New Jersey's Clean Energy Program™

Honeywell's Residential Energy Efficiency and Renewable Energy Program Plan Filing For Fiscal Year 2016

(7/1/2015 through 6/30/2016)

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New Jersey's Clean Energy Program™

Honeywell's Residential Energy Efficiency and Renewable Energy Program Plan for FY2016

Introduction

This Program Plan provides program descriptions, goals, marketing plans, and budgets for the four residential energy efficiency and two renewable energy programs offered by New Jersey's Clean Energy Program (NJCEP) and to be managed by Honeywell in Fiscal Year (FY) 2016:

Residential Energy Efficiency Programs

- Residential New Construction (New Jersey ENERGY STAR® Homes) Program
- Residential Gas & Electric HVAC (*COOL* and *WARM*Advantage) Program
- Energy Efficient Products Program
- Existing Homes Program (Home Performance with ENERGY STAR®)

Renewable Energy Programs

- Renewable Energy Incentive Program (REIP)
- Solar Renewable Energy Certificate (SREC) Registration Program

The following Program Plans begin with narrative descriptions of each program, including the overall strategy, key activities, and program goals expressed as energy savings. As called for in the May 2014 CRA Straw Proposal, NJCEP established a Program Planning Committee to review the portfolio of residential and commercial energy efficiency programs and recommend improvements. The Program Planning Committee solicited critical input from residential energy efficiency contractors and stakeholders through two subcommittees. The Market Manager team also collected best practices from other leading energy efficiency programs, and reviewed the ERS study benchmarking the performance of NJCEP programs. In this compliance filing, Honeywell is recommending program adjustments to increase program savings while maintaining continuity for market actors and participants.

The energy efficiency program plans presented here for FY2016 represent offerings which together will:

- Result in energy savings of 175,000 MWh and 339,000 DTh annually, and 2,340,250 MWh and 8,507,000 Dtherms over the lifetime of the measures employed;
- Engage with contractors and builders to transform the market and create jobs;
- Remove barriers to customer participation through instant discounts and financing options;
- Streamline, automate, and aggregate program processes in order to increase effectiveness;
- Refresh the marketing approach through new customer and market research, identification of behavioral drivers and implementing new sales tools;
- Continue to support coordination with New Jersey utilities and their respective Residential Energy Efficiency Programs; and
- Continue to provide services to eligible customers while improving New Jersey's position as a national leader in forward facing initiatives that support new technologies and market transformation.

Sandy Storm Response

At the end of October 2012 many New Jersey homes were severely impacted by a storm of historical proportions referred to as "Sandy". Many homes experienced flooding that damaged heating, cooling, hot water and appliance equipment. Some homes were completely destroyed. Recovery efforts range from replacing damaged equipment to efforts to rebuild homes destroyed by the storm.

The need to replace damaged equipment and homes offers the opportunity for the NJCEP to play a vital role in assisting in the rebuilding efforts and to encourage the installation of energy efficient equipment. This will reduce energy costs for homeowners over the life of the equipment being replaced and result in environmental benefits through reduced air emissions.

The FY2016 programs will see the continuation of a series of Storm Response incentives which targets participants' whose residences are within storm damage areas noted by the Office of Energy Management. Participants in these areas who demonstrate that they have incurred storm related damage are considered

qualifying participants for enhanced Sandy incentives. Specific information on the Sandy response programs is provided within each program description to follow.

Following the program descriptions are three Appendices. **Appendix A** represents the FY2016 residential energy efficiency and renewable energy Marketing Plan. **Appendix B** provides a summary of total FY2016 program budgets, broken down by budget category. **Appendix C** presents the electricity and gas savings targets associated with the Energy Efficiency Program Plans for the FY2016 program.

New Jersey's Clean Energy Program™

FY2016 Residential New Construction Program

Revised March 18, 2016

Description

The NJ Clean Energy Program's Residential New Construction Program (NJCEP RNC Program) is designed to maximize participation as well as increase the energy efficiency and environmental performance of residential new construction in New Jersey.

The NJCEP RNC Program is market-based and relies on builders and raters to build to and utilize national platforms including IECC 2015, EPA ENERGY STAR Certified New Homes Program, EPA ENERGY STAR Multifamily High- Rise Program, and the DOE Zero Energy Ready Home Program, which are defined by core efficiency measures, energy modeling, rater and builder oversight and check lists to ensure quality installation. While the national programs provide structure and guidelines, NJ uses the platforms to create "tiers" in order to accommodate the NJ market and baseline construction practices in the state.

The NJCEP RNC Program has the long-term objective of transforming the market to one in which a majority of residential new construction in the state is "net zero-energy," i.e. extremely efficient buildings whose low energy needs can be met by renewable energy generation.

There is an issue that may affect the NJCEP RNC Program, as follows:

- REMRate modeling software modifications to comply with ANSI/RESNET Standard 301-2014 are pending. This change will likely increase the HERS index of modeled homes. The change will automatically become effective on the effective date of RESNET's decision, which is currently expected to be July 1, 2016.

There are a number of market barriers to efficiency investments in new construction in New Jersey. Key among these are:

1. A slow return from the sharp impact of the economic downturn on the housing market. Although this is expected to improve in FY2016, housing starts are still lower than during peak of the market;

2. Builders do not always see the value of the additional administrative procedures and associated costs of ENERGY STAR especially where the upgrade requirements are not linked specifically to energy savings;
3. Conflicting design criteria (i.e. builders who make design, and procurement, and construction decisions do not pay the homeowner operating costs associated with those decisions);
4. Lack of information regarding the benefits of efficiency and environmental performance on the part of consumers, builders, lenders, appraisers, realtors and others;
5. Limited technical skills on the part of some of the builders and their subcontractors to address key elements of efficiency; and
6. Inability of consumers, lenders, appraisers and others to differentiate between efficient and standard homes.

This program employs several key strategies to overcome these barriers including:

- Direct incentives to builders of homes that meet program standards.
- A multiple tiered approach that allows participation across efficiency levels, entices new builders to the program, prepares the NJ construction market for the adoption of IECC 2015, and promotes increased efficiency and quality-assurance with higher incentives.
- Expanded marketing assistance to builders to promote the energy and environmental benefits of NJCEP RNC Program participating projects.
- Utilization of EPA ENERGY STAR and DOE Zero Energy Ready Home website to help promote residential energy programs.
- Technical assistance to inform builders and their subcontractors on details of the program tiers and how to comply with the rigorous performance requirements.
- ENERGY STAR certification, inspections and testing through third-party rating companies, competing in an open market for services and Market Manager Certifications.

The FY2016 program will continue to offer multiple tiers for participation with applicable incentives. The tiers are ENERGYEfficient Home (Tier 1), ENERGY STAR Home (Tier 2) and Zero Energy Ready Home (ZERH) (Tier 3). New for FY2016 is the addition of Zero Energy Home 100% Renewables (Tier 3 Plus). This tier offers additional incentives for builders who want to build true zero energy homes incorporating renewable energy to meet the entire modeled load of the building.

Enrollment Procedures

1. Publicly funded projects will receive an Enrollment Letter and funds will be committed to each project. These projects will expire according to building type:
   a. Single Family projects expire in one year
   b. All other building types will expire in two years.
2. Applicants must submit a permitted set of plans with the enrollment application. In instances where an applicant is pursuing code compliance through the NJCEP RNC Program an enrollment letter will be issued with the understanding that the applicant must provide the permitted set of plans once the permit is granted.
3. Non-publicly funded projects will receive an Enrollment Letter and no funds will be committed between August 31, 2015 and June 30, 2016
   a. Single Family projects must complete a Pre-Drywall Inspection within 60 days of enrollment. Projects missing this deadline will be eligible for one 60-day extension if Program is notified of the extension request, prior to the expiration of the original enrollment
   b. All other building types (MS, MF, and MFHR) will have a two-year deadline to complete the project.

IECC 2009 Code Participation Pathways

ENERGYEfficient Home (Tier 1)
This tier helps prepares the market for the pending adoption of IECC 2015 by incorporating many of the requirements of the new code. While these homes will not be fully compliant with IECC 2015, they will allow builders to start to prepare to meet the requirements of IECC 2015 and will likely recruit new builders to the program. These homes will carry the NJ ENERGYEfficient Home label. The incentive structure within this tier will be performance based with higher incentives for higher performance using the HERS index as the indicator.

ENERGY STAR Home (Tier 2)
Builders that enroll in Tier 2 will satisfy the requirements for ENERGY STAR Version 3 utilizing the Performance Path, including full inspection checklist requirements. Homes that meet these requirements will be ENERGY STAR certified. The incentive structure within this tier will be performance based with higher incentives for higher performance using the HERS index as the indicator.

Zero Energy Ready Home (Tier 3)
This tier of the program recognizes the highest energy efficiency achievement in new homes. It is an example of New Jersey's national leadership in residential new construction, and has been showcased at several energy efficiency industry conferences as an example for other programs to follow. Program requirements include meeting or exceeding all DOE Zero Energy Ready Homes technical standards including compliance with ENERGY STAR Homes Program and all checklists, meet 2012 IECC insulation levels and certify to EPA's Indoor airPlus Program. The incentive structure within this tier will be performance based with higher incentives for higher performance using the HERS index as the indicator.

Zero Energy Home 100% Renewables (Tier 3 Plus)
This tier has all of the same requirements as Tier 3 with the additional requirement that 100% the building's modeled energy usage be met by renewable energy systems installed at the time of completion of the home. The incentive structure within this tier will be performance based with higher incentives for higher performance using the HERS index as the indicator. Incentives will be paid based upon the HERS score before the addition of renewables.

ENERGY STAR Multifamily High Rise
Multifamily buildings at 4 to 6 floors are eligible for ENERGY STAR Multifamily High-Rise (MFHR Program). The incentive structure within this program is variable based upon building performance.

Target Market and Eligibility

Single family, multi-single ("townhome"), low-rise and high-rise multi-family buildings (up to 6 stories) are eligible for NJCEP RNC Program benefits if the home uses natural gas and/or electricity supplied by a New Jersey public utility. The target markets for this program are builders and raters of new construction units.

Multi-family buildings can either be consider low-rise (which participate in Tier 1-3) or high-rise (which participate in MFHR Program) depending on several factors including number of stories, heating and cooling systems and square footage of commercial space in building. NJCEP RNC Program uses the NJ Multifamily New Construction Program Decision Tree (the "Decision Tree") to determine NJCEP RNC Program eligibility.1

[1]The NJ Multifamily New Construction Program Decision Tree is available at: http://www.njcleanenergy.com/ c72e

The NJCEP RNC Program will also enroll any existing home undergoing substantial ("gut") renovation or remodeling that meets the above criteria.

New homes are not eligible for participation or incentives under the Residential Gas and Electric HVAC program (*COOL*Advantage/*WARM*Advantage).

Program Technical Requirements

To qualify for the FY2016 Program, a home must meet *ENERGY*Efficient Home (Tier 1), ENERGY STAR Home (Tier 2), Zero Energy Ready Home (Tier 3), Zero Energy Home plus 100% renewables (Tier 3 Plus), or ENERGY STAR Multifamily High Rise requirements.

The technical detail presented for each tier is a summary that represents the majority of the program requirements. The full technical specifications for NJCEP RNC program compliance can be requested from the Market Manager. The ENERGY STAR and Zero Energy Ready Home program requirements (e.g. checklists, standards and modeling inputs) are periodically updated and supersede technical requirements listed in this Compliance Filing.

***ENERGY*Efficient Home (Tier 1) Requirements:**

The Tier 1 technical requirements strive to create a balance between meeting the IECC 2015 mandatory requirements, while recognizing the difficulty for multifamily and smaller homes to meet the performance-based requirements including infiltration levels and lower HER indices. All Tier 1 homes must meet the IECC 2015 mandatory requirements from Residential Provisions including:

- Construction documents required (R103.2)
- Thermal envelope efficiency shall be greater than or equal to the levels of efficiency in Table 402.1.2 or 402.1.4 of the IECC 2009 International Energy Conservation Code.
- *ENERGY*Efficient Home Checklists listing mandatory requirements of IECC 2015

The following exceptions from the IECC 2015 mandatory requirements include:

- Exception: Maximum infiltration ACH50 thresholds as noted below

  MF 6 ACH50

  MS: 5 ACH50

  SF: 4 ACH50

- Exception: Maximum HERS Threshold

  MF: HERS 75

  MS: HERS 70

  SF: HERS 65

ENERGY STAR Home (Tier 2) Requirements:

Meet all EPA ENERGY STAR Home v3.0 Performance Path standards[2] including:

- Meet or exceed the ENERGY STAR HERS Index Target
- Comply with all ENERGY STAR mandated checklists

Additional NJCEP RNC Program Requirements:

- Construction documents required (R103.2)
- Maximum HERS index

  MF: HERS 75

  MS: HERS 70

  SF: HERS 65

[2] ENERGY STAR New Homes Standards: http://www.energystar.gov

Zero Energy Ready Home (Tier 3) Requirements:

Meet or exceed all DOE Zero Energy Ready Home technical standards[3] including:

- Comply with ENERGY STAR Home Program and all checklists
- Meet 2012 IECC insulation levels
- Certify to EPA's Indoor airPlus Program

Additional NJCEP RNC Program Requirements:

- Maximum HERS index of 50

Zero Energy Home 100% Renewable (Tier 3 Plus) Requirements:

Meet or exceed all Tier 3 requirements as described above.

Additional NJCEP RNC Program Requirements:

- 100% the building's modeled site energy usage be met by renewable energy systems installed onsite at the time of completion of the home

ENERGY STAR Multifamily High-Rise Requirements:

Meet or exceed EPA ENERGY STAR Multifamily High Rise (MFHR) Program standards[4] including:

- A 15% more energy efficient than MFHR buildings built to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 90.1-2007
- Follow Performance Path which utilizes ASHRAE approved energy modeling software to determine energy savings of a customized set of measures

[3] Zero Energy Home Standards: http://energy.gov
[4]Multifamily High-rise Standards: http://www.energystar.gov

Incentives

The program offers incentives for Tiers 1 through 3 based on HERS scores.

Table 1: FY2016 Financial Incentives per Single Family Unit for ENERGYEfficient Home (Tier 1), ENERGY STAR Home (Tier 2), Zero Energy Ready Home (Tier 3), and Zero Energy Home (Tier 3 Plus)

	Tier 1	Tier 2	Tier 3	Tier 3 Plus
HERS (Before Renewables)	*ENERGY*Efficient Home	ENERGY STAR Home	Zero Energy Ready Home	Zero Energy Home 100% Renewables
65	$750	$1,750		
60	$1,000	$2,000		
55	$2,000	$3,000		
50	$3,500	$4,500	$6,500	$9,500
45	$6,250	$7,250	$9,250	$12,250
40	$9,250	$10,250	$12,250	$15,250
35	$12,750	$13,750	$15,750	$18,750
30	$16,250	$17,250	$19,250	$22,250
25	$17,250	$18,250	$20,250	$23,250
20	$18,250	$19,250	$21,250	$24,250

Table 2: FY2016 Financial Incentives per Multi Single Family Unit for ENERGYEfficient Home (Tier 1), ENERGY STAR Home (Tier 2), Zero Energy Ready Home (Tier 3), and Zero Energy Home (Tier 3 Plus)

	Tier 1	Tier 2	Tier 3	Tier 3 Plus
HERS (Before Renewables)	*ENERGY*Efficient Home	ENERGY STAR Home	Zero Energy Ready Home	Zero Energy Home 100% Renewables
70	$375	$1,125	$0	$0
65	$563	$1,313	$0	$0
60	$750	$1,500	$0	$0
55	$1,500	$2,250	$0	$0
50	$2,625	$3,375	$4,875	$7,125
45	$4,688	$5,438	$6,938	$9,188
40	$6,938	$7,688	$9,188	$11,438
35	$9,563	$10,313	$11,813	$14,063
30	$12,188	$12,938	$14,438	$16,688
25	$12,938	$13,688	$15,188	$17,438
20	$13,688	$14,438	$15,938	$18,188

Table 3: FY2016 Financial Incentives per Multifamily Family Unit for ENERGYEfficient Home (Tier 1), ENERGY STAR Home (Tier 2), Zero Energy Ready Home (Tier 3), and Zero Energy Home (Tier 3 Plus)

	Tier 1	Tier 2	Tier 3	Tier 3 Plus
HERS (Before Renewables)	*ENERGY*Efficient Home	ENERGY STAR Home	Zero Energy Ready Home	Zero Energy Home 100% Renewables
75	$125	$625		
70	$250	$750		
65	$375	$875		
60	$500	$1,000		
55	$1,000	$1,500		
50	$1,750	$2,250	$3,250	$4,750
45	$3,125	$3,625	$4,625	$6,125
40	$4,625	$5,125	$6,125	$7,625
35	$6,375	$6,875	$7,875	$9,375
30	$8,125	$8,625	$9,625	$11,125
25	$8,625	$9,125	$10,125	$11,625
20	$9,125	$9,625	$10,625	$12,125

Table 4: FY2016 Financial Incentives for ENERGY STAR Multifamily High-Rise

Savings before RE	**Incentive per unit**
15%	$1,250
20%	$1,500
25%	$1,750
30%	$2,000
35%	$2,250

A cooperative marketing offer for participating builders will drive homebuyer demand for qualifying homes. This co-op marketing offer will supplement a Residential New Construction component within the overall marketing campaign of the NJCEP in order to further raise consumer demand. These efforts will work together with the EPA's plans for an aggressive national

campaign to promote the new ENERGY STAR standard and will facilitate the program's efforts to maintain builder participation in the face of the broader economic downturn and increased requirements.

Financial Incentives for Legacy Climate Choice Homes

Effective July 1st, 2014 the Market Manager ceased to provide ratings services for Climate Choice Homes (CCH) units in anticipation of the transition of Tier 3 to the open rater marketplace. To provide builders with these legacy ratings processes for CCH units enrolled prior to the implementation of the new Tier 3 Zero Energy Ready Home (ZERH), the program will provide an additional incentive of $1,600.00 to for each completed legacy CCH unit. It is expected that there will be a limited number of CCH units that are not completed prior to the implementation of the ZERH tier.

