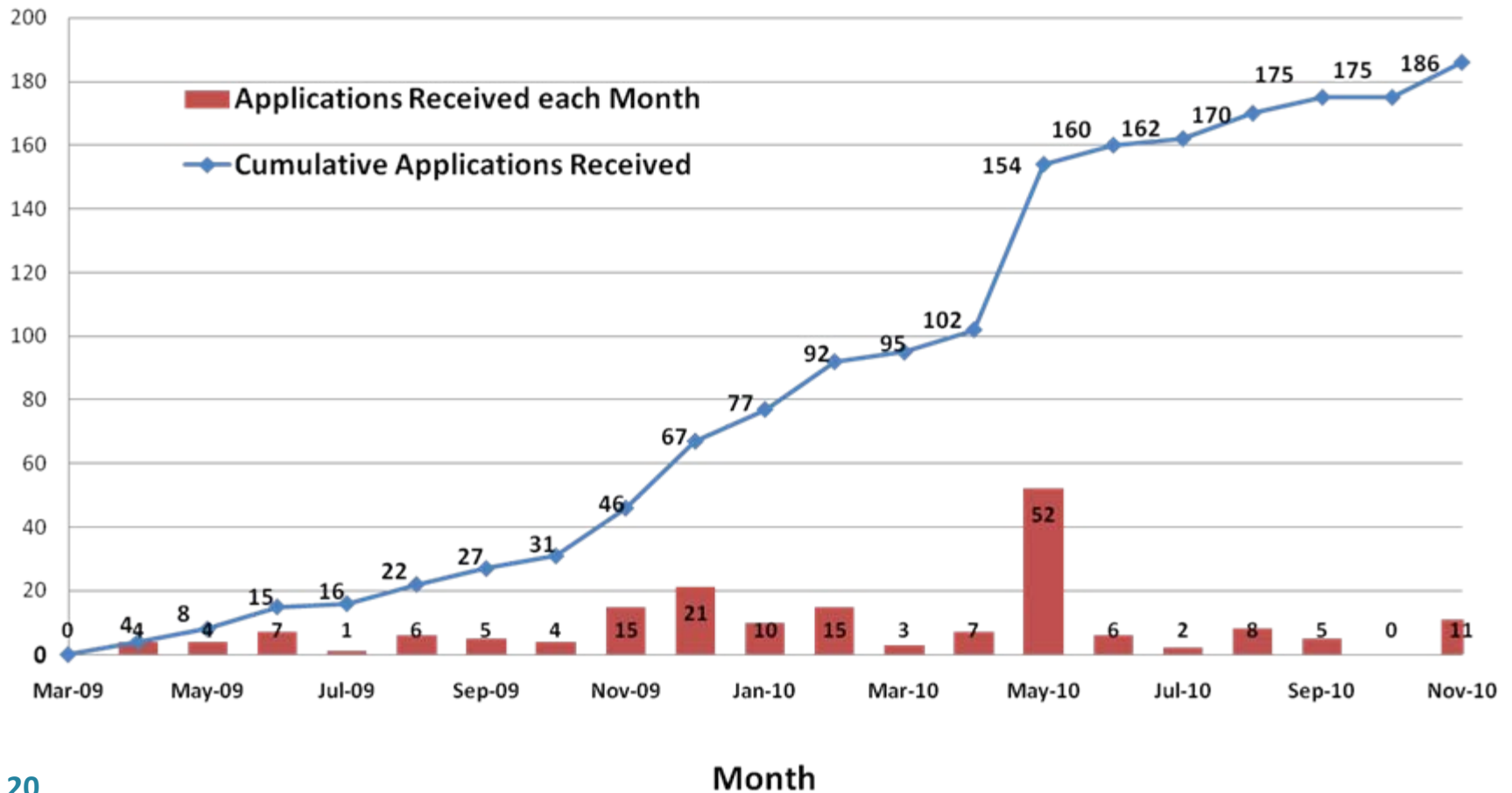


Now Jersey
SmartStart
BUILDING

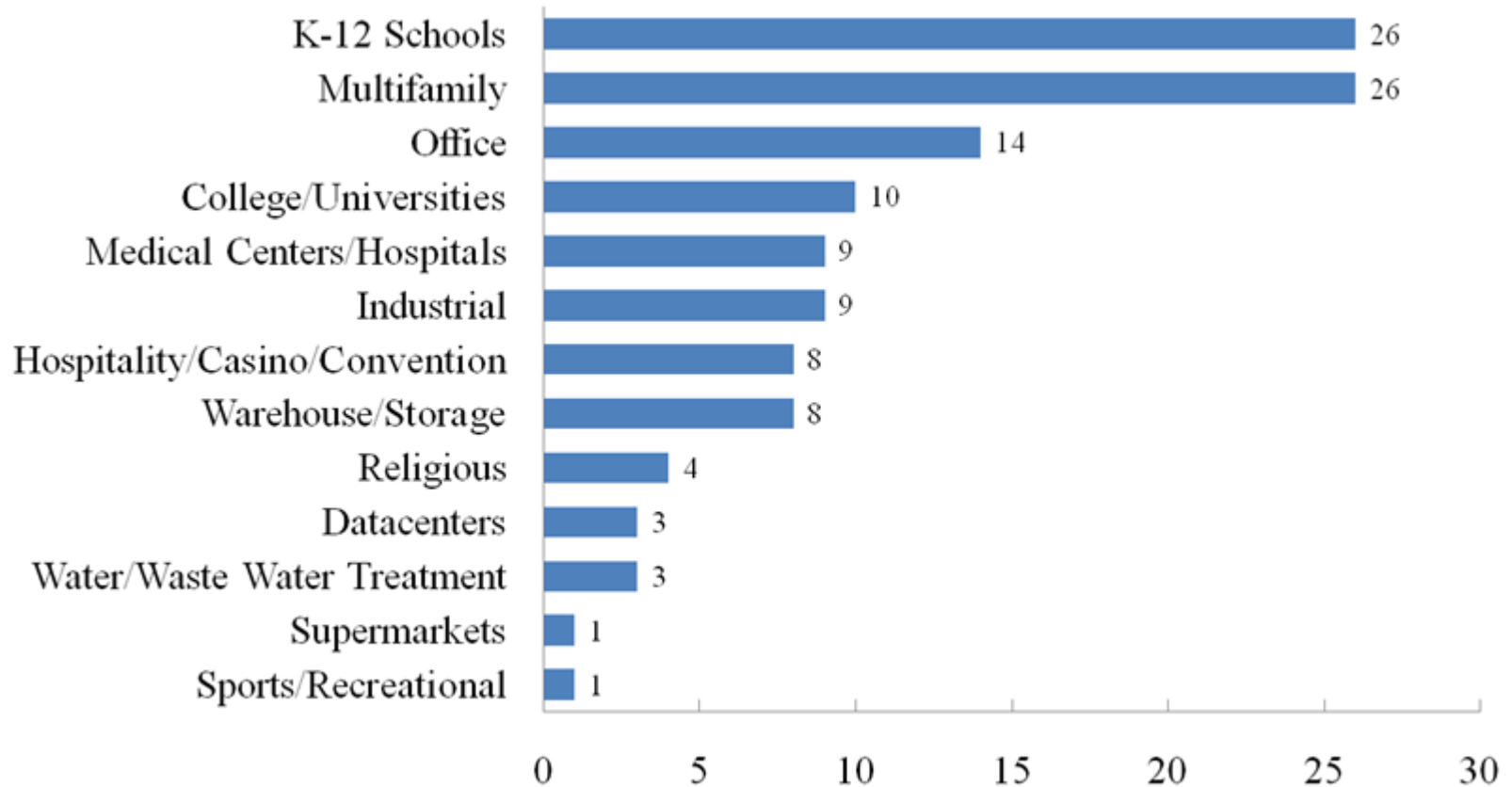


NJ SmartStart Building[®] is a registered trademark. Use of the trademark without permission of the NJ Board of Public Utilities is prohibited.

Existing Buildings – Applications Received



Existing Buildings – Applications Received



P4P Metrics

- Site Energy Savings
 - Predictions Determined Through Modeling
 - Actual Savings Determined on Utility Bills
- Source Energy Savings – 15% Requirement
 - Measured in Portfolio Manager
- Market Transformation
 - Number of Participating and Active Partners
 - Teaming of Partners
 - Improvement in ERP/Modeling Quality

P4P Average Savings

Average per Project:

- 1.2 million kWh annual savings
- 190 kW annual savings
- 4,125 MMBtu annual savings
- \$343,000 in incentives

Based on 28 Approved Energy Reduction Plans

P4P Case Study - Hospital

- 498,000 square feet; 2,500 kW
- ECMs Recommended:
 - Lighting Retrofit
 - Chiller and HVAC Controls
 - Air-sealing
- Incentives: \$745,116 (*~ 40% of total project cost*)
- Energy Savings: 2.7M kWh/yr; 222 kW/yr; 11,000 MMBtu/yr (*15% savings from baseline*)

Case Study – Office Building

- 39,000 square feet; 380 kW; All-Electric
- ECMs Recommended:
 - Lighting Retrofit
 - HVAC DDC Controls
- Incentives: \$141,000 (*~ 48% of total project cost*)
- Energy Savings: 695,000 kWh/yr; 62 kW/yr (*31% savings from baseline*)

Lessons Learned

- Standardized Documents
 - Up-Front Cost for Development
 - Increases Transparency of Requirements
 - Simplifies Reviews, QC of Open Network
- Greater Regulation Might Limit Projects
 - Market Determines the Measures
 - Open Partner Network, not Under Contract

Lessons Learned

- Variety of Project Types
 - Adjust Requirements to Fit Projects
- Different from Other/Typical NJ Programs
 - Learning Curve

Thank you

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