Financial Incentives for Legacy (enrolled prior to September 1, 2015) participating projects

For Tier 1-3, projects enrolled after September 1, 2015 will be subject to the new program tier, eligibility criteria, enrollment criteria and incentive structure. Projects (Legacy Projects) enrolled prior to September 1, 2015 will have one year to complete the program under the prior program criteria. Incentives will be paid according to the structure in place on the date the project was registered. Projects will have 1 year from the project registration date to complete or re-enroll; otherwise, they will be deactivated in the system. Legacy Projects completing after June 30, 2016 will have to complete under the new program criteria and incentive structure as described in sections 1 through 5 above. MF and MFHR Projects have longer construction timelines and do not need to enroll annually if enrolled prior to September 1, 2015.

Program Changes effective for homes permitted under IECC 2015 Code

On September 21st 2015 the NJ DCA adopted the IECC 2015 energy code with scheduled enforcement for homes permitted on or after March 21st 2016. In order for the NJCEP RNC program to remain an above code incentive program the following changes have been made.

- Tier 1 *ENERGYEfficient* home will be eliminated
- Tier 2, now called ENERGY STAR Home, will change from the requirements of Energy Star Certified Homes Version 3.0 to Version 3.1

- Tier 3, now called Zero Energy Ready Homes (ZERH) and Tier 3 plus, now called Zero Energy Home 100% Renewable or ZERH + RE, will use Energy Star Certified Homes version 3.1 as a baseline instead of version 3.0 for homes permitted after March 21, 2016.
- A new incentive will be paid as an additive to any tier for compliance with the ERI Pathway (Section R406 of the IECC 2015)
- ENERGY STAR Multifamily High Rise will align with EPA guidance to allow multiple baseline codes with corresponding percent above code requirements, based on permit date.

Program Technical Requirements

For a residence constructed to IECC 2015 code to qualify for the FY2016 Program, a home must meet:

1. The ERI pathway (section R406 of the IECC 2015)
2. Energy Star Certified Homes version 3.1
3. Zero Energy Ready Home
4. Zero Energy Home plus 100% renewables
5. ENERGY STAR Multifamily High Rise requirements

The technical detail presented below is a summary that represents the majority of the program requirements. The full technical specifications for NJCEP RNC program compliance can be requested from the Market Manager. The Energy Star Certified Homes and Zero Energy Ready Home program requirements (e.g. checklists, standards and modeling inputs) are periodically updated and supersede technical requirements listed in this Compliance Filing.

Code compliance through ERI pathway requirements:

1. Meet all IECC 2015 code requirements from section R406 with the following NJ targets:

Climate Zone 4	54
Climate Zone 5	55

2. Submit a default 2015 Energy Rating Index (ERI) Report from the modeling software.

ENERGY STAR Certified Homes version 3.1 requirements:

Meet all EPA Energy Star Certified Homes version 3.1 Performance Path standards[5] including:

- Meet or exceed the Energy Star Certified Homes version 3.1 HERS Index Target
- Comply with all Energy Star Certified Homes version 3.1 mandated checklists

Additional NJCEP RNC Program Requirements:

- Construction documents required (R103.2)

Zero Energy Ready Home Requirements:

Meet or exceed all DOE Zero Energy Ready Home Performance Path technical standards[6] including:

- Comply with Energy Star Certified Homes Version 3.1 Program and all checklists
- Meet 2015 IECC mandatory envelope levels
- Certify to EPA's Indoor airPlus Program
- Hot water delivery systems shall meet efficient design requirements

Additional NJCEP RNC Program Requirements:

- Maximum HERS index of 50

Zero Energy Home 100% Renewable Requirements:

Meet or exceed all Tier 3 requirements as described above.

Additional NJCEP RNC Program Requirements:

- 100% of the building's modeled electric site energy usage be met by renewable energy systems installed onsite at the time of completion of the home

[5] ENERGY STAR New Homes Standards: http://www.energystar.gov

[6] Zero Energy Home Standards: http://energy.gov

ENERGY STAR Multifamily High-Rise Requirements:

Meet or exceed EPA ENERGY STAR Multifamily High Rise (MFHR) Program standards[7] including:

- Follow Performance Path which utilizes ASHRAE approved energy modeling software to determine energy savings of a customized set of measures
- Align with EPA guidance to allow multiple baseline codes with corresponding percent above code requirements per Table 4, below.

NJCEP will require the application of a specific baseline within six months of EPA imposing such a requirement.

[7]Multifamily High-rise Standards: http://www.energystar.gov

Incentives

Table 1: FY2016 Financial Incentives per Single Family Unit for, Code compliance through ERI pathway, Energy Star Certified Homes, Zero Energy Ready Home, and Zero Energy Home plus 100% renewable energy.

HERS (Before Renewables)	*Code compliance through ERI Pathway*	ENERGY STAR Home	Energy star home plus ERI path code compliance**	Zero Energy Ready Home	ZERH plus ERI path code compliance**	Zero Energy Ready Home 100% Renewables	ZERH 100% renewables plus ERI path code compliance**
65		$1,750					
60		$2,000					
55	$750*	$3,000	$3,750				
54	$750	$3,000	$3,750				
50	$750	$4,500	$5,250	$6,500	$7,250	$9,500	$10,250
45	$750	$7,250	$8,000	$9,250	$10,000	$12,250	$13,000
40	$750	$10,250	$11,000	$12,250	$13,000	$15,250	$16,000
35	$750	$13,750	$14,500	$15,750	$16,500	$18,750	$19,500
30	$750	$17,250	$18,000	$19,250	$20,000	$22,250	$23,000
25	$750	$18,250	$19,000	$20,250	$21,000	$23,250	$24,000
20	$750	$19,250	$20,000	$21,250	$22,000	$24,250	$25,000

* for projects within climate zone 5
**Amounts include $750 for ERI compliance

Table 2: FY2016 Financial Incentives per Multi Single Family Unit for Code compliance through ERI pathway, Energy Star Certified Homes, Zero Energy Ready Home, and Zero Energy Home plus 100% renewable energy.

HERS (Before Renewables)	*Code compliance through ERI Pathway*	ENERGY STAR Home	Energy star home plus ERI path code compliance**	Zero Energy Ready Home	ZERH plus ERI path code compliance**	Zero Energy ready Home 100% Renewables	ZERH 100% renewables plus ERI path code compliance**
70		$1,125					
65		$1,313					
60		$1,500					
55	750*	$2,250	$3,000				
54	$750	$2,250	$3,000				
50	$750	$3,375	$4,125	$4,875	$5,625	$7,125	$7,875
45	$750	$5,438	$6,188	$6,938	$7,688	$9,188	$9,938
40	$750	$7,688	$8,438	$9,188	$9,938	$11,438	$12,188
35	$750	$10,313	$11,063	$11,813	$12,563	$14,063	$14,813
30	$750	$12,938	$13,688	$14,438	$15,188	$16,688	$17,438
25	$750	$13,688	$14,438	$15,188	$15,938	$17,438	$18,188
20	$750	$14,438	$15,188	$15,938	$16,688	$18,188	$18,938
	* for projects within climate zone 5 **Amounts include $750 for ERI compliance						

Table 3: FY2016 Financial Incentives per Multi Family Unit for Code compliance through ERI pathway, Energy Star Certified Homes, Zero Energy Ready Home, and Zero Energy Home plus 100% renewable energy.

HERS (Before Renewables)	*Code compliance through ERI Pathway*	ENERGY STAR Home	Energy star home plus ERI path code compliance**	Zero Energy Ready Home	ZERH plus ERI path code compliance**	Zero Energy ready Home 100% Renewables	ZERH 100% renewables plus ERI path code compliance**
75		$625					
70		$750					
65		$875					
60		$1,000					
55	750*	$1,500	$2,250				
54	$750	$1,500	$2,250				
50	$750	$2,250	$3,000	$3,250	$4,000	$4,750	$5,500
45	$750	$3,625	$4,375	$4,625	$5,375	$6,125	$6,875
40	$750	$5,125	$5,875	$6,125	$6,875	$7,625	$8,375
35	$750	$6,875	$7,625	$7,875	$8,625	$9,375	$10,125
30	$750	$8,625	$9,375	$9,625	$10,375	$11,125	$11,875
25	$750	$9,125	$9,875	$10,125	$10,875	$11,625	$12,375
20	$750	$9,625	$10,375	$10,625	$11,375	$12,125	$12,875
	* for projects within climate zone 5 **Amounts include $750 for ERI compliance						

Table 4: FY2016 Financial Incentives for ENERGY STAR Multifamily High-Rise

New Financial Incentive Table for Multifamily High Rise

Baseline	Savings Before RE	Baseline	Savings Before RE	Baseline	Savings Before RE	Incentive Per Unit
90.1-2007	25%	90.1-2010	20%	90.1-2013 App G 2010 OR 2013	15%	$1,250
	30%		25%		20%	$1,500
	35%		30%		25%	$1,750
	40%		35%		30%	$2,000
	45%		40%		35%	$2,250

Continue to Support Tiered Specifications while Supporting Carryover Tiers

The NJCEP RNC Program will continue to support previous commitments to homes that were certified under the standards that were in effect at the time the commitment was made. The NJCEP RNC Program is unique relative to other NJCEP offerings because of the level of carryover from year to year. The "permit date" triggers the new construction building code to which new homes must comply.

Quality Control Provisions

Market-based delivery of rating services and certifications requires an effective set of standards for quality assurance. The responsibility of builder quality and Energy Star Certifications rests with Raters, Raters Providers and RESNET. It is incumbent upon the program to assure that a robust system for identifying and communicating quality issues exists to manage the credibility of the savings and incentives offered.

To maintain a robust rating marketplace, the Market Manager will perform inspections and conduct oversight processes on raters. Quality Assurance activities will continue to be performed by the Program, in proportion to the track records of raters measured through program inspections. Errors and/or inappropriate rating procedures identified by the Market Manager through QA

inspections will subject rating companies to actions as defined in the contractor remediation process.

In addition to data reviews for completeness of forms and applications, on-site inspections and technical review of buildings and rater files will be required in proportion to the demonstrated proficiency of the builders and raters. Inspection requirements will be adjusted based upon the track record of the program participants. Initial inspection rates for new builders and rating companies will be higher and will decrease as they demonstrate proficiency in proper building techniques and the qualifying requirements of the Program.

Budget

A detailed budget for this program for FY2016 is attached in Appendix B. The FY2016 budget includes direct incentive costs for units both planned to be completed in FY2016 and for homes committed but that may not be completed in FY2016. Commitments are issued for a period of twelve months and are included as committed incentive funds until they expire.

Goals and Energy Savings

The goals for FY2016 for the Residential New Construction Program are listed below. Estimated program savings are subject to change based on the measure mix and changes to the NJ savings protocols over the course of the year.

- Approximately 146,500 in Annual DTh savings and 2,900,000 in Lifetime DTh savings (or the conversion to accepted equivalents such as MMBtu);
- Approximately 12,400 in Annual MWh savings, or 247,850 in Lifetime MWh savings;
- Approximately 2,670 new enrolled units for qualifying residential new construction types in the current year (i.e. single family, townhouse and multi-family buildings eligible to participate in the Program) for projects that have committed to build to NJ *ENERGY*Efficient Home (Tier 1), ENERGY STAR (Tier 2),), New Jersey Zero Energy Ready Home (Tier 3), Zero Energy Home 100% Renewable (Tier 3 Plus) or ENERGY STAR Multifamily High Rise standards;
- Approximately 5,525 completed units for qualifying residential new construction types in the current year (i.e. single family, townhouse and multi-family buildings eligible to participate in the Program) for projects that have committed to build to NJ *ENERGY*Efficient Home (Tier 1), ENERGY STAR (Tier 2), Tier

3), Zero Energy Home 100% Renewable (Tier 3 Plus), or ENERGY STAR Multifamily High Rise standards;

- Maintain a sufficient number of HERS rating companies to actively conduct rating activities in NJ.

New Jersey's Clean Energy Program™
FY2016 Residential Gas & Electric HVAC Program

"New Jersey *WARM*Advantage & *COOL*Advantage"

Description

The New Jersey Residential Gas & Electric Heating, Ventilation, and Air Conditioning (HVAC) Program promotes the availability, selection and purchase of efficient home heating, cooling and water heating equipment, and the quality installation of such equipment. Its long-term goal is to use incentives, supply chain support, and customer outreach and education to make the selection and quality installation of high efficiency residential HVAC equipment the norm in the NJ market. For this program, the market is considered transformed when rebates can be reduced or eliminated without a decrease in market penetration for targeted HVAC equipment or products.

The program must continue to address several market barriers to achieve its goals:

- High upfront cost of new efficient systems compared to repair of older equipment and new inefficient systems;
- Consumers' inability to differentiate, and therefore value, the difference between good and poor quality HVAC installation;
- Consumers' lack of information on the benefits (both energy and non-energy) of efficient equipment and quality installations, particularly during repair, renovation and remodeling;
- Slow uptake; from limited retail and wholesale distribution and availability of newer, higher-efficiency HVAC equipment and products;
- HVAC contractor perception of low value and/or sense of difficulty about program participation; and
- On-going training needs for HVAC contractors on key installation issues including proper installation methodologies, proper unit sizing and utilization and health and safety issues including proper venting of equipment.

The program employs several key strategies to address these barriers:

- Financial incentives for the purchase of gas heating and energy-efficient water heating equipment meeting or exceeding the performance criteria of national and regional standards like ENERGY STAR and CEE specification tiers;

- Financial incentives for the purchase of high efficiency electric cooling and heating equipment, products and controls;
- Financial incentives and program support for HVAC equipment installation that optimizes operating efficiency at time of installation, including Manual J load calculations (including use of software applications) and Manual S equipment selection for cooling equipment;
- Co-operative marketing assistance to trade allies in the direct promotion of high efficiency HVAC equipment;
- Information aimed at consumers to help them make better energy saving purchasing decisions;
- Outreach and education for - as well as in collaboration with - HVAC manufacturers, distributors and contractors;
- Sales training for contractors (i.e. how to sell efficiency);
- Technical training for HVAC contractors on the proper sizing, selection and installation of HVAC equipment and health and safety concerns regarding orphaned gas appliances;
- Promotion of HVAC technician certification in coordination with nationally recognized technical associations to help raise the knowledge base on NJ contractors on the proper installation of HVAC equipment; and
- Collaboration with regional and national efforts to amplify program influence with support for market-wide initiatives (such as emerging technologies & specification revisions) that advance the interests of the program.

New Jersey's Clean Energy Program will continue to support efforts, where technically and economically justifiable, to upgrade federal appliance efficiency standards. The Program also provides, when necessary, technical support for the development of such upgrades, tracking and monitoring developments, and review and modification of program designs to integrate changes to the standards and codes.

Target Market and Eligibility

*COOL*Advantage promotes the installation of new, energy efficient, residential electric air conditioners and heat pumps. The program covers conventional, centrally ducted air conditioning systems and ductless "mini-split" systems. The program also covers both air-source heat pumps, and ground-source (geothermal) heat pumps. This comprehensive offering enables the program to accelerate

market adoption of recent technology improvements such as inverter-driven compressors and advanced controls enable significantly greater heating and cooling performance by heat pumps.

*WARM*Advantage promotes energy efficient natural gas-fired furnaces, boilers, water heaters and associated equipment for use in residential buildings. The *Warm*Advantage program specifically addresses water heating units that are not planned to be replaced when a furnace is replaced, which can pose a combustion appliance safety issue for the customer, by offering additional incentives for combination space and water heating equipment and participants that change both heating and water heating units at the same time. This is an industry-leading program design that safeguards customers and delivers greater energy savings through the program.

NJ Residential Gas & Electric HVAC program will also, contingent upon availability of funds, continue to support the State's SEP Programs targeting non-IOU electric, oil and propane customers. Should any applications be processed under SEP, the fee for processing these applications will be charged to NJCEP.

In FY2016, the solar domestic water heating (SDHW) initiative will continue to be offered to both residential electric and gas water heating customers.

Offerings and Incentives

*COOL*Advantage

In FY2016, the Program will offer incentives for super-efficient Central Air Conditioners, mini-split units, and heat pumps. Two tiers of incentives for central systems and support for ductless units provides comprehensive coverage for market influence.[8] By supporting equipment that performs well at times of peak electric demand, the program's rebates help minimize the costs associated with grid-wide demand. Performance levels are aimed to align with the levels established by national and regional specification setting organizations such as ENERGY STAR, CEE, as appropriate for the New Jersey market. New program requirements, procedures and/or incentives will take effect after a notification period to program participants (i.e. contractors, etc.) and posting at njcleanenergy.com. Any completed application received after the notification period will be subject to new program rules. Rebate applications for cooling system equipment purchased prior to the end of the notification period will continue to be processed. Contractor and customer outreach and education on the benefits of efficient HVAC equipment will continue to be supported. Incentives levels offered through the *COOL*Advantage Program are noted in Table 4.

[8] The inclusion of lower tier central equipment and revisions to qualifying criteria for ductless equipment is in keeping with the HVAC recommendation for assuring appropriate measure support from the 2015 ERS report entitled, "Review and Benchmarking of the New Jersey Clean Energy Program."

Table 4: COOLAdvantage Customer Incentives[9]

ELIGIBLE EQUIPMENT REQUIREMENTS	FULL INCENTIVE AMOUNT	REQUIRED DOCUMENTATION
Central A/C: SEER ≥ 18 EER ≥ 13	$500	• Efficiency Rating • Compressor/ coil combination ratings (To be replaced as a matched set) • Proper sizing and selection (ACCA Manual J results)
SEER ≥16 EER ≥ 13	$300	
Heat Pumps: **For Central Air-Source Heat Pumps** SEER ≥ 18 EER ≥ 13 & HSPF ≥ 10	$500	• Efficiency Rating • Compressor/ coil combination ratings[10] • Proper sizing and selection(ACCA Manual J results)
SEER ≥ 16 EER ≥ 13 & HSPF ≥ 10	$300	
For Ductless "Mini-Split" Units SEER ≥ 20 EER ≥ 12.5 & HSPF ≥ 10	$300	
For Ground-source (Geothermal) Heat Pumps ENERGY STAR Qualification	$500	

Sandy Storm Response

In addition, qualifying Sandy participants will be entitled to an enhanced HVAC rebate for qualifying heat pumps, A/C and mini-split units of $200 additional per unit over the incentive in place at the time of purchase.

WARM*Advantage*

Continuing in FY2016, *WARM*Advantage will offer incentives for efficient furnaces, boilers and hot water heaters. The program will also continue to offer an incentive to promote the combined upgrade of qualifying space and water heating equipment as well as combination equipment with the goal of achieving greater savings and

[9] From AHRI directory, CEE-AHRI directory or equivalent ENERGY STAR listing.
[10] For ASHPs to be replaced as a matched set.

facilitating the informed and appropriate treatment for any potential combustion appliance safety issues.

Table 5: WARMAdvantage Direct to Customer Incentives for FY2016[11]

EQUIPMENT	MINIMUM EFFICIENCY	INCENTIVE LEVELS
Gas Furnace – Tier 1	≥ 95% AFUE	$250
Gas Furnace – Tier 2	≥ 97% AFUE	$500
Oil Furnace	≥ 85% AFUE	$500
Furnace & DHW Combination	Qualifying Gas Furnace (see Minimum Efficiency for Furnaces noted above); AND EITHER: • a qualifying standalone water heater (see Minimum Efficiency for water heaters below) • OR an indirect-fired water heater attached to the qualifying furnace	$900[12]
Gas Boiler	HYDRONIC: ≥ 90% AFUE STEAM: ≥ 82% AFUE	$300
Oil Boiler	HYDRONIC ≥ 87% AFUE STEAM ≥ 82% AFUE	$300
Boiler & DHW Combination	Qualifying Boiler (see Minimum Efficiency for Boilers noted above) and water heating as noted below: • Integrated water heating and boiler unit (Combi Boilers) • OR a qualifying standalone water heater (see Minimum Efficiency for water heaters below) OR an indirect water heater attached to the qualifying boiler	$900[13]
Water Heater	≥ 0.82 Energy Factor or, ≥ 90% Thermal Efficiency w/sealed combustion.	$500
Power Vented Water Heater	≥0.67 Energy Factor	$500
Heat Pump Water Heater	≥2.0 Energy Factor	$500
Solar Domestic Hot Water	ENERGY STAR certified SRCC OG-300 listed; and SF ≥ 0.5)	$1,200

Sandy Storm Response

Qualifying Sandy participants will be entitled to an enhanced HVAC rebate for qualifying boilers, furnaces, water heaters, boiler-DHW combinations and furnace-DHW combinations, of $200 additional per unit over the incentive in place at the time of purchase.

Incentive Details

Incentives provided for HVAC State Energy Program (SEP) participants will be identical to those provided by the NJCEP Program for similar equipment while funds are available. *COOL*Advantage and *WARM*Advantage incentives will be paid directly to homeowners, or with written consent, assignable to contractors.

COOLAdvantage and WARMAdvantage Pilots

The Boiler Reset Retrofit Controls incentive that was piloted in FY2015 is discontinued for FY2016 due to low participation.

In FY2016, the *WARM*Advantage program will explore offering incentives to retailers, wholesalers, or manufacturers for new high efficiency circulator pumps for boiler systems. The efficient motor and variable-speed devices can save more than 80%of the electricity used by conventional circulator pumps, but due to first-cost barriers, limited availability, and low market awareness, these pumps are seldom considered and rarely replaced in repairs or emergencies. Program approaches that aim “upstream” of the customer have been very successful at addressing the market barriers and could provide a model for accelerating the transformation of the NJ market. By influencing the stocking of efficient pumps, the program may be able to achieve a high market lift.

Planned Program Implementation Activities for FY2016

The following program implementation activities will be undertaken in FY2016:

- Continue processing incentives for heating, water heating, and cooling equipment.

[11] Incentives in effect for purchases made after the FY2016 notification period.
[12] This is the total combined incentive amount for qualifying furnace and hot water heating equipment, and may not be combined with individual NJCEP incentives for furnaces or water heaters.
[13] This is the total combined incentive amount for qualifying boiler and hot water heating equipment, and may not be combined with individual NJCEP incentives for boilers or water heaters.

- Continue processing solar water heating incentives as a *WARM*Advantage program measure.
- Provide monetary incentives and education to participants to replace both heating and water heating systems with high efficiency equipment at the same time to safeguard against potential combustion appliance safety issues.
- Support the training of HVAC contractors and technicians on the proper calculation of heating and cooling loads, system design, installation techniques, and consumer benefits of high efficiency gas heating and cooling equipment and/or any other substantial form of training that is directly related to the promotion of energy efficiency and quality equipment installation. The Program will also support training in the recognition and proper techniques to deal with atmospherically drafted furnace and boiler replacements that result in a stand-alone water heater.
- Provide co-operative marketing incentives to support approved trade ally promotions of high efficiency space heating, cooling, and water heating equipment. The program will also pursue opportunities for enhancing cross-marketing with other programs, particularly the Utility approved enhanced incentive and on-bill repayment programs.

Quality Control Provisions

The Market Manager maintains documented policies and to ensure consistency in the processing and quality control for all incentive program participants. All applications are reviewed for verification of the qualifying equipment efficiency rating, proper sizing and proper installation. Qualifying equipment efficiency levels are verified with the AHRI, AHRI/CEE directory of air conditioning and heat pump equipment, the eligible products list from ENERGY STAR, or compared against the performance criteria listed in each appliance category. Each application and its information are entered into a database which checks for duplicate applicants through an equipment serial number comparison.

On an ongoing basis, units from both electric and gas rebate applications are selected for an in-depth quality control review and inspection. Quality Control includes a paperwork review of the application and a field inspection to verify qualifying equipment installations and proper installation. A field inspection report is prepared for each inspection.

Budget

A detailed budget for this program for the FY2016 program is attached in Appendix B.

Goals and Energy Savings

The goals for FY2016 for the *WARM*Advantage & *COOL*Advantage Programs are listed below. Estimated program savings are subject to change based on the measure mix and changes to the NJ savings protocols over the course of the year.

- Achieve approximately 203,500 in Annual DTh and 3,935,500 in Lifetime DTh savings (or the conversion to accepted equivalents such as MMBtu);
- Achieve approximately 9,460 in Annual MWh and 165,475 in Lifetime MWh;
- Process applications for approximately 10,800 efficient central air conditioner, heat pump, and mini-split equipment installations statewide;
- Process approximately 16,125 energy efficient gas space heating and/or water heating equipment incentive applications statewide; and
- Conduct approximately 125 HVAC trainings on either Manual J load calculations (including use of software applications), Manual S equipment selection, proper charging and airflow, technical material that must be understood to pass the North American Technician Excellence (NATE) and/or Building Performance Institute (BPI) certification tests, duct sealing, duct design using ACCA Manual D, ENERGY STAR sales techniques, high efficiency gas heating system installation and selection practices, and any other substantial form of training that is directly related to program goals. Any training conducted using the same curricula provided by the program, including training provided by industry allies, shall count towards the goal.

New Jersey's Clean Energy Program™
FY2016 Energy Efficient Products Program

Description

The Energy Efficient Products Program promotes the sale and purchase of ENERGY STAR qualified and other energy efficient products including lighting, appliances and consumer electronics, while also supporting the "early retirement" and recycling of existing inefficient products in New Jersey households. The long-term goal of the Program is to transform the market for energy-efficient products in New Jersey by removing barriers to new technologies and providing participants with the knowledge and motivation they need to make cost-effective purchases.

The Energy Efficient Products Program provides targeted rebates and messaging to consumers, community partners, manufacturers, and retailers for the purchase/sale of selected energy efficient products. The program continues to transition towards greater upstream and midstream initiatives that leverage manufacturer, distributor and retailer incentives and marketing dollars. These initiatives accelerate market transformation and may decrease program operating costs.

Aligned and complementary to the Residential HVAC, New Construction, and Home Performance programs, the Energy Efficient Products Program is focused on the reduction of plug load and lighting energy usage in New Jersey households. Significant gains in market share of higher efficiency products through coordinated voluntary efficiency programs nationwide have resulted in rapid advancements in federal minimum standards, resulting in long-term energy savings. The program also provides, when necessary, technical support for the development of such upgrades to federal standards, tracking and monitoring developments, and review and modification of program designs to integrate changes to the standards and codes.

The program employs several key strategies to deliver energy savings to New Jersey residents including:

- Educating consumers on the energy usage of common household appliances and the role that energy efficiency can play in reducing home energy consumption;
- Supporting a retail infrastructure that offers a range of energy efficient qualified product choices to consumers;
- Offering marketing and training support for retailers, manufacturers and contractors selling energy efficient products;

- Moving beyond traditional retail outlets by working with event-based initiatives and other innovative approaches to bring energy efficient technologies to target populations that do not respond to conventional, retail-based marketing approaches;
- Offering consumer access to energy efficient products through an online "store";
- Supporting the development of NJ State appliance standards, minimum federal appliance efficiency standards and ENERGY STAR appliance specifications, as appropriate;
- Helping to develop and introduce new, energy efficient technologies such as super-efficient clothes dryers and set top boxes;
- Supporting and making consumers aware of product recycling and disposal services to address product lifecycle environmental impacts;
- Leveraging national energy efficient programs, promotions, marketing materials, and advertising as appropriate;
- Transitioning from end-user rebates to upstream incentives to reduce first cost barriers of energy efficient lighting and appliances; and
- Coordinating with NJ utility sponsored programs to co-brand and leverage customer participation and savings.

Target Market and Eligibility

In FY2016, the Energy Efficient Products Program will continue to provide targeted rebates to consumers and retailers for the purchase/sale of selected energy efficient products. At the same time, the program will continue the transition towards greater upstream and midstream initiatives that leverage manufacturer, distributor, and retailer incentives and marketing dollars. This strategy, which has been pioneered by New Jersey and a select group of other efficiency programs, increases available funds for incentives and decreases program operating costs. The program will also offer marketing and training support to new retailers, manufacturers, contractors, and other organizations while continuing to maintain existing partner relationships. The program will continue to support incentives for non-IOU customers paid with federal State Energy Program funds provided such funds are allocated to programs managed by Honeywell. Should any applications be processed under the State Energy Program, the fee for processing these applications will be charged to NJCEP.

Offerings and Incentives

In FY2016, the Energy Efficient Products Program will continue to offer retail price incentives through upstream and midstream markdown promotions for qualified lighting products and advanced power strips and will also offer midstream promotions for clothes washers, clothes dryers and refrigerators with retail partners based on market opportunities. For customers of retailers unable to participate through the midstream promotions, the program will offer the opportunity to apply for energy efficient clothes washer, clothes dryers and refrigerator incentives through either the existing direct mail-in process or a new online form submission through the NJCEP website in FY2016. These incentives will be supported with a variety of promotional approaches, including leveraging Environmental Protection Agency (EPA) national ENERGY STAR campaigns. The FY2016 budget also includes provisions for continuing the promotion of energy efficient consumer electronics and an "early-retirement" program for refrigerators and freezers.

On-line Energy Audit

During FY2016 the program will coordinate with utility sponsored audits and home energy reports, providing links from the NJCEP website and marketing NJCEP offerings to the extent possible.

Incentives for ENERGY STAR qualified lighting products

In FY2016, the Program will continue to increase focus on incentives of ENERGY STAR qualified Solid State Lighting (SSL) products also known as LEDs, while continuing to reduce retail prices and incentives for the most common, most readily available, lower priced CFLs.[14] Through an RFP process, incentives will be provided for eligible products (up to a negotiated volume) sold by selected New Jersey retailers during promotional periods. The FY2016 Lighting Markdown RFP will reflect:

- Modest reductions (~ 10%) in markdown incentives, continued market shift to higher performing LEDs and continued price reductions for standard CFLs;
- The removal of most fixture incentives with the exception of down lights based on the growing market share of LED and CFL replacement lamps; and
- Removal of incentives for standard single pack CFLs to reflect the low cost of multi-packs as a more cost-effective option for customers and the program.

[14] The transition toward LEDs and away from CFLs is in line with a recommendation included in the 2015 ERS report entitled, "Review and Benchmarking of the New Jersey Clean Energy Program."

Incentives will vary by type of product and/or distribution channel, based on negotiations with manufacturers and/or retailers. Based on experience with the earlier initiatives and regional promotions, the FY2016 mark down incentives will be: a maximum of $0.50 per standard CFL bulb (multi-pack only) and $1.50 per specialty CFL bulb (multi-pack only), $8.00 per LED bulb and a maximum of $12.00 for LED downlights. Additionally, the program will identify opportunities to develop new potential distribution channels for lighting in order to accelerate the market adoption of SSL and other high efficiency lighting products.

Incentives for ENERGY STAR qualified appliances and equipment

The FY2016 program will offer mail-in (or online form) and midstream point-of-sale incentives in partnership with New Jersey retailers for promotions of higher performance ENERGY STAR clothes washers, clothes dryers and refrigerators. In all three product types, incentives for two tiers of performance will be offered to support new ENERGY STAR products and to promote higher efficiency levels to New Jersey residents.

The Program performance criteria for clothes washers in FY2016 will align with the new Energy Star V7.0 specification, which was effective in March 2015 that uses a new efficiency metric referred to as IMEF (Integrated Modified Energy Factor) and provides for separate performance criteria for front load and top load washers. The higher tier incentive for washers will align with the current CEE Tier 2 specification to support increased market share of the highest efficiency models.

For refrigerators, the Program performance criteria in FY2016 will align with the new Energy Star V5.0 specification, which was effective in March 2015 and which reflects a 10% improvement over the measured 2014 Federal Minimum Efficiency Standard. Similar to washers, the higher tier incentive for refrigerators will align with the current CEE Tier 2 specification to support increased market share of the highest efficiency models.

The new ENERGY STAR clothes dryer initiative is an example of New Jersey leading the industry. The New Jersey Clean Energy Program invested in research on the market potential for super-efficient clothes dryers in 2010. That effort grew into a nationwide initiative, the Super Efficient Dryer Initiative (SEDI), which resulted in manufacturers making investments in bringing new technologies to market and in the ENERGY STAR Program developing specifications to recognize the newly released more efficient products. In FY2016, the program will continue to provide incentives for two tiers of qualified dryers: those meeting the new ENERGY STAR V1.0 specification, which was released in May 2014, and those meeting the even more efficient 2014 ENERGY STAR Emerging Technology Award criteria.

During FY2016, the Program will continue to evaluate shifting to a single higher tier performance criteria based on the rate of market share of ENERGY STAR products for clothes washers, dryers and refrigerators. The Program will also evaluate opportunities to shift to a single rebate for paired washers and dryers.

In addition, the program will offer direct to consumer incentives submitted online or by mail for clothes washers, refrigerators and dryers to support customers of those retailers unable to participate through the midstream promotion process. The program will select participating retailers based on ability to participate during the promotional periods.

The program will continue to provide midstream point-of-sale incentives for advanced power strips with a maximum incentive range of $15.00 - $40.00. In FY2016, incentives for advanced power strip rebates will increase for Tier 1 to $15 and introduce a new Tier 2 rebate at $40 for the community-based promotions or point-of-sale rebate with participating retailers.

In FY2016, the Program will also evaluate a potential New Jersey pilot of the ENERGY STAR Retail Products Platform to maintain a viable long-term, cost-effective products program and leverage a national platform for greater engagement with retailers to accelerate the stocking and sales of certain ENERGY STAR product categories including ENERGY STAR certified clothes dryers, air cleaners, freezers, entertainment system sound bars, home theater systems and room air conditioners. Incentives will vary by type of product and/or distribution channel, based on negotiations with manufacturers and/or retailers.

Table 6: FY2016 Appliances and Equipment Incentives

EQUIPMENT	INCENTIVE TIERS	PERFORMANCE CRITERIA	FY2016 REBATE
Clothes Washer	Tier 1 (Aligned with ENERGY STAR V7.0)	Front Load - IMEF ≥ 2.28, IWF ≤ 3.7 Top Load - IMEF ≥ 2.06, IWF ≤ 4.3	$50
	Tier 2 (Aligned with CEE Tier 2)	IMEF ≥ 2.74, IWF ≤ 3.2	$75
Clothes Dryer	Tier 1 (Aligned with ENERGY STAR V1.0 Vented Gas)	CEF ≥ 3.48	$100
	Tier 1 (Aligned with ENERGY STAR V1.0 Vented /Ventless Standard Electric)	CEF ≥ 3.93	
	Tier 2 (Aligned with ENERGY STAR 2014 Emerging Technology Award)	CEF ≥ 4.30	$300
Refrigerator	Tier 1 (Aligned with ENERGY STAR V5.0 =>7.75 cu ft)	10% over the measured Federal Minimum Efficiency Standard	$50
	Tier 2 (Aligned with CEE Tier 2 =>7.75 cu ft)	15% over the measured Federal Minimum Efficiency Standard	$75
Advanced Power Strip	Tier 1	Provides standby power management	$15 (Maximum)
	Tier 2	Provides active power management	$40 (Maximum)

Appliance Early Retirement

In FY2016, the Program will continue the initiative to offer a $50 incentive to New Jersey residents for turning in their working old, inefficient secondary refrigerators and freezers for recycling as well as an incentive to the recycling implementation partner of up to $107 for the removal and recycling of that equipment.

The Program will evaluate a potential new pilot in FY2016 for a piggy-back rebate with retailers participating in the midstream, point-of-sale incentives for ENERGY STAR refrigerators to support the pickup and recycling of replaced primary refrigerators in addition to the existing requirement for secondary refrigerator/freezers.

Creative Initiatives

The goals of the Creative Outreach and Education Promotion are to:

- Create awareness of NJCEP programs through events that attract consumers and provide opportunities to disseminate program information and interact with consumers to answer questions;
- Educate consumers on the benefits of energy efficient lighting (primarily LEDs) and appliances. Encourage consumers to move beyond the "first step" of using energy efficient lighting products and to take the next step to adopt more significant energy efficiency measures;
- Create awareness of no/low cost methods of reducing energy consumption (such as addressing standby loads, the use of advanced power strips etc.); and
- Focus on residential market channels not served through the markdown lighting initiative.

In FY2016, the Program will continue this initiative to support multi-pack CFLs, LED bulbs, fixtures and downlights, and smart power strips through outreach events aimed at employee distributions or other approved approaches.

Consumer Electronics & Plug Loads

In FY2016, the Program will explore expanding the cable set top box (STB) initiative to incorporate whole-home replacement of existing, lower efficiency cable boxes with thin client technology. Qualifying high efficiency set top boxes will meet the new ENERGY STAR V4.1 specification reflecting the recent increased voluntary agreements by the industry to achieve a minimum ENERGY STAR V3.0 for all new cable boxes. The shift towards whole-home replacement will maximize the energy savings delivered to the customer and align with the market approach

of cable service providers with multi-room technology. Incentives are negotiated with partners with a maximum incentive of $11.20 per ENERGY STAR V4.1 cable box and a maximum of $100 for a whole-home replacement of existing inefficient cable boxes.

Planned Program Implementation Activities for FY2016

The Products program will be offered on a consistent program design and implementation basis to ensure retailer support statewide. The following program implementation activities will be undertaken in FY2016.

General Activities

The Market Manager will maintain existing retailer base and recruit new retailers as needed. In FY2016, the Program will continue to leverage retailer participation in developing and distributing collateral and "point of purchase" (POP) materials for product groups and in providing retail associate training and generating consumer awareness at the point of product display. The Market Manager will also continue to promote the Program on an as-needed basis at NJCEP sponsored events.

Change The World - Start With ENERGY STAR

The Program will continue to support ENERGY STAR's Change The World – Start With ENERGY STAR program which strengthens diverse lighting promotions throughout the year, including retail price markdowns with select retailers.

Online Store

Since 2008, the Program has offered an online retail store as part of the NJCEP lighting promotions. In FY2016, the Program will continue to promote energy efficiency through the availability of high quality, energy efficient lighting and other products.

Residential Appliances

Residential Appliance initiatives will continue the strategy of midstream approaches for residential appliance point of sale incentive. This approach strengthens the Program's partnership with retailers in supporting the most efficient products while reducing the market barriers for consumers. In addition, it allows leveraging retailer matching rebates where available. In FY2016, this initiative will continue to support select ENERGY STAR qualified clothes washers,

clothes dryers and refrigerators. In FY2016 the Program will introduce a new online form submission process for rebate applications to streamline and improve the customer rebate fulfillment process.

Appliance "Early Retirement" Program

In FY2016, the Program will build on the market-based effort to promote and facilitate the early retirement of inefficient working secondary refrigerators/freezers. Implementation will include:

- A marketing campaign appropriate to the year's unit goals and leveraging materials developed through the 2015 ENERGY STAR "Flip Your Fridge" campaign;
- In-house appliance pickup and direct access to participants to promote other NJCEP referrals;
- Tracking of individual units and recording of the recovery and destruction of all hazardous materials in compliance with the EPA's Responsible Appliance Disposal (RAD) guidelines; and
- Evaluating retail partnerships that support removal and recycling of refrigerators and freezers at the time of new product purchase.

Emerging Technologies and New Initiatives

Set Top Boxes: In 2012, the program capitalized on the rapid advancements in set top box efficiency, and the participation of national and state level cable and satellite service companies to focus efforts on the dramatic increase of energy consumption within consumer electronics. The set top box program that New Jersey created remains as a leading example of such programs across the country. In FY2015, the Program increased eligibility requirements for qualifying high efficiency set top boxes to the new ENERGY STAR 4.1 specification. This change reflected recent voluntary agreements by the industry to achieve a minimum ENERGY STAR 3.0 threshold of performance. In FY2016, the Program will evaluate a new whole-home replacement of existing cable boxes with qualifying ENERGY STAR 4.1 models. The Program will continue to identify opportunities for cross-cutting NJCEP program promotion through ENERGY STAR qualified set top box service providers.

High Efficiency Clothes Dryers: Since 2010, the Program has been successful in advancing a consortium of efficiency programs, manufacturers, and the ENERGY STAR Program in the introduction of super-efficient clothes dryer to the North American market and dryers were added to the suite of products carrying the ENERGY STAR label. In FY2016, the Program will provide incentives for qualified dryers meeting the new ENERGY STAR V 1.0 specification released in May 2014

and those meeting the even more efficient 2014 ENERGY STAR Emerging Technology Award criteria.

ENERGY STAR Retail Products Platform: Over the past two years, EPA ENERGY STAR has been working in collaboration with leading efficiency programs and retailers to develop a viable long-term, cost-effective national products program for greater engagement with retailers to accelerate the stocking and sales of certain ENERGY STAR product categories. In FY2016, the Program will evaluate a potential New Jersey pilot of the ENERGY STAR Retail Products Platform. The range of ENERGY STAR products selected for the pilot will support the evaluation of the effectiveness of this program within different product categories. The product categories selected for the pilot include ENERGY STAR certified clothes dryers, air cleaners, freezers, entertainment system sound bars, home theater systems and room air conditioners. Incentives will vary by type of product and/or distribution channel, based on negotiations with manufacturers and/or retailers.

CFL Recycling

Following the voluntary initiation of an on-site CFL recycling program by a major NJ retailer in 2008, the Program's FY2016 markdown solicitation's proposal scoring system will continue to provide a strong preference for proposals for mark downs that include a recycling option. The Program will also work with the other NJ retailers to offer CFL recycling.

Special Events

The Program will participate in several NJ based Earth Day events.

National Meetings

Program staff will attend the National ENERGY STAR Lighting, Appliance and Consumer Electronics Partners Meetings to showcase New Jersey's innovative work on efficient products, to learn new best practices to incorporate with the program, and to meet with national manufacturers and retailers to discuss New Jersey promotions.

Quality Control Provisions

For promotions featuring customer rebates, documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all rebate program participants. All applications are reviewed as they are processed for verification of the documentation that the equipment meets program requirements.

Each application and its information are entered into a database that allows checking for duplicate applicants through an equipment serial number comparison. On an ongoing basis, 2-5% of all rebate applications are selected for a quality assurance review and/or follow-up telephone customer survey to verify the information on the application and to confirm that the rebate was received. In addition to the above, the Energy Efficient Product Program field representatives visit the participating storefronts to verify that Program products have been received and have been displayed properly according to program requirements. If necessary, they will help unpack the products, and put them on display with the required program materials, as well as train sales staff about Program rebates and the energy savings a customer might expect from purchasing a Program product. Performance reports are provided to the program managers to assist in developing future promotions and selecting the most effective proposals.

Budget

A detailed budget for this program for FY2016 is attached in Appendix B.

Goals and Energy Savings

The goals for FY2016 for the Energy Efficient Products Program are listed below. Estimated program savings are subject to change based on the measure mix and changes to the NJ savings protocols over the course of the year.

- Achieve approximately 14,150 in Annual DTh savings and 156,150 in Lifetime DTh savings (or the conversion to accepted equivalents such as MMBtu);
- Achieve approximately 158,650 in Annual MWh and 1,869,800 in Lifetime MWh savings;
- Achieve sales and distribution in excess of 4.4 million efficient lighting products in NJ in FY2016;
- Provide approximately 34,300 incentives for clothes washers, refrigerators, and clothes dryers;
- Remove approximately 10,250 old, inefficient refrigerators and freezers from NJ homes;
- Provide approximately 250 advanced power strips in NJ in FY2016;
- Provide approximately 50,000 rebates for high efficiency set top boxes; and
- Provide efficient products distribution and customer outreach through creative partners.

New Jersey's Clean Energy Program™

FY2016 Existing Homes Program

NJ Home Performance with ENERGY STAR®

Program Description

Home Performance with ENERGY STAR (HPwES) is a national home performance improvement program developed by the Environmental Protection Agency (EPA) and the Department of Energy (DOE). HPwES helps qualified contractors offer comprehensive energy efficiency improvement packages for existing homes based on sound building science principles that produce predictable savings and improve energy efficiency, comfort, safety, and durability.

The New Jersey Home Performance with ENERGY STAR program (Program) was built on two parallel delivery strategies. Over the past several years, the Program has provided information, education, and incentives directly to participants to encourage them to undertake whole-house energy efficiency improvements to their homes. The Program also has provided contractors with the training and the Building Performance Institute (BPI) GoldStar Contractor Program qualifications necessary to consistently achieve comprehensive energy savings in existing homes. The contractor recruitment and training element of the Program has successfully trained and approved over 200 BPI accredited / GoldStar qualified contractors.

The Program supports the development of a qualified and robust contractor network, contributing to local job growth and boosting local economies. The Program encourages contractors (primarily insulation contractors, HVAC contractors, and remodelers) to pursue an integrated, whole house approach to energy efficiency and home improvement. Participating contractors must meet BPI GoldStar Contractor Program requirements, including a requirement that at least one staff member hold BPI certification and that at least two different certification types are held. BPI certifications are based on national standards that ensure that home assessors have the skills required to identify and realize savings opportunities and that best practices are met. In FY2016, the Program will set the foundation for future success by taking steps to reduce incentive costs while increasing overall program savings and participation. During FY2016, the Program will serve homes and multi-family units in the Program through a combination of:

- Offering robust, performance-based incentives to both participants and contractors, while adjusting incentive levels to ensure financial sustainability;

- Offering zero percent interest loans to qualified participants through participating NJ utilities or directly through the Program;
- Adjusting program tiers and requirements for both single-family and multifamily projects to increase participation and strengthen the focus on building shell measures, such as insulation and duct sealing;
- Continuing to offer contractor training on program and technical topics, and partial reimbursement for annual BPI GoldStar Contractor Program fees;
- Continuing to conduct Quality Assurance inspections and ensure that participants receive contracted energy efficiency services based on BPI national standards; and
- Continuing to effectively partner with NJ's investor owned utilities to leverage additional resources and offers.

Current Target Market / Eligibility

The Program is designed to serve existing New Jersey households across all income categories, but particularly the broad market not eligible for low-income program services. The Program targets customers served by an investor-owned utility that reside in existing one, two, three and four-family homes; either attached or detached, and multi-family buildings which are three stories or less. If available in FY2016 through the use of State Energy Program (SEP) funding, residential customers using oil, propane and non-investor owned (municipal) electric are eligible for participation until that funding is expended. Should any applications be processed under SEP, the fee for processing these applications will be charged to NJCEP. The Program will also continue to coordinate with the programs funded by investor-owned utilities.

Program Implementation

To initiate participation in the Program, a customer requests an assessment performed by a NJ HPwES participating and Building Performance Institute (BPI) GoldStar contractor. Contractors also market the program directly to customers, and encourage customers replacing heating and air conditioning equipment to undertake comprehensive efficiency improvements at the same time. In addition to checking for health and safety issues, the assessment includes recommendations for appropriate energy efficiency improvements relevant to the home. Contractors are trained to promote the installation of comprehensive energy efficiency improvement measures, which may be eligible for Program incentives and financing incentives based upon the total energy savings (TES) estimated for the recommended work scope.

Participating contractors must employ properly trained staff, and must allow inspection of work performed by the Program to ensure that all measures are properly installed and safety precautions are observed. Only contractor firms which are GoldStar Qualified by BPI may participate in the program. The BPI GoldStar requirements regarding contracting company qualifications and individual employee certifications provide assurance to both participants and the Program as to basic worker competence, that all cost-effective savings opportunities have been identified, and that any health and safety considerations are also included in the report of recommended actions. Participating contractors must guarantee all work, and abide by BPI standards governing health and safety, work quality, insurance coverage, customer service, and complaint resolution.

Multi-Family Buildings

Small multi-family (MF) building developments may participate in HPwES. The program defines eligibility as buildings that:

- Are no more than three stories high;
- Have single ownership;
- Can provide total building energy usage accessible through individual metering of the units within the multifamily structure, or a master meter at the building (as opposed to sites with multiple buildings heated by a central heating plant); and
- Are made up of five or more units in a single building, or multiple buildings (each with five or more units), within a single geographic boundary and with a single property management structure.

Honeywell coordinates with TRC, the Commercial and Industrial (C&I) Market Manager, so that multi-family facilities that do not meet these criteria fall into the C&I Program for Energy Efficient measures.

The total incentive amount for a multi-family project must not exceed 50% of the total costs of approved measures. If the total multi-family project incentive based on the above structure yields an amount greater than 50% of the costs of approved measures, the incentive amount offered will be lowered to the 50% maximum. The program work scopes **must** consider a whole building approach to be approved. Individual units within a multi-family structure or development are not eligible for the program independently of the entire building or development; however, they may take advantage of other NJCEP offerings, such as the *WARM* and *COOL*Advantage programs.

Townhouses, as defined by the New Jersey Residential Code[15], are considered single family homes, and as such the same incentive levels given to single family homes will apply to townhouses.

The Program works with the contractor of a multi-family project to ensure proper project assessment and approval process. Multi-family buildings are addressed in accordance with the BPI Multi-family Building Standards. The Program only approves such projects for contractors that have at least one staff member holding BPI Multi-family certification.

Program Incentives

Two types of incentives are offered by the program to address both the demand and supply side of the program participation equation:

- Customer incentives and loans to encourage customer participation and promote energy savings; and
- Incentives to encourage contractor participation and deliver projects that provide energy savings and comfort, as well as healthy and safe homes.

Further, incentives are structured to promote comprehensive savings with the highest incentive offered for the greatest energy savings, as well as to accommodate those who participate in other NJ energy efficiency programs. For example, it is possible for a customer to install properly sized HVAC equipment and participate in *WARM* and/or *COOL*Advantage and utility equipment rebates, and then at a later date continue along the journey of greater home efficiency by installing Tier 2 thermal envelope measures (such as air sealing and insulation) through the HPwES Program, or vice versa. Since participants are free to pick and choose among the comprehensive work scope recommendations provided by the participating program contractor, the incentive structure is intended to reward participants who pursue the highest possible savings, and to reward contractors for promoting a comprehensive set of recommendations.

In FY2016, the basic tiered structure has been maintained, with adjustments to strengthen the focus on building shell measures while enabling a broader range of projects to participate in the program. These changes include:

- The Program will require installation of insulation in at least one open, accessible area of the thermal boundary of the home for every HPwES project.

[15] NJ IRC R202: Townhouse: A single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from foundation to roof and with open space on at least two sides

- The Program will make it easier for contractors to seal ducts and report the associated energy savings by allowing duct leakage testing using the pressure pan test, in lieu of the Duct Blaster test.
- Tier 2 will have a minimum requirement of 5% Total Energy Savings (TES), rather than 10%, for both single-family and multi-family buildings. This will enable greater participation by both multi-family projects and single-family projects that include only shell measures (air sealing and insulation). Previously, many customers who upgraded their HVAC equipment through WARM or COOLAdvantage have been unable to qualify for HPwES.
- For multi-family buildings, Tier 3, Level 1 will have a minimum requirement of 15% TES, rather than 20%, and Tier 3, Level 2 will have a minimum requirement of 20% TES, rather than 25%. This will encourage comprehensiveness by making it easier for multifamily projects to achieve higher incentive tiers.
- For single-family homes, Tier 3, Level 1 customer incentives will be reduced from a maximum of $4,000 to $3,000 per project. Tier 3, Level 2 customer incentives will be reduced from a maximum of $5,000 to $4,000 per project. Reducing the Program's investment per project will allow more projects to participate within the available budget.[16]
- For single-family homes, the contractor production incentive will be reduced from $700 to $500 per project.
- For single-family homes, the maximum loan amount for customers completing Tier 3 projects will be increased from $10,000 to $15,000 to encourage more comprehensive projects.

The TES estimates will be determined by use of the Program's software tool, provided by CSG. Regardless of Tier, BPI GoldStar Contractor Program requirements will and must be enforced, including prohibiting air sealing without first addressing relevant health/safety issues such as failing spillage/back draft testing, and requiring mechanical ventilation to ensure adequate indoor air quality to meet ASHRAE and BPI ventilation requirements.

The following tables present the incentive structure for FY2016.

[16] Reducing customer incentives will begin to bring NJ incentive levels more in line with other leading Existing Homes programs, as recommended in the 2015 ERS report entitled, "Review and Benchmarking of the New Jersey Clean Energy Program."

Table 7: NJ HPwES FY2016 Single-Family Incentives and Requirements

INCENTIVE TIER	REQUIREMENTS	CUSTOMER INCENTIVE	CONTRACTOR INCENTIVE
Tier 1	Energy audit only	No incentives	No incentives
Tier 2	Estimated total energy savings from all work must total at least 5% but less than 20%. Must install air sealing. Must install insulation in at least one open, accessible area of the outside thermal boundary of the home. May also install water heater measures from the Eligible Measures List. Heating and A/C equipment is not eligible	Cash rebate of 50% of the costs of the measures used to calculate TES up to $2,000. 0% financing up to $5,000 where a utility financing offer is unavailable.	Upon satisfactory project completion, including meeting program guidelines for quality work and addressing health/safety issues, a $500 production incentive will be paid to the contractor.
Tier 3	**Level 1**. Estimated total energy savings from all work must total at least 20%but less than 25%. Must install air sealing. Must install insulation in at least one open, accessible area of the outside thermal boundary of the home. May include additional measures from the Eligible Measures List.	Cash rebate of 50% of the costs of the measures used to calculate TES up to $3,000. Either 0% financing up to $10,000 or 4.99% financing up to $15,000, where a utility financing offer is unavailable.	Upon satisfactory project completion, including meeting program guidelines for quality work and addressing health/safety issues, a $500 production incentive will be paid to the contractor.
	Level 2. Estimated total energy savings from all work must total at least 25%. Must install air sealing. Must install insulation in at least one open, accessible area of the thermal boundary of the home. May include additional measures from the Eligible Measures List.	Cash rebate of 50% of the costs of the measures used to calculate TES up to $4,000. Either 0% financing up to $10,000 or 4.99% financing up to $15,000, where a utility financing offer is unavailable.	Upon satisfactory project completion, including meeting program guidelines for quality work and addressing health/safety issues, a $500 production incentive will be paid to the contractor.

Table 8: NJ HPwES FY2016 Multi-Family Incentives and Requirements

INCENTIVE TIER	REQUIREMENTS	CUSTOMER INCENTIVE	CONTRACTOR INCENTIVE
Tier 1	Energy audit only	No incentives	No incentives
Tier 2	Estimated total energy savings from all work must total at least 5% but less than 15%. Must install air sealing. Must install insulation in at least one open, accessible area of the outside thermal boundary of the home. May also install water heater measures from the Eligible Measures List Heating and A/C equipment is not eligible.	Cash rebate of 50% of the costs of the measures used to calculate TES up to $500 per unit.	Upon satisfactory project completion, including meeting program guidelines for quality work and addressing health/safety issues, the contractor will be paid a $50 production incentive per unit.
Tier 3	**Level 1**. Estimated total energy savings from all work must total at least 15% but less than 20%. Must install air sealing. Must install insulation in at least one open, accessible area of the thermal boundary of the home. May include additional measures from the Eligible Measures List.	Cash rebate of 50% of the costs of the measures used to calculate TES up to $1,000 per unit.	Upon satisfactory project completion, including meeting program guidelines for quality work and addressing health/safety issues, the contractor will be paid a $50 production incentive per unit.
	Level 2. Estimated total energy savings from all work must total at least 20%. Must install air sealing. Must install insulation in at least one open, accessible area of the thermal boundary of the home. May include additional measures from the Eligible Measures List.	Cash rebate of 50% of the costs of the measures used to calculate TES up to $1,500 per unit.	Upon satisfactory project completion, including meeting program guidelines for quality work and addressing health/safety issues, the contractor will be paid a $50 production incentive per unit.

Tables 7 and 8 NJ HPwES Incentives and Requirements Notes:

1. Customers replacing heating and/or central cooling systems who receive incentives on their new HVAC systems under the NJCEP HPwES Program may not apply for or receive additional incentives from the NJCEP WARM/COOLAdvantage program.
2. Insulation installations must comply with the requirements detailed in the NJ HPwES Eligible Measures document. Insulation is not required in cases where all open, accessible areas of the home are currently at or exceed the IECC 2009 prescriptive R-values.
3. NJ utilities may offer a 0% loan or on-bill repayment plan up to $10,000 or 4.99% financing up to $15,000 for Tier 3 projects and/or $5,000 for Tier 2 projects to underwrite the non-rebated portion of the customer cost for HPwES projects in their service territories. NJCEP will offer a 0% financing up to $10,000 or 4.99% financing up to $15,000 for HPwES work for any participants where a utility loan or on-bill repayment program is not in place or in instances where a utility customer has been denied through the utility program.
4. NJ utilities may fund HPwES incentives for Tier 3 and/or Tier 2 projects in their service territories. NJCEP will continue to provide incentives for any project where a utility incentive program is not in place or does not cover the full incentive amount due as scheduled in the table above.
5. The Market Manager will coordinate with the Program Coordinator and the Office of Clean Energy to process and pay incentives from funds supplied by other sources as they may become available.
6. Appliances, lighting, doors, and windows are not measures eligible for Program incentives.
7. The measures used to calculate TES may also include health & safety measures and qualified accessories, as listed on the NJ HPwES Eligible Measures document, as a component to the installations of Eligible Measures.
8. To accelerate consumer awareness while leveraging private investment through program marketing, the Market Manager has set the co-op marketing percentage at 50% of qualifying advertising with a cap of $75,000 per contractor. Details regarding co-op advertising requirements can be found in the Marketing section of this compliance filing.
9. Projects will continue to have expiration dates. The contractor will need to re-enroll projects to the program following the Auto Proceed process for projects not completed and submitted to the program prior to their expiration date, and will be eligible for the incentive levels available at the time of re-enrollment.
10. The Contractor production incentive will be eliminated if the project fails an initial quality control field inspection. In addition, the contractor will be locked out of the Auto Proceed process if project issues remain unresolved for more than 30-days from the time they are notified of the failed inspection. As soon as the issues are resolved, the contractor will be unlocked from the software. The elimination of the contractor incentive will not be applied to new contractors for their first ten inspections.
11. Incentives are payable only upon satisfactory project completion.
12. A NJ homeowner may apply for a second HPwES project at the same site (home/townhouse) only under the following conditions: 1) The contractor must perform a new audit based on the existing conditions of the home after the first completed HPwES project; and 2) The total incentives from both projects cannot exceed current HPwES incentives caps based on the second project's estimated total energy savings (TES). These rules only apply to a single homeowner for the length of the home ownership. A NJ homeowner may apply for a second HPwES project at a different site (home/townhouse).

Planned Program Implementation Activities for FY2016

The following program implementation activities will be undertaken in FY2016:

- The Program will continue providing customer and contractor incentives for HPwES projects as described above.
- The Program will continue to work with the NJ utilities to offer 0% interest loans or on-bill repayment, and to leverage these and any other applicable utility incentives in FY2016.
- The Program will continue to work with the current lending providers to offer 0% loan options. These loan options for HPwES are offered to any program participant where a utility loan or on-bill repayment program is not available.
- The Program will continue implementation of automated processes that reduce administrative costs and simplify the Program for contractors and participants, including allowing contractors to self-evaluate the energy savings and incentive qualifications and "Auto Proceed" with the Work Scope and claim funding for their projects.
- To support a robust contractor community, the Program will offer contractor reimbursement for New Jersey BPI GoldStar Contractor Program annual fees and support BPI training and sales trainings, as indicated below. The Program will offer New Jersey BPI annual GoldStar Contractor Program reimbursements for all participating GoldStar contractors who have completed at least 10 projects during FY2016. The New Jersey BPI GoldStar Contractor Program fee reimbursement will be 25% of the annual New Jersey BPI fee, up to a maximum of $3,000, and will be processed upon presentation of the contractor's paid invoice showing the full amount of the GoldStar annual fee.
- The Program will support the training of HPwES contractors by providing both sales trainings, to help contractors learn how to best sell HPwES features and benefits to homeowners, and technical trainings, to improve contractors' technical skills and support them in meeting the continuing education requirements for BPI certification. In FY2016, technical trainings and webinars will include best practices for duct sealing and insulation.
- The Program will continue to evaluate new technologies and installation practices, such as the Re-Side Tight approach developed by the NJ Institute of Technology, as they become available. The Program will also explore strategies to more effectively engage with potential partners and stakeholders, including insulation contractors, remodelers, and real estate industry professionals, to increase program awareness and participation.

Quality Control Provisions

The Program will conduct Quality Assurance Inspections of at least 10% of all jobs completed. Typically, there is a 100% inspection rate for the first 10 jobs that each contractor performs, with the percentage dropping for subsequent jobs in inverse proportion to the level of contractor performance. These inspections guard against misuse of Program funds. If a job, or an important aspect of the job, fails, a Quality Assurance Inspection Report will be given to the contractor which details the necessary corrective action that must be taken. Once the corrective work is done, a Quality Assurance Inspection Report must be signed by the contractor and customer and sent to the Program, which may schedule a re-inspection to ensure compliance. Contractors that are not meeting Program standards will be subject to the Contractor Remediation Procedures, which can include denial of access to the Program's software tool, removal from the Auto Proceed process, and ultimately termination from the program. The Market Manager will continue to work with contractors to resolve inspection failures as quickly and reasonably as possible.

The integration of these procedures, along with contractor incentives reductions for failed QA inspections, is expected to lower the overall percentage of projects that must receive an inspection from the Program, recognize and reward high performing contractors, and significantly reduce overall Program administration costs.

Budget

A detailed budget for this program during the FY2016 is attached in Appendix B.

Goals and Energy Savings

The goals for FY2016 for the HPwES Program are listed below. Estimated program savings are subject to change based on the measure mix and changes to the NJ savings protocols over the course of the year.

- Achieve approximately 74,200 in Annual DTh and 1,484,000 in Lifetime DTh savings (or the conversion to accepted equivalents such as MMBtu);
- Achieve approximately 2,860 in Annual MWh and 57,700 in Lifetime MWh savings;
- Achieve approximately 159,490 in Annual MMBtu savings and in 3,189,780 in Lifetime MMBtu savings from all fuel types, including electric, natural gas, oil, and propane; and
- Complete comprehensive energy efficiency improvements in approximately 3,750 single-family projects and 1,250 multi-family units.

New Jersey's Clean Energy Program™

FY2016 Renewable Energy Programs

Program Description

New Jersey's Clean Energy Program (NJCEP) offers market services to New Jersey electric utility customers investing in renewable electricity generation. Through the NJCEP program administrative services performed by the Market Manager on behalf of the Office of Clean Energy, the staff works on a daily basis to reduce and remove market barriers to the development of robust and self-sustaining clean energy markets by providing incentives for eligible systems that offset a portion of the initial capital cost, making on site renewable energy generation more affordable and accessible.

The Market Manager also delivers a wide range of market development support services, including consumer education and outreach, inspections, and the facilitation of registration for renewable energy certificates. The market facilitation activities include 'upstream' market outreach and communications to help lay the foundation for long term market growth, including promoting best practices, building the supply base and technical infrastructure, defining and removing structural obstacles to project development, and promoting effective business networks between site hosts, developers, manufacturers and financiers.

There are two programs in the NJCEP Renewable Energy portfolio for FY2016.

1) SREC Registration Program (SRP):

Provides registration for solar renewable energy certificates (SRECs) for solar projects, including both behind-the-meter and direct grid-supply projects connected to the New Jersey distribution system.

2) Renewable Energy Incentive Program (REIP):

In Fiscal Year 2016, the REIP program will offer incentive funds for biopower projects and renewable electric storage projects. Currently, the customer-sited wind program is on hold.

SREC Registration Program (SRP) – Solar Projects

Overview of New Jersey's Solar Market

The solar market in New Jersey remains robust for both residential and non-residential markets. In calendar year 2014, approximately 247.5 MW of new solar capacity was installed in New Jersey. This is more than 45 MW, or 22.4%, greater than the 202.25 MW installed in calendar year 2013, with a nearly identical number of projects installed (6,522 in 2014 vs. 6,539 in 2013).

The increased capacity for a similar number of projects is primarily due to the completion in 2014 of several large direct grid-supply projects under Subsections (q), (s) and (t) of the Solar Act of 2012, along with a number of large behind-the-meter projects. Meanwhile the high project completion number for the second year in a row attests to the continued vitality of the behind-the-meter market, primarily driven by residential projects under third-party ownership.

During calendar year 2014, the Market Manager received 12,530 SRP registrations – an increase of 67.5% from the 7,481 registrations received during 2013. This sharp spike in registrations is directly attributable to the popularity of third-party owned residential systems as well as the approaching deadline for the expiration of the Federal Investment Tax Credit (FITC) which is due to expire on 12/31/16. In the first quarter of 2015, the Market Manager received 3,473 SRP registrations, compared with 1,742 received in the first quarter of 2014.

Approximately 38 MW of additional capacity was reported as installed in the first quarter of 2015, bringing total installed capacity in New Jersey through March 31, 2015 to approximately 1,470 MW. New Jersey's installed solar capacity is comprised of more than 34,600 projects, with over 91% of the capacity delivered through the SREC Registration Program. These project investments have propelled New Jersey's clean tech growth industry, created several thousand jobs, and enhanced New Jersey's image as a market leader. Among all 50 states, New Jersey is third only to California and Arizona in the amount of solar capacity installed. In addition, through the end of March 2015 the solar project pipeline remains strong with approximately 7,745 new projects totaling more than 395 MW of project capacity that have been accepted by the NJCEP Market Manager.

Program Description

In FY2016, the focus of the SRP will be on managing the growth of New Jersey's solar markets while communicating accurate, objective information with respect to SREC prices.

On July 23, 2012, L. 2012, c. 24 ("Solar Act") was signed into law by Governor Chris Christie. The Solar Act amends certain aspects of the statute governing generation, interconnection, and financing of renewable energy. Among other actions, the Solar Act requires the New Jersey Board of Public Utilities ("Board") to conduct proceedings to establish new standards and to develop new programs to implement the directives.

Certain grid-supply projects must receive Board approval of a designation as "connected to the distribution system" in order to receive Solar Renewable Energy Certificates (SRECs) useful in the NJ Renewable Portfolio Standard. The Act provides the Board discretion in approving solar on certain farmland under subsection s while it required the development of an escrow and application process for other grid-supply projects in EY14, EY15 and EY16 under subsection q and requires the Board to determine that relevant criteria are met for projects proposed in EY17 and beyond under subsection r in order to qualify for SRECs.

The Board established a program to provide SRECs to owners of solar electric power generation facilities certified as being located on a brownfield, historic fill area, or properly closed landfill in consultation with the NJDEP and NJEDA. Grid-supply projects meeting these criteria must apply under subsection t. For projects certified under this subsection, the Board has approved EDC SREC based finance programs to serve as a financial incentive to cover additional costs.

The Market Manager will continue to work closely with Board Staff to administer the processes necessary to register projects in the SREC Registration Program in accordance with directives established by the Board for grid-supply projects. Grid-supply project registrants must work with their EDC and PJM to provide a document to verify that the generating facility is interconnected to the electric distribution system in New Jersey.

In addition the Market Manager will continue to work closely with Board Staff to update and modify SRP registration submittal requirements as necessary to adhere to applicable rule amendments that may occur. Based upon the current

rules, the following items are among the requirements of the SREC Registration process:

- SREC Registrations must be received no later than ten (10) business days after execution of the contract for purchase or installation of the photovoltaic panels to be used for the solar project (N.J.A.C. 14:8-2.4(c)).

- SREC Registrants may remedy a project's lack of compliance with the above requirement by revising the SREC Registration packet and resubmitting it to the Market Manager. However, an addendum can no longer be submitted to revise a non-compliant or incomplete SRP Registration. It may only be done with a revised, executed contract.

- Construction on a solar project may not begin prior to the date of the SRP Acceptance letter. If a revised SRP registration was submitted, then construction of the applicable solar project may not begin prior to the date of the SRP Acceptance letter resulting from the revised registration submittal.

- All solar energy systems eligible to earn SRECs, regardless of size, must report system production based upon readings from a revenue-grade meter (RGM) that meets the American National Standards Institute (ANSI) Standard C12.1-2008.

Please refer to N.J.A.C. 14:8-2.4 for the full rule re-adoption and amendments, including penalties for non-compliance, and to the SRP Guidebook for complete and specific details on processes related to the Market Manager's implementation of these requirements.

FY2016 Program Changes

In response to stakeholder feedback, market conditions, and policy developments, the Market Manager proposes a number of enhancements and changes in the FY2016 Program Plan. These include:

1) Changes will be made to the design and incentive structure of the FY2016 Renewable Electric Storage Program. The changes were initially discussed at a Renewable Electric Storage Working Group meeting on April 13, 2015 following a review and analysis of the FY2015 Solicitation. Based on that discussion, the Market Manager and Board Staff will issue a straw proposal for public comment. Following public comment and further stakeholder discussion, the Market Manager will work with Board Staff to develop a

proposed program design and incentive structure that Staff will present to the Board for review and approval at a regularly scheduled Board meeting.

2) For FY2016, changes will be made to the design and incentive structure of the sustainable biopower program, although it will again be administered by the Market Manager. Informed by the experiences of the two rounds of the FY2015 Sustainable Biopower Incentive Solicitation, Board Staff and the Market Manager will utilize the stakeholder process to obtain input for a straw proposal that will be issued for public comment. Following public comment and further stakeholder discussion, the Market Manager will work with Board Staff to develop a proposed program design and incentive structure that Staff will present to the Board for review and approval at a regularly scheduled Board meeting.

3) The Market Manager has implemented the following changes to the SRP registration process, which are in alignment with the Chapter 8 Rules:

- Streamline the SRP Final As-Built forms and process and reduce the amount of paperwork required.

- Expand on the Final As-Built Technical Worksheet to eliminate previously required back up documentation (PV Watts, Shading Summary Report and PV Commissioning Form).

- Introduced writable forms and auto calculations in the Final As-Built phase to ease the paperwork requirements for the installers. This step will serve as an interim step in the transition to the submittal of new SRP registrations via the web based solar portal.

Although the PV Watts, Shading Summary Report and PV Commissioning Form would no longer be required, the NJCEP still reserves the right to request a complete copy of production estimates, a full shading report or any relevant documentation from the installer at any time.

4) The Market Manager will provide support for the SREC-Based Financing Program which was re-opened in FY2015. This will include the coordination with the Solicitation Manager for NJCEP website postings, notifications to the Renewable Energy Program distribution list and establishment of timelines for submittal of SREC Registration Program registrations for each solicitation round.

5) Continue the roll out of the web based solar portal that was introduced during Q2 of 2015 for submitting SRP Registrations to provide a more streamlined and automated registration submittal and acceptance process. This will allow the Market Manager to manage the robust registration volumes

while providing registrants with better visibility to their project status and improving the experience of program participants.

Target Markets and Eligibility

Eligible solar technology is defined as systems that utilize semi-conductor technologies to produce electricity directly from sunlight. All systems must meet program requirements regarding equipment certification, proper installation practices and compliance with program procedures and processes. Solar PV systems connected to the distribution system in New Jersey can participate in New Jersey's SREC Registration Program.

Photovoltaic electric systems are well suited to any site with proper orientation, roof or land availability, and a minimum of shading obstacles. The technology is well established, and easy to install with almost no ongoing maintenance required. With its established and growing contractor base and innovative policy framework, New Jersey is well-positioned to continue as a national and global leader in the installation of customer-sited solar systems.

The solar market in New Jersey was completely transitioned to a non-rebated, performance-based incentive structure in 2011. The combination of declining panel prices, more efficient installation techniques, federal tax incentives such as the Federal Investment Tax Credit (ITC) and depreciation, and the SREC market provide sufficient incentives to support solar project economics without the need for rebates.

Offerings and Customer Incentives

In FY2016, the SREC Registration Program (SRP) continues to be available for new solar registrations. Solar generating facilities that are interconnected with the electric distribution system in New Jersey and that meet all applicable rule requirements as well as all SREC Registration Program requirements will be eligible to generate NJ SRECs upon successful completion of all said requirements.

SREC stands for Solar Renewable Energy Certificate and is a tradable certificate that represents all the clean energy benefits of electricity generated from a solar electric system. Each time a solar electric system generates 1,000kWh (1MWh) of electricity, an SREC is issued which can then be sold or traded separately from

the power. The revenues from SREC generation can make it easier for individuals and businesses to finance and invest in clean, emission-free solar power.

The New Jersey SREC Registration Program (SRP) provides a means for SRECs to be created and verified. The Generation Attribute Tracking System (GATS) operated by PJM Environmental Information Services is used for tracking and trading of SRECs and Class I and Class II RECs.

REIP Rebate Program – Wind, Biopower and Renewable Electric Storage Projects

Wind Program Description

New Jersey's small wind program has experienced difficulties related to safety, production and consumer protection issues which have led to a hold on the acceptance of new applications. The BPU has conducted stakeholder meetings while Staff and the Market Managers have researched the consumer protections existing in other state wind incentive programs.

At the BPU's request, Cadmus prepared an evaluation titled "Impact Evaluation of Small-Scale Wind, Biopower, and Fuel Cell Programs for the New Jersey Office of Clean Energy" dated March 20, 2015. An overview of the findings of this evaluation were presented at the March 10, 2015 Renewable Energy Committee meeting. Based upon the findings of this study and the previous forensics study prepared for the BPU by NREL, the REIP Wind Program will remain closed and the BPU will not provide any funding during FY2016.

Biopower Program Description

The BPU desires to continue to grow the biopower market in New Jersey. To that end, the REIP will continue to offer financial incentives for sustainable biopower projects. The amount of available funding, the program design and the incentive structure offered in FY2016 will be dependent upon the available incentive funds and market demands. Board Staff and the Market Manager will provide advanced notification to the Biopower Technical Working Group and the appropriate NJCEP email distribution lists to notify interested stakeholders of future program developments and the amount of funding available.

Following the completion of Round 2 of the FY2015 solicitation, Board Staff and the Market Manager will convene the Biopower Technical Working Group to review

the two FY2015 solicitation rounds and discuss possible changes in program design and incentive structure for FY2016. Based on that discussion, Board Staff and the Market Manager will issue a straw proposal. Staff will consider public comments submitted in response to the straw proposal, along with further stakeholder discussion, in preparing recommendations to the Board for the FY2016 program's design and incentive structure. Staff's recommendations will then be presented to the Board for review and approval at a regularly scheduled Board agenda meeting.

This program is designed to meet the following goals:

- Focus on sustainable biopower projects, defined consistently with the New Jersey RPS definition of biopower as a New Jersey Class I renewable energy resource, which are "ready to build" and can be completed as expeditiously as possible.
- Establish maximum incentive amounts which will allow the limited amount of funds to be committed to a broader number of projects.
- Prioritize facilities that are defined as "public and critical" with the goal of keeping critical systems functionally operational during power outages.

All biopower projects must submit a Milestone Reporting Form (Milestone Report) as a baseline with their initial application packet and then on a quarterly basis following project approval. Quarterly Milestone Reports must be submitted to the Market Managers within two weeks after the end of the March 31, June 30, September 30 and December 31 quarters.

FY2016 Biopower Program Changes

As previously mentioned, the FY2016 biopower program will draw upon past experiences from the FY2015 solicitation and future recommendations derived through the public stakeholder process. Upon the conclusion of the stakeholder process, Board Staff will present its recommendation on program changes to the Board. For historical reference, the items listed below were included in the FY2015 Biopower solicitation and will be addressed in the stakeholder process.

- The maximum incentive commitment per project under the FY2015 solicitation was $900,000 or 30% of the project's total installed cost after deducting other incentives, whichever is less. The maximum incentive per entity was $1,375,000. An entity is defined as the site host for a project and does not apply to project developers, unless they own the systems.
- To encourage prompt completion, projects that are completed in less than 12 months from the approval date are eligible to receive 110% of their

approved incentive commitment; projects completed in 12 to 18 months from the approval date are eligible for 100% of their approved incentive commitment; and projects requiring a six-month extension beyond the 18-month approval period are eligible for only 90% of their approved incentive commitment.

- Projects that are awarded an incentive commitment equal to the cap established for a given solicitation are eligible for 110% of the cap value if the project is completed in less than 12 months from the approval date.
- The solicitation is open to both net metered projects and grid supply projects on sites where the site host pays the Societal Benefit Charge through their electric or gas bills. Projects involving the installation of equipment that enhances the performance or efficiency of an existing biopower system are also eligible.

Biopower Target Markets and Eligibility

Sustainable biopower has the potential of being a significant renewable resource for New Jersey because of the variety of facilities in the state that produce or process large amounts of organic waste while having a high demand for energy. The Market Manager has taken an active role in identifying those industries with the greatest potential for biopower development and has directed its education and outreach efforts toward them.

Target Market	Potential Technologies
Food processing facilities	Anaerobic digestion or gasification of organic waste
Wastewater treatment plants	Anaerobic digestion of wastewater
Dairy farms	Anaerobic digestion of cow manure
Hospitals and healthcare facilities	Gasification of food and medical waste
Hotels	Anaerobic digestion or gasification of food waste
Colleges and universities	Digestion/gasification/pyrolysis of food and other waste
Military installations	Digestion/gasification/pyrolysis of food and other waste
Breweries and wineries	Anaerobic digestion of fermentation wastes

REIP incentives are contingent upon the applicant meeting all program requirements and compliance with all applicable local, state and federal laws, permit requirements and regulations.

Biopower systems are also eligible for Class 1 RECs.

Biopower Offerings and Customer Incentives

The sustainable biopower incentive program will specify the available biopower incentive and eligibility requirements as previously described in the "Biopower Program Description" section. REIP biomass projects will be inspected at a 100% inspection rate to ensure that the equipment described in the paperwork is actually installed at the site.

Although there is no limit on the size of the system itself, a maximum incentive amount will be established as previously noted. Project installation costs utilized in the determination of the alternate payment cap derived from total installation costs will include all documented capital costs to supply and operate the system. Those cost items shall include feedstock collection, fuel conversion technology, storage, refining, power generation, and monitoring systems. In situations where power generation units or equipment that enhances the performance of power generation units (i.e., siloxane cleaning equipment) are being added to existing biomass-producing systems (i.e., anaerobic digesters), incentive payments will not be made on the value of any existing facilities, but will be applied only to the cost of new equipment.

The incremental costs associated with heat recovery will be eligible for inclusion in the calculation. However, the value of any existing biomass-producing systems (i.e., anaerobic digesters) to which power generation or CHP equipment is being added will not be eligible for inclusion in calculating the total project incentive. Incentive payments will not be made on the value of any existing facilities but will be applied only to the cost of new equipment.

Applicants proposing CHP systems which may operate on a combination of biogas and natural gas will be referred to the CHP incentive program administered by TRC (http://www.njcleanenergy.com/commercial-industrial/programs/combined-heat-power/combined-heat-power), since such hybrid systems are eligible for incentives under that program.

Applicants representing public and critical facilities, as defined by the BPU, may wish to review the offering and requirements for the Energy Resiliency Bank (ERB), established by the BPU and the New Jersey Economic Development

Authority to help finance distributed generation projects at water and wastewater treatment plants, hospitals, schools-and, long term care institutions. Further information on the ERB may be found at: www.njerb.com.

Renewable Electric Storage Program Description

The Office of Clean Energy began developing a new incentive program for renewable electric storage technology during FY2014 that was implemented in FY2015. The Board issued the FY2015 Renewable Electric Storage Solicitation on October 23, 2015 offering a total of $3 million in incentives for renewable electric storage projects that were integrated with a Class 1 renewable energy system. Twenty-two applications were submitted prior to the December 8, 2014 application deadline. They were reviewed for completeness by the Market Manager and then forwarded to the Solicitation Evaluation Committee for scoring on the basis of four criteria categories: financial and economic viability; project readiness; technical feasibility and resilience.

The Committee recommended the approval of 13 applications with incentive commitments totaling $2.908 million to the Board. The Board approved the Committee's recommendations in an Order dated March 18, 2015 and the Market Manager notified the successful applicants of their commitments by mail.

Applicants have 12 months to complete their projects but may request a six-month extension if needed. Applicants requiring an extension will forfeit 10% of their incentive. Renewable electric storage projects will be inspected at a 100% inspection rate to ensure that the equipment described in the paperwork is actually installed at the site. Applicants must also submit quarterly Milestone Reporting Forms to track the progress of the project and, upon completion, submit quarterly performance data to the Market Manager for the first year of operation.

After the conclusion of the FY2015 solicitation, Board Staff and the Market Manager convened a meeting of the Renewable Electric Storage Working Group on April 13, 2015 to review its results and discuss possible changes in program design and incentive structure for FY2016. Based on that discussion, Board Staff and the Market Manager will issue a straw proposal for public comment

Following public comment and further stakeholder discussion on the straw proposal, Board Staff and the Market Manager will develop a proposed program design and incentive structure that Staff will present to the Board for review and approval at a regularly scheduled Board meeting.

Planned Program Implementation Activities for FY2016

The Renewable Energy Programs will have the following areas of focus in FY2016:

1) Sustain the growth of New Jersey's solar markets, while communicating accurate and objective information on market development activity and NJ SREC prices.
2) Manage internal resources to redirect efforts toward market development activities that are complimentary to NJCEP objectives and Energy Master Plan goals. Focus market development efforts on biopower and renewable electric storage projects.
3) Continue to administer carryover biopower rebate projects approved under the previous REIP biopower program.
4) Continue working with the appropriate stakeholder working groups on the REIP Biopower program and the REIP Renewable Electric Storage Program.

In FY2016 the Market Manager will administer the programs as summarized below:

New SREC Registrations and Final As-Built Paperwork for all SRP Projects

The rules governing the submittal of new SREC Program Registrations and Final As-Built paperwork may be referenced at N.J.A.C. 14:8-2.4. The SRP guidelines will continue to conform to these rules and will be modified as required to reflect any changes to the rules as they become effective. These guidelines are contained within the SRP registration forms and checklists posted on the NJCEP website and within the SRP Guidebook which is also posted on the NJCEP website.

N.J.S.A. 45:5A-2(d) states that solar PV systems installations are by definition electrical work and requires any person engaged in installing, erecting, or repairing such equipment to be an electrical contractor under the provisions of the Act. The Market Manager will continue to collect the name of the NJ electrical license holder and NJ license number on the SREC Registration form in order to demonstrate that the contractor has a valid business permit and holds a non-expired license from the New Jersey Board of Electrical Contractors.

Final As-Built Paperwork for all REIP Rebate Projects

Requirements for submitting Final As-Built paperwork may be found on the NJCEP website.

Extension Policy for SRP Projects

To remain consistent with the amendments to the Renewable Portfolio Standard at N.J.A.C. 14:8-2.4, the extension policy for SRP projects will require only the documentation that supports the likely completion of the project. A complete description of the extension policy for SRP projects may be found in the SRP Guidebook, which is available on the NJCEP website.

Other Program Services

In addition to incentives, the Market Manager will continue to offer the following additional services to stimulate interest in renewable energy projects, improve the technical quality and performance associated with installations, improve market transparency, build the NJ renewable community, support the development of new policies which facilitate long term growth, and promote New Jersey and its clean energy efforts to broader national audiences.

1) Provide inbound call center to educate the public on the New Jersey market and programs, and to provide customer support to installers and project owners on project status, and troubleshooting issues.

2) Facilitate industry working groups, including the Renewable Energy Committee meetings, the solar technical, the biopower, and the renewable electric storage working groups. The small wind working group will reconvene if and when the program reopens.

3) Support BPU marketing efforts in providing quick response to support media inquiries, and ad hoc requests for market statistics.

4) Perform outreach efforts to promote all renewable markets, including speaking engagement and presentations.

5) Monitor policy development processes, inform the market of key outstanding questions and decisions (e.g. new RPS levels, net metering, etc.) and translate new policies into program operational procedures as required.

6) Provide timely and accurate market information on past, current, and projected renewable energy project development with respect to the fulfillment of New Jersey RPS obligations: number of projected REC and SREC requirements in

each year, number of new certificates created and traded, and retired over time, SREC trading prices and volumes, and the project pipeline based on SREC registrations and REIP project incentive applications and approvals. Ongoing analysis and regular reporting on market activity and trends will enhance market transparency, and ready access to data will help create an efficient market for Renewable Energy Certificates and should lower the ultimate costs for compliance with the RPS requirements.

7) Provide information to increase awareness of renewable technologies and promote best practices.

Quality Control / Quality Assurance Provisions

All renewable energy systems facilitated through the REIP and SRP programs must be installed in accordance with program equipment requirements, program performance requirements, manufacturer specifications, and provisions of the National Electrical Code (NEC). The Installer is required to have a Home Improvement Contractor (HIC) license and/or an Electrical Contractor License for residential applications.

Quality Control (QC) serves as a check to ensure specific parameters of a renewable energy installation have been achieved. Quality Assurance (QA) defines processes that ensure quality standards using efficient and cost effective mechanisms.

The QA protocol requires greater diligence on the part of the “in-office” processing team to ensure the “Final As-Built” project information submitted as part of the final application paperwork is complete, correct and in compliance with all program requirements. This review process is critical for the success of the QA program, which complements the on-site QC inspection process to ensure program compliance.

The Market Manager staff will perform on-site verifications for approximately 10% of the SREC Registration Program projects. An on-site verification will be performed for all grid-supply projects and all behind the meter projects with a capacity greater than 500 kW. The Market Manager may also conduct on-site verifications upon written request from the OCE or PJM-GATS to verify the cause for high meter reads or system production reading anomalies. The Market Manager will submit written explanation of the findings to the OCE and PJM-GATS. The scope of work for on-site verifications will include the following items:

- Collecting inverter make and model information

- Verifying inverter operation and recording output reading
- Verifying the revenue grade meter and obtaining a reading
- An estimation approach to panel tilt and orientation versus the more precise measurement approach.

The Market Manager staff will continue to randomly select and review 25% of the projects that receive an inspection waiver to perform a more in depth paperwork review. The Market Manger reserves the right to request additional information, including PV watts, shading analysis, photos, etc.

In putting greater reliance on the QA model and more reliance on an honor system in the industry, it should be recognized that a layer of consumer protection may be sacrificed, and that despite best efforts, the chances of incorrect installation data may increase. Negative publicity which may result from the lack of oversight may ultimately damage the reputation of stakeholders in the industry. With increased reliance on contractor self-reporting, the Board granted the Market Manager the authority to implement Contractor Remediation Procedures against contractors who willingly and consistently violate program rules or misrepresent information. The Contractor Remediation Procedures were approved on October 5, 2010 and became effective on November 7, 2010 for all NJ Clean Energy Programs.

Budget

A detailed budget for the FY2016 Honeywell Renewable Energy programs is attached in Appendix B.

Goals and Renewable Generation

The REIP program supports the goals outlined in the New Jersey Energy Master Plan, which defines aspirational goals for renewable energy technologies which are updated periodically.

In FY2016, the NJCEP renewable energy programs support the goals outlined in New Jersey's Renewable Energy Portfolio Standards (N.J.A.C. 14:8-2):

RPS Requirements for Energy Years 2015-17

Energy Year	Solar Electric*	Class I Renewable Energy	Class II Renewable Energy
June 1, 2014-May 31, 2015	2.45%	8.807%	2.5%
June 1, 2015-May 31, 2016	2.75%	9.649%	2.5%
June 1, 2016–May 31, 2017	3.00%	10.485%	2.5%

*The Solar Act signed by Governor Christie on July 23, 2012 replaced the gigawatt-hour goals of the RPS with percentage-based goals.

Appendix A: FY 2016 Residential & Renewable Marketing Plan

New Jersey's Clean Energy Program™
Residential Energy Efficiency and Renewable Energy Marketing Strategy for FY 2016

Submitted by: Honeywell Marketing Team

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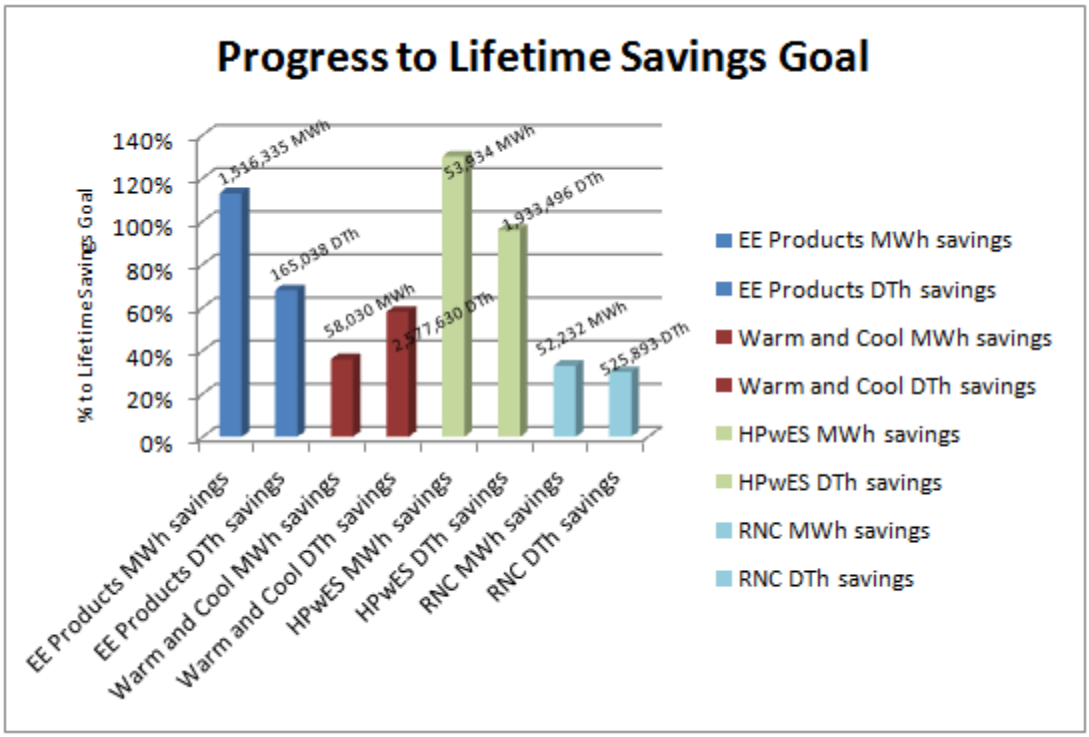
Executive Summary

New Jersey's Clean Energy Program is a statewide program that offers financial incentives, programs and services for New Jersey residents, business owners and local governments to help them save energy, money and the environment.

FY 2015 Highlights

New Jersey's residential energy efficiency programs have continued to drive significant market participation in FY 2015 and have achieved the following results as of March 2015:

- Home Performance with ENERGY STAR® participation resulted in 4,242 completions.
- Clothes washer rebates resulted in 16,645 participants.
- *WARM*Advantage and *COOL*Advantage programs had 12,841 participants.
- Refrigerator/Freezer Recycling Program resulted in approximately 6,772 rebates.
- Refrigerator rebate for the purchase of new fridges resulted in 3,257 participants.
- Manufacturer and retailer initiatives for lighting and consumer electronics added to increased sales and energy efficiency in the New Jersey marketplace with over 3,796,379 bulbs sold.



In FY 2015, New Jersey-based market research was conducted that helped guide the marketing strategy and plan. The research included the development of demographic profiles based on participants in each of the programs. These profiles provide a target market for focusing marketing efforts. A residential survey to over 500 New Jersey residents (primarily homeowners) was also conducted. This survey provided insights into resident awareness and interest in energy efficiency, awareness of the programs, as well as many other key findings detailed in the Appendix of this plan. Contractor interviews with participating contractors in the HVAC and HPwES programs were also performed and provided useful information on how we can better engage with our contractor audience. A summary of key findings from the contractor research is also included in the Appendix of this document.

The research provided the basis for the development of a new marketing plan. Implementation of this new plan began in January 2015. The new plan addresses three key strategies to meet the goals and objectives: building awareness, improving resident engagement, and direct marketing to meet program participation and energy savings goals.

The marketing research also informed the creation of a new marketing campaign theme. This theme is based on feedback in the survey that residents are interested in saving money. The new theme, “add it up”, encourages residents to learn more about how they can save up front with program rebates and on-going through improving the energy efficiency of their home. This campaign theme is being carried out through the awareness, engagement and direct marketing initiatives.

Awareness Advertising

Based on the results of the recent survey, awareness tactics were included into the FY 2015 marketing plan to accompany other tactics that drive engagement and participation into the programs. The goal of awareness marketing is to increase the percentage of homeowners who are aware of the program, know that it is a state-administered program and to educate them on the benefits of saving energy. The following tactics were launched or will be launched before FY 2015 end:

- NJ 101.5 radio spots promoting the products program ran from 1/27/15 – 2/22/15, and spots promoting the whole house and the Flip Your Fridge ENERGY STAR campaign are continuing to run from 3/31/15 – 6/30/15.
- A minor league baseball sponsorship with the Trenton Thunder began on 4/17/15 and will run through 9/7/15. The Clean Energy Program is sponsoring in-game contests at every other home game and the winning participant receives a prize.
- Utility outreach is on-going.

- The umbrella video and movie theater video productions are underway, and movie theater advertising should launch in May and run through the end of FY 2015.

Engagement Marketing

Not only is one of the strategies to increase overall awareness of the programs to NJ residents, but also to engage them in the programs creating a willingness to learn more about energy efficiency and its benefits. The engagement gets them involved in the learning process and brings them a step closer to participating. The following tactics were launched or will be launched:

- A cross-marketing message is being added to all rebate checks promoting all programs and encouraging participants to sign up for the monthly newsletter.
- The residential team has staffed nine additional events this fiscal year, including six home shows and the NJ Property Owner's Association Exposition. Five additional events have been proposed through fiscal year end, including tabling at Trenton Thunder and Somerset Patriots games, and a broadcast studio event with 101.5 in Asbury Park, NJ.
- Development of an appliance search tool is underway, which will help residents easily identify appliances that qualify for a rebate in the program.
- A social media marketing plan is in development and will include a calendar of messaging as well as plans for promoting the content through paid advertising.
- An email template has been developed to reach out to leads from TechniArt shows. Additionally, the NJ Clean Energy Outreach teams are provided brochures to distribute in any events they participate in.

Direct Marketing

Direct marketing, targeting specific sectors that have a higher propensity to participate in the programs based on research, will be conducted to increase the number of participants in the programs, increase energy savings and driver deeper adoption of energy efficiency among past participants.

- The Honeywell marketing team has taken over management of the email newsletter and put together a list of topics through year end.
- An increased online presence with a new digital marketing campaign launched on 2/23/15 and has delivered over 1.6 million impressions, with over 1,700 clicks to NJCleanEnergy.com. Honeywell is also putting together a proposal for digital advertising to accompany ENERGY STAR's national Flip Your Fridge campaign.
- Both NY Public Radio and Philly Public Radio digital advertising launched on 4/6/15 and are expected to deliver over 380,000 impressions. To date, over 155,000 impressions have been delivered with 274 clicks to our website. Additionally, a

web banner will be placed in a fixed position on Newsworks.org targeted to NJ readers for three weeks prior to the fiscal year's end.

- Sponsored content began running on NJ.com on 4/30/15. The content is promoted through web banners on the site and is featured with news articles. The content is educational in nature and speaks to the benefits of making energy efficiency improvements to a resident's home.
- For contractors, the team has drafted an HVAC contractor letter and is proposing to do a mailing to all contractors in the state. A monthly RNC newsletter is also in development.
- A direct mail campaign targeting past participants is planned. This campaign will encourage a deeper adoption of energy efficiency among an audience that has already shown interest in making improvements. A direct mail campaign targeting new movers, and an additional campaign to past RE participants is also planned.

2016 Goals and Objectives:

The residential and renewable energy programs will strive to meet or exceed energy savings goals this year, strengthening New Jersey's position as a leader in the clean energy market. The marketing strategy will continue to support the following objectives identified in 2015:

- Drive participation
- Increase energy savings
- Educate residents on energy efficiency through marketing and contractors
- Motivate residents to achieve deeper energy savings
- Measure campaign results to inform future campaigns

Umbrella Campaign

Both Honeywell and TRC (Commercial and Industrial Market Manager) will continue to work together on an overarching umbrella campaign to increase awareness and educate residents and businesses on the power of energy efficiency.

As a part of the umbrella campaign, Honeywell will work with the Commercial Market Manager on a video promoting energy efficiency among residents and business in New Jersey. The video will be promoted through the following channels:

- Program website
- You Tube
- Press release
- E-blasts to over 200 residential and C&I associations, along with messaging and a link to the video, for inclusion in their communications to members
- Linked-in Energy Groups
- Utility social media channels
- NJCEP Facebook page
- Partner with Sustainable Jersey to get the message out through their channels

Clean Energy Website Enhancements

- An online rebate application is being built for the launch of FY 2016. This application will enable residents to submit rebates for qualifying energy efficient products online. This feature will provide an easy way for residents to submit an application for a rebate.

Appliance search tool has been developed to enable customers to easily search for qualifying models in the energy efficient products program. The tool is mobile-friendly to enable customers shopping in stores to easily search for qualifying products and may also be used on NJCleanEnergy.com. Residents can select the product type, Manufacturer and Model number to see if the appliance they are considering qualifies for a rebate under the rules of the program as well as the rebate amount. Messaging may be added to point-of-purchase materials linking residents to the tool so they can search while shopping in stores.

FY 2016 Residential Marketing Strategies for Sectors

Honeywell will continue with the three-pronged approach identified in 2015 to achieve the objectives and goals for NJ's Clean Energy Program. These strategies include:

1. **Awareness Marketing:** Awareness marketing enables us to reach all New Jersey residents with our message. It will help us educate residents in New Jersey on the benefits of energy efficiency and help to create awareness that

the Clean Energy Programs provide information and monetary support for making energy efficiency improvements.

Sectors: All sectors

2. **Engagement Marketing:** Engagement Marketing is another way to reach all New Jersey residents and goes a step beyond awareness marketing, which is passive from a residents' perspective. By using engagement tactics, we are able to begin a conversation about energy efficiency with the residents of New Jersey. They begin to interact with us, learn more about energy efficiency, and get another step closer to taking action.

   Sectors: All sectors

3. **Drive Program Participation through Direct Marketing:** Direct marketing will be used to drive program participation, increase energy savings and drive deeper adoption of energy efficiency tactics. Direct marketing targets those residents most likely to participate identified through New Jersey research.

   Sectors: New movers, past participants in the programs, homeowners, multi-family dwellers and contractors

2016 Marketing House
The following Marketing House graphic was created to illustrate the three marketing strategies and associated tactics that will be utilized to market the residential programs. Under each strategy the targeted sector is identified. Following the house, a high-level description of tactics that will be executed for each strategy are listed.

Awareness Campaign Tactics

Residential research conducted in 2014 indicates that 46.3% of residents surveyed have heard of the Clean Energy Program; 41% of those that have heard of the program knew that the State administers the program. Twenty-eight percent of homeowners indicated that they had participated in an energy efficiency program. **Based on these results,** awareness tactics will again be included in the FY 2016 marketing plan to accompany

other tactics that will drive engagement and participation into the programs. The goal of awareness marketing is to increase the percentage of homeowners who are aware of the program, know that it is a state-administered program and to educate them on the benefits of saving energy.

Measurement: A follow up survey of residents is recommended in November 2016 to determine if awareness has grown from the benchmark of 46.3%. The success of awareness advertising tactics will also continue to be measured by including the tactics as options for participants to select how they heard about the programs on rebate applications and through call center interactions. Vanity URLs may also be used in tracking.

1. Minor League Baseball Sponsorship

Minor League baseball is an exciting way to generate more program awareness among New Jersey residents. For FY 2015, we contracted with the Trenton Thunder (a New York Yankees affiliate) to have an in-game promotion at every other home game through their 2015 season, which runs through the end of September. The promotion includes displaying the New Jersey Clean Energy Program logo on the left field graphics screen and overlaid on the bottom of the video screen, and the program name and tag line are mentioned at the beginning and end of the contests. The contest involves refrigerators that are in a race on the screen and contest participants vote on an appliance to win the race. Winners are given a prize. The in-game promotion will be held at a total of 36 games, and included is the option to have a BPU staff member throw the first pitch at a game. The sponsorship ends in September 2015, and depending on the results, may be recommended for the following season.

2. Radio

A thorough analysis was conducted to review the demographics of radio stations across the state, and the findings indicated that 101.5 has the widest reach and most closely matches the demographics we are looking to target.
Based on the analysis, the team recommends continuing a media buy on 101.5 FM. The team will also look into WFAN as an additional option to see if listener demographics align with our target audience.

3. Utility and Association Outreach:

Relevant and targeted program messaging will continue to be provided to New Jersey's investor-owned gas and electric utility companies, e.g. PSE&G, JCP&L, Rockland Electric, Atlantic City Electric, Elizabethtown Gas, New Jersey Natural Gas, South Jersey and to state associations, e.g. NJ League of Municipalities and the NJ Conference of Mayors, for incorporation into their newsletters, websites, and social media platforms.

Additionally, we will encourage the utilities to promote the programs at events they participate in throughout the state.

Utility Coordination will include the following:

- Providing messaging to the utilities about the programs to include in their e-newsletters
- Ensuring that the utilities link to the clean energy programs from their websites
- Providing content for the utilities to include on their social media pages (e.g. Facebook, Twitter, etc.)
- Promote the clean energy programs at events they participate in

4. In an effort to target the multi-family market in the short term, the Honeywell Market Manager team will continue to work with the Property Owners Association of NJ as opportunities arise, utilizing the one page fact sheet developed with the commercial market manager. In store signage and collateral

Many residents indicate they learn about the programs while shopping at retail partner stores. The marketing team will continue to maintain a strong presence of signage in stores. Signage will inform shoppers about the rebates and also point them to new tools like the Appliance Search Tool and the online rebate application.

Encourage Program Engagement for All NJ Residents

2. Encourage Program Engagement
(Sectors: All NJ residents)

- **Homeowners**
- **Past Participants**
- **New Movers**
- **Multi-family dwellers**
- **Renters**

Not only is one of the strategies to increase overall awareness of the programs to NJ residents, but we also want to engage them in the programs creating a willingness to learn more about energy efficiency and its benefits. The engagement gets them involved in the learning process and whether it be through social media or speaking with a program representative at an event, they are taking an extra step and displaying they are eager to become more educated about clean energy.

1. Social Media Marketing

A social media marketing plan will be developed to include a calendar of messaging. Messaging will include energy efficiency tips, details about the program, as well as New

Jersey-relevant information to attract a wider audience. A media buy may also be included to promote the Facebook and Twitter content and attract more followers and "likes". As video content is developed, the team will also explore media buys with YouTube to promote video content.

2. Rebate check messaging

In order to help drive a deeper adoption of energy efficiency among recent participants, a rebate check message will be added to all rebate checks, along with a vanity URL leading participants to sign up for the e-newsletter.

3. Home shows/Events

Events provide an excellent opportunity to engage with New Jersey residents, builders, and government and to provide them with information about the benefits of energy efficiency and the programs offered through the state. Following each event an evaluation will be conducted to provide detail regarding overall booth traffic and engagement with potential participants. In FY 2015, the team had a presence at six home shows, and would propose to continue having a presence at home shows. The team is also exploring other types of events where we may be able to interact with a broader audience, and will continue this strategy into FY 2016.

Original planned events (fixed budget):

- AEA Utility Management Conference
- Atlantic Builders Convention
- New Jersey Conference of Mayors
- New Jersey Association of Counties
- Association of NJ Environmental Commissions (ANJEC) Congress
- Governor's Conference on Housing and Development
- New Jersey League of Municipalities

Additional events (variable budget):

- ACI Regional Sponsorship
- Additional home shows
- Other events as opportunities arise

4. Community Outreach

The New Jersey Clean Energy Outreach Team is NJCEP's outreach group which promotes and sells energy efficient lighting products. The team participates in numerous

events throughout the year not only educating the public about energy efficient lighting, but also raising awareness about New Jersey's Clean Energy Program and the additional residential energy efficiency programs we offer. The marketing team has and will continue to provide the teams with program collateral to distribute during their outreach efforts and with lighting kits they sell to residents. Additionally, we will coordinate the team's participation in events where we think they will benefit in terms of outreach and selling their lighting kits, e.g. home shows, the NJ Flower and Garden Show., etc. Marketing will continue to help oversee the partners' creative collateral.

In addition to the New Jersey Clean Energy Outreach Team, the marketing team will also look for opportunities to engage with the community, such as coordinating with Sustainable Jersey and other organizations.

5. Email

Email addresses will be captured wherever possible. Marketing will use the emails captured at events for follow up communication, which will include a link to the NJCEP newsletter sign-up link.

An email template has been developed to be used for leads generated through lighting partners and other venues. The email will enable the program team to easily follow up on the leads and to provide more information about the program of interest. Leads provided to the Refrigerator/Freezer Recycling Program will be contacted by the JACO call center, who will also make contacts aware of the Refrigerator rebate program. Specific email messaging will also be drafted should residents specify interest in our other residential energy efficiency programs while attending events staffed by the creative lighting partners or the Market Manager team.

Drive Program Participation through Direct Marketing

Direct marketing, targeting specific sectors that have a higher propensity to participate in the programs based on research, will be conducted to increase the number of participants

in the programs, increase energy savings and driver deeper adoption of energy efficiency among past participants.

1. Direct Mail for Homeowners

Research indicates that 33% of residents strongly prefer learning about the programs through direct mail. Direct mail has been shown to drive participation in utility programs at a very competitive cost per lead versus other tactics.

Results from all direct mail campaigns launched in FY 2015 will be analyzed to determine response rates and a cost per participant. If results are favorable, additional direct mail campaigns will be planned and could include on-going direct mail campaigns to new movers. Past participant direct mail campaigns may also be conducted based on the results of FY 2015 campaigns, to encourage deeper program adoption.

2. Digital Advertising

Digital advertising provides a way to cost effectively geo-target specifically to New Jersey homeowners. Honeywell will analyze the results of digital campaigns being conducted in FY 2015, and will recommend digital advertising campaign(s) based on results.

3. NJCEP Newsletter

Honeywell will continue to draft the monthly NJCEP newsletter working in conjunction with TRC to develop relevant, timely topics for consideration. We will collect email addresses at events asking attendees if they would like to sign up for the newsletter. This will help increase the subscribership of the newsletter. A twelve month schedule of topics through December 31, 2015 has been provided.

Driving Program Participation through Contractors/Builders

Goals for Contractors

- Drive more participants through existing contractor base with Contractor Outreach and Education
- Broaden base of contractors
- Increase number of contractors

An analysis of HVAC contractor participation was conducted to analyze the number of rebates contractors submit per employee. Research indicates that:

- 62% submit less than one rebate per employee
- 97% submit less than 10 rebates per employee

In order to drive more participation in the HVAC program through contractors, a contractor mailing will be conducted to all contractors in the state informing them of program updates for the new fiscal year, providing them with detail about the trade ally database, co-op advertising incentives, as well as providing them with a handy pocket guide tool they can keep on hand when in the field servicing their customers. This guide will provide information on eligibility requirements and incentives. Feedback from contractors indicates that it is difficult to remember program qualifications and incentives and a tool like this may help drive higher participation levels among already participating contractors as well as encourage new contractors to participate.

The Market Manager team also works closely with the Eastern Heating and Cooling Council, who provides ongoing training sessions for contractors, both HVAC and Home Performance with ENERGY STAR. We will ask to utilize their newsletter for important announcements and updates for the HVAC contractor base, including the FY 2016 program updates. Additionally, the team will find out about ongoing ACCA Chapter meetings to discuss any technical aspects of the program.

Webinars are also made available to contractors through a library located on the HPwES contractor portal, which contractors can access and watch at any time. As of right now, orientation on-boarding sessions will be hosted for new HPwES contractors and all contractors are continuously reminded of and encouraged to access the webinars located on the portal. The technical team is also available for specific questions asked by the contractors. The recorded webinar trainings located on the contractor portal that may be accessed are as follows:

- Making Use of Zonal Pressure Testing and CAZ Depressurization
- Air Sealing and Insulation Questions and Answers
- Paperwork Refresher and Cooperative Advertising
- Program Update and Overview
- HPwES Guidelines and Requirements Review
- HVAC Sizing Guidelines
- Mandatory Paperwork
- Top 10 Reasons QC Failures
- NJNG On-Bill Repayment Plan (OBRP) Review
- EFS Loan Process Review
- Selling NJ HPwES Webinar

A proposal for the Regional ACI show has been provided to the BPU for consideration. As a part of this proposal, the team is proposing to work with the show to develop relevant content and training for attendees, as well as special sessions to address new changes to the programs. This show is a great opportunity to connect and engage with the contractor audience, and the sponsorship proposed will include many opportunities to do that.

For the Residential New Construction (RNC) Program, a monthly newsletter has been developed and will be a great way to engage this audience each month. In addition to the newsletter, the RNC program team will conduct outreach as follows:

- **Use ENERGY STAR Tools and Resources.** Leverage national recognition through DOE and ENERGY STAR. Program staff will work to encourage and facilitate builder submissions of homes.
- **Increase Program Reach.** Program staff will work to strengthen relationships with developers, raters, and the NJ Housing and Mortgage Finance Agency (which currently requires ENERGY STAR for projects seeking financing) to increase knowledge of, and participation in, the program.

4. Co-op Advertising Education

Co-op advertising is a great way to encourage our participating contractors to market their business along with the NJCEP to residents, creating more awareness of the programs, the benefits of energy efficiency and driving participation.

Out of the three co-op advertising programs for Home Performance with ENERGY STAR, HVAC and New Jersey ENERGY STAR Homes, Home Performance with ENERGY STAR is the most successful having committed to reimbursing over $300,000 of ads to 21 contractors as of April 21, 2015 for FY 2015. HVAC has committed to reimbursing over $30,000 and New Jersey ENERGY STAR Homes approximately $30,000 as of April 21, 2015.

We will continue to offer in-person and/or webinars to train contractors and builders about the co-op process. Ongoing one-on-one phone calls and emails happen with contractors on a regular basis and this constant communication remains important to keep participants engaged in understanding the importance of the messaging and logos the BPU and the Market Manager team would like conveyed in all advertising. As in the past, the marketing team will continue to provide detailed reporting for the co-op programs. The team will also work to increase awareness of the co-op advertising programs with HVAC and RNC in order to increase participation, and use the RNC newsletter and HVAC mailing as an opportunity to remind participating contractors of the co-op program.

Refrigerator/Freezer Recycling Program

The following mix of tactics will be considered in FY 2016.

- Pay-per-click advertising
- Local news site banners
- Local radio sites
- Pandora desktop and mobile 30 second audio and web banner
- Radio advertising
- Print advertising
- Creative utilized will continue to promote the program's convenience as the primary message and include secondary messaging regarding the financial incentive

Renewable Energy

For FY 2016, marketing will support the renewable energy programs by providing key program announcements, maintaining updates to critical brochures, continued maintenance of program detail on the renewable energy web pages including extensive program reporting in addition to event support. Support has been and will continue to be provided to the biopower and energy storage programs. Previously, marketing helped launch online surveys and also helped facilitate the solicitation webinars with the program team. Educational information will be provided regarding the importance of implementing energy efficiency measures prior to proceeding with solar installations.

Marketing Reporting

Complete reporting of all campaigns will be provided at the end of the first extension. The teams will include the creative elements that were used in addition to results data.

Marketing Budget

The following chart includes the proposed FY2016 budget based on the FY 2015 budget. Both variable and fixed budgets are included.

FY 2016 Proposed Budget	
Budget Type	**Budget**
Fixed	$819,984
Variable	$429,050
Total	$1,249,034

This marketing plan will be executed during the first three month of FY16 and during any subsequent extensions following. Media buys will be purchased and executed as defined by contract timeframes and may result in higher fees for limited buys.

Conclusion

It is the marketing team's objective to meet the programs' energy savings goals by providing thorough, creative, targeted and engaging marketing initiatives and messaging. We will consistently track the effectiveness of campaigns and look for ways to enhance messaging and encourage participation in the programs. Recommended tactics for FY 2016 will be based on prior results as well as market research conducted in November 2014.

While it is still early to assess full results from many of the tactics that have been or are in the process of being implemented, we have seen the following results with our digital buys, and this information will guide our digital strategy into FY 2016.

- It is clear that the digital campaigns are driving traffic to the website, but we are seeing better results for some of the channels in terms of time on site and bounce rate. This detail will be used to inform digital buys for FY 2016.
- Initial results for a sponsored content test promoting the Flip Your Fridge campaign shows that it is generating traffic that has lower bounce rates as well as improved time on site. Additional topics will be included on the site and results assessed with the current buy.

In addition, the marketing team has participated in many home show events this year, and FY 2016 home show event recommendations will be based on booth traffic and overall show attendance.

Marketing Appendix

New Jersey-based Market Research Findings
During FY 2015, the Honeywell marketing team conducted New Jersey-based market research to guide future marketing strategy. The research included developing demographic profiles based on participants in each of the programs, a residential survey to over 500 residents (primarily homeowners), and interviews with participating contractors.

The residential participant profiles, developed in August 2014, showed common demographics across all programs. They indicated that participants are homeowners, married, the head of the household is usually male, the average household income is $91K or above and their home value is $350K or more. Areas of participation in the programs closely align with areas of homeownership in New Jersey. Zip codes beginning with 077, 080, 085 and 087 index higher and indicate that those geographic areas are more likely to participate.

Demographic Findings by Program

The chart below includes the demographics that index higher for each program, and represent great potential targets for each program.

Program	Marital Status	Age	HH Gender	Income	Homeownership	Length of Residence
HPwES	Married	25-44	Male	$101k+	Homeowners	1-5 years
Energy Efficient Products	Married	55-74	Male	$91k+	Homeowners	16-45 years
HVAC	Married	65-74	Male	$141k+	Homeowners	21-40 years

A residential survey was conducted by the Honeywell Market Manager team on behalf of the BPU from November 10, 2014 through November 14, 2014.

- Survey objectives:
  - Measure residents' awareness and interest in energy efficiency
  - Measure residents' awareness and interest in New Jersey's Clean Energy Programs
  - Assess likeliness to participate in programs and any barriers
  - Identify reasons residents participate in programs

The following key findings were identified from the residential survey:

- Respondents were almost evenly split about awareness of the New Jersey Clean Energy Program. 46.3% stated that they were aware of NJCEP, 46.7% stated they were not, and 6.1% did not know or did not respond. However, of those that were aware of the program, only 41% understood that NJCEP was administered by the State of New Jersey.

- Seeking energy efficient products may tend to help drive awareness of NJCEP. Of the 46.3% of respondents who were aware of NJCEP, over half (51.6%) had sought information about energy efficient products in the past year.
- Regardless of actual awareness, 60.3% of all respondents would at least consider participating in an NJCEP program. Moreover, those who are already participating are much more willing to consider participating in other NJCEP programs (79.5%) than those who are not (60%) – attesting to the value of the various NJCEP programs.
- When asked to rate the importance of limiting or reducing energy use in the home, 86% stated it was at least somewhat important. More specifically, 44.6% stated that limiting and reducing energy use was very important. Very few (less than 4%) did not think it was important to reduce energy use.
- Although limiting and/or reducing energy use in the home is important, the biggest benefit from doing so seems to be lower utility bills. 44% of participants responded this way, almost three times more than those who indicated "saving energy" (17.3%) was the biggest benefit.
- It is likely not a surprise that the greatest obstacle for homeowners in making energy efficiency improvements is money and upfront costs (52%).
- In terms of providing consumers information about NJCEP and its programs, direct mail is mentioned most often. One-third (33.2%) of respondents indicated that marketing materials and other information about NJCEP should be sent via mail. 18% indicated email was best, 16.7% thought television advertisements were useful, and 13.1% thought the website would be helpful.

Interviews with twenty HVAC and Home Performance contractors were also completed, and provided insight into contractors' awareness and attitude about the programs. Key findings from the interviews include:

- Contractors are very aware of the programs in which they are participating; however, they are not as aware of other programs NJCEP offers.
- HVAC contractors have concerns about keeping up-to-date with program changes.
- Contractors are interested in using program collateral with their customers, but may not know where to find it.

- Contractors that are participating in the NJCEP programs feel that the programs help their business.
- Contractors may need help in understanding and participating in the co-op advertising program.
- Contractors indicate that up-front costs are the biggest hurdle for their customers to make energy-efficient improvements, which is consistent with the response received directly from residents in the FY 2015 New Jersey residential survey.

Appendix B: FY2016 Residential Energy Efficiency and Renewable Programs Budgets

Table 1: FY 2016 Renewable Energy Programs Budget

Program	Total	Administration, IT and Program Development	Sales & Marketing	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections and Other Quality Control	Performance Incentives	Evaluation and Related Research
REIP	$16,864,472.81	$1,376,206.92	$0.00	$0.00	$12,642,709.21	$2,845,556.68	$0.00	$0.00
Marketing	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Sub Total RE Programs	$16,864,472.81	$1,376,206.92	$0.00	$0.00	$12,642,709.21	$2,845,556.68	$0.00	$0.00

Table 2 FY 2016 Residential Efficiency Programs Budget

Program	Total	Administration, IT and Program Development	Sales & Marketing	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections and Other Quality Control
Residential HVAC - Electric & Gas	$13,187,678.81	$1,306,764.00		$755,203.84	$9,792,288.57	$1,333,422.40
Residential New Construction	$18,677,692.95	$1,249,392.00			$16,981,960.00	$446,340.95
Energy Efficient Products	$15,791,045.25	$1,415,053.14			$14,051,035.53	$324,956.58
Home Performance with Energy Star	$37,851,710.80	$1,044,421.08			$34,672,618.47	$2,134,671.25
Marketing	$1,249,033.75		$1,249,033.75			
Sub Total Residential Programs	$86,757,161.56	$5,015,630.22	$1,249,033.75	$755,203.84	$75,497,902.57	$4,239,391.18

Appendix C: FY2016 Energy Savings Table

Efficiency Savings By Program and Category			100% of Budgeted Goal					
			Annual				Lifetime	
			MWh	DTh			MWh	DTh
All Programs	**Measures**		**175,001**	**339,422**			**2,340,826**	**8,507,024**
Energy Efficient Products	*4,527,748*		158,652	14,154			1,869,807	156,156
Residential New Construction	*8,190*		3,995	47,543			247,823	2,931,006
Heating, Ventilation and Air Conditioning	*26,941*		9,467	203,524			165,478	3,935,863
Home Performance with ENERGY STAR	*5,000*		2,886	74,200			57,718	1,484,000
Total FY2016 NJCEP Energy Efficiency:			Annual kWh	Annual Therms		Measure Lives	Lifetime MWh Saved	Lifetime MMBtu Saved
Total FY2016 NJCEP Energy Efficiency **at use**							2,340,826	8,507,024
T&D Loss adjustment factor							1.11	1.00
Net to Gross Ratios							1.00	1.00
Total Adjustments							1.11	1.00
Total FY2016 NJCEP Energy Efficiency **at Gen.**							**2,598,317**	**8,507,024**

Efficiency Savings By Program and Category		Participants	Energy Efficiency Units	Annual			Measure Lifetimes	Lifetime		
				MWh	DTh	MMBtu (All Fuels)		MWh	DTh	MMBtu (All Fuels)
Energy Efficient Products	2016 EE Lighting markdowns (CFL)	1,134,856	2,639,200	73,898	0		5	369,488	0	
	2016 EE Lighting markdowns (Downlight & LED)	1,663,500	1,663,500	63,213	0		20	1,264,260	0	
	Rerigerators Tier 1	2,650	2,650	156	0		12	1,876	0	
	Rerigerators CEE Tier 2	150	150	13	0		12	160	0	
	Clotheswasher Tier 1	16,248	16,248	890	7,799		11	9,794	85,789	
	Clotheswasher Tier 2	1,250	1,250	77	1,125		11	844	12,375	
	Dryers - Estar Tier 1 (Electric)	800	800	149	0		12	1,786	0	
	Dryers - Estar Tier 1 (Gas)	200	200	2	180		12	22	2,160	
	Dryers - ESTAR ETA Tier 2 (Electric)	100	100	39	0		12	466	0	
	Creative (Lighting)	120,000	120,000	4,560	0		20	91,200	0	
	Co-Op Advertising/Product Incentive Offerings	0	0	0	0		0	0	0	
	Refrigerator/Freezer Early Retirement Program (JACO)	10,250	10,250	9,738	0		8	77,900	0	
	Refrigerator/Freezer Early Retirement Program (Cust)	10,250	10,250	0	0		8	0	0	
	Other Upstream Incentives - Clothes Washers Tier 1	8,500	8,500	468	4,080		11	5,143	44,880	
	Other Upstream Incentives - Clothes Washers Tier 2	500	500	31	450		11	336	4,950	
	Other Upstream Incentives - Estar Tier 1 (Electric)	1,000	1,000	183	0		12	2,196	0	
	Other Upstream Incentives - Estar Tier 1 (Gas)	300	300	3	270		12	32	3,240	
	Other Upstream Incentives - ESTAR ETA Tier 2 (Electric)	100	100	39	0		12	468	0	
	Other Upstream Incentives Advanced Power Strips - Tier 1	200	200	21	0		4	82	0	
	Other Upstream Incentives Advanced Power Strips - Tier 2	50	50	17	0		4	69	0	
	Other Upstream Incentives - Tier 1 Refrigerators	2,350	2,350	139	0		12	1,664	0	
	Other Upstream Incentives - CEE Tier 2 Refrigerators	150	150	13	0		12	160	0	
	Energy Efficient Set-Top Box (ENERGY STAR Tier 1&2)	50,000	50,000	2,200	0		4	8,800	0	
	Subtotal	*3,023,404*	*4,527,748*	*155,847*	*13,904*			1,836,746	153,394	
	Contingency Savings			*2,805*	*250*			33,061	2,761	
	Grand Total	**3,023,404**	**4,527,748**	**158,652**	**14,154**	**555,079**		**1,869,807**	**156,156**	**6,531,263**
Residential New Construction				**MWh**	**DTh**			**MWh**	**DTh**	
	Tier 1 (ENERGY Advantage)	2,324	2,324	3,135	30,228		20	62,703	604,554	
	Tier 2 ENERGY STAR v3.0	2,324	2,324	4,301	46,051		20	86,028	921,028	
	Tier 3	7	7	18	224		20	358	4,477	
	MFHR	870	870	942	22,504		20	18,832	450,080	
	2016 Commitments (carried forward)	*5,525*	*5,525*	8,396	99,007			167,921	1,980,139	
	Tier 1 (ENERGY Advantage)	1,200	1,200	1,619	15,608		20	32,377	312,162	
	Tier 2 ENERGY STAR v3.0	1,000	1,000	1,851	19,816		20	37,017	396,311	
	Tier 3	15	15	38	480		20	767	9,594	
	MFHR	450	450	487	11,640		20	9,741	232,800	
	2016 Enrollments/Commitments	*2,665*	*2,665*	3,995	47,543			79,902	950,867	
	Subtotal	*8,190*	*8,190*	12,391	146,550			247,823	2,931,006	
	Contingency Savings			0	0			0	0	
	Grand Total	**8,190**	**8,190**	**12,391**	**146,550**	**188,798**		**247,823**	**2,931,006**	**3,775,959**
Heating, Ventilation and Air Conditioning				**MWh**	**DTh**			**MWh**	**DTh**	
	A/C SEER 18 (with proper sizing)	500	500	286	0		15	4,290	0	
	A/C SEER 17 (with proper sizing)	1,235	1,235	627	0		15	9,411	0	
	A/C SEER 16 (with proper sizing)	8,180	8,180	3,566	0		15	53,497	0	
	Mini-Split SEER 20	415	415	94	0		15	1,413	0	
	ASHP 16 (with proper sizing)	385	385	189	0		15	2,836	0	
	GSHP ENERGY STAR	31	31	134	0		30	4,016	0	
	HP Water Heater	70	70	118	0		10	1,181	0	
	Solar Domestic Hot Water for Electric Applications	2	2	3	0		10	34	0	
	Electric Applications	*10,818*	*10,818*	5,018	0			76,677	0	
	Gas Furnace: 95% AFUE	9,605	9,605	3,708	145,996		20	74,151	2,919,920	
	Gas Furnace: 97% AFUE	1,350	1,350	521	22,815		20	10,422	456,300	
	Gas Furnace/Boiler & .82EF or 90%TE Combo or 0.67 PV	675	675	65	12,015		20	1,303	240,300	
	Boiler: 85% AFUE (Hydronic)	1,160	1,160	0	3,828		20	0	76,560	
	Boiler: 82% AFUE (Steam)	585	585	0	2,048		20	0	40,950	
	Power Vented .67 EF (to support orphan WH issue)	585	585	0	1,521		10	0	15,210	
	Water Heater: 0.82 EF or 90% TE w/sealed combustion	2,160	2,160	0	11,664		10	0	116,640	
	Solar Domestic Hot Water for Gas Applications	3	3	0	39		10	0	390	
	Gas Applications	*16,123*	*16,123*	4,294	199,926			85,875	3,866,270	
	Pilot new measures (boiler controls)	0	0	0	0		9	0	0	
	HVAC Financing Pilot	0	0	0	0		10	0	0	
	Other	*0*	*0*	0	0			0	0	
	Subtotal	*26,941*	*26,941*	*9,312*	*199,926*			162,552	3,866,270	
	Contingency Savings			*155*	*3,599*			2,926	69,593	
	Grand Total	**26,941**	**26,941**	**9,467**	**203,524**	**235,804**		**165,478**	**3,935,863**	**4,500,061**
Home Performance with ENERGY STAR				**MWh**	**DTh**	**MMBtu (All Fuels)**		**MWh**	**DTh**	**MMBtu (All Fuels)**
	Tier 3: Insulation, HVAC, DHW, other eligible measures	3,750	3,750	2,842	55,650	140,790	20	56,843	1,113,000	2,815,805
	Tier 3: Multi-family	1,250	1,250	44	18,550	18,699	20	875	371,000	373,983
	Subtotal	*5,000*	*5,000*	*2,886*	*74,200*	*159,489*		57,718	1,484,000	3,189,788
	Contingency Savings			*0*	*0*	*0*		0	0	0
	Grand Total	**5,000**	**5,000**	**2,886**	**74,200**	**159,489**		**57,718**	**1,484,000**	**3,189,788**
Total Emissions Savings (lbs reduction)				**Annual Lbs Reduction**				**Lifetime Lbs Reduction**		
				Electric	**Gas**			**Electric**	**Gas**	
	CO2 (Carbon Dioxide)			278,762,985	51,296,165			3,558,055,624	995,321,828	
	NOx (Nitric Oxide)			513,511	40,335			6,554,313	782,646	
	SO2 (Sulphur Dioxide)			1,192,079				15,215,369		
	Hg (Mercury			7				83		
Total Program Savings		**Participants**	**Energy Efficiency Units**	**MWh**	**DTh**		*lifetime*	**MWh**	**DTh**	
		3,063,535	**4,567,879**	**183,397**	**438,429**			**2,340,826**	**8,507,024**	