New Jersey's Clean Energy Program™

Honeywell's Residential Energy Efficiency and Renewable Energy Program Plan Filing for 2012

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Honeywell's Residential Energy Efficiency and Renewable Energy Program Plan for 2012

Introduction

This Program Plan provides program descriptions, goals, marketing plans, and budgets for the four residential energy efficiency and two renewable energy programs to be managed and/or supported by Honeywell in 2012:

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 for the year, and program goals. The program designs detailed in the narratives are an outgrowth of months of exploration of various options for enhancing the effectiveness of both individual programs and the portfolio of energy efficiency and renewable energy programs as a whole, while at the same time adapting program services to align as much as possible with the elements put forth in the draft Energy Master Plan.

The 2012 Program Plans presented here represent models which together will:

- Result in energy savings of 1,859,787 MWh and 10,452,960 Dtherms over the lifetime of the measures promoted in 2012.
- Hasten the transition to upstream incentives versus direct to consumer incentives.
- Foster loan programs through interest rate buy-downs to remove barriers to customer participation. Continue to provide services to all customer classes.

- Streamline, automate, and aggregate processes in order to increase effectiveness and reduce program transaction costs.
- Transition program advertising to cooperative advertising incentives for contractors, retailers and program sponsors.
- Continue to place New Jersey as a national leader in forward facing initiatives that support new technologies and market transformation.

Furthermore, the 2012 Program Plans reflect the ongoing work to support the utilities' energy efficiency and economic programs. We also considered and planned for the State Energy Program (SEP) activities the State has enacted in 2011 that will carry into 2012, and have incorporated the costs to administer these activities in the associated Clean Energy Program budgets. Specifically, we have incorporated SEP program administration, tracking, reporting and application processing costs into the budgets for the Residential Gas and Electric HVAC, and Existing Homes programs.

Following the program descriptions are three Appendices. **Appendix A** represents the 2012 residential energy efficiency and renewable energy Marketing Plan. **Appendix B** provides a summary of total revised 2012 program costs, broken down by cost category. **Appendix C** presents the electricity and gas savings targets associated with the Energy Efficiency Program Plans.

New Jersey's Clean Energy Program™

2012 Residential New Construction Program

"New Jersey ENERGY STAR® Homes"

Description

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

The 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 on-site renewable energy generation. The Market Managers will track the implementation of new construction code changes and will propose incentives modifications as appropriate.

In response to builder and market feedback on EPA's transition to ENERGY STAR New Homes Version 3 standard, the 2012 program will offer two new tiers in addition to Climate Choice Homes (Tier 3).

The two new tiers are NJ *ENERGY*Efficient Home (Tier 1) and ENERGY STAR Homes (Tier 2). NJ *ENERGY*Efficient Home supports long term transition to ENERGY STAR Version 3, but for 2012 does not carry the full inspection checklist requirements, therefore those homes will not be ENERGY STAR qualified. Homes that enroll in ENERGY STAR Homes (Tier 2) will have full check list requirements of Version 3 and will be ENERGY STAR qualified. The incentive structure within each tier will be performance based with higher incentives for higher performance using the HERS index as the indicator. Climate Choice Homes (Tier 3) continues in 2012. The ENERGY STAR Multifamily High-Rise Program is no longer an EPA pilot and is fully adopted by EPA for 2012 with a revised baseline and new protocols, which will be adopted by NJCEP.

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

1. The sharp impact of the economic downturn on the housing market that is expected to continue into 2012;
2. Builders do not value the additional administrative procedures and associated costs of ENERGY STAR Version 3 and the upgrade requirements are not linked specifically to energy savings;

3. Conflicting design criteria (i.e. builders who make design and procurement 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:

- Direct incentives to builders of homes that meet program standards.
- A multiple tiered approach that allows participation across builder levels (including builders new to the program), and promotes increased efficiency and quality-assurance with higher incentives. Expanded marketing assistance to builders to promote the energy and environmental benefits of NJ ENERGY STAR Homes participating projects.
- Leveraging of the national marketing campaigns sponsored by ENERGY STAR.
- Technical assistance to inform builders and their subcontractors on details of the program tiers.
- Verification (inspections and testing) and program certification of previously enrolled qualifying homes, and the inspections and certifications provided by the open market for ratings services.

Target Market and Eligibility

The program uses the EPA ENERGY STAR Multifamily New Construction Program Decision Tree (the "Decision Tree") to determine eligibility.[1] Select components of the Decision Tree are described below.

Single family, multi-single ("townhome") and low-rise multi-family buildings (up to 3 stories) are eligible for NJ ENERGY STAR Homes program benefits if the home uses natural gas and/or electricity supplied by a New Jersey public utility and if each unit has

[1]The EPA ENERGY STAR Multifamily New Construction Program Decision Tree is available at: http://www.energystar.gov/ia/partners/bldrs_lenders_raters/downloads/mfhr/MFHR_Flowchart_Version_1.0.pdf

its own gas or electric heating and/or central air conditioning system and its own domestic hot water system.

The Program will also enroll any existing home undergoing substantial ("gut") renovation or remodeling that meets the above criteria, regardless of its location in the state.

However, consistent with the State's policy initiative to support development and redevelopment in Smart Growth areas and not subsidize growth outside of these areas, rebate incentives for new construction, including those offered under this program, are limited to buildings constructed in a State designated "Smart Growth" area (defined as Planning Areas I and II and the Designated Centers using the "Policy Map of the New Jersey State Development and Redevelopment Plan" found at http://www.nj.gov/dca/osg/resources/maps/index.shtml and described in NJAC 14:3-8.2). The only exception to this Smart Growth limitation is for (1) state funded "Affordable Housing" projects which may qualify for rebate incentives regardless of their location and/or (2) "exemptions from cost limits on areas not designated for growth." Such projects must be eligible for an exemption from "designated growth area: limits as provided for in N.J.A.C 14:3-8.8 as these rules now specify or as they may be amended in the future".

In addition, multifamily buildings with at least 6 floors are eligible for ENERGY STAR Multifamily High-Rise program benefits. Program eligibility for buildings between 4-6 stories varies, depending upon certain factors described in the Decision Tree.

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

Offerings and Incentives

Program Technical Requirements

To qualify for the 2012 Program, a home must meet NJ *ENERGY*Efficient Home (Tier 1), ENERGY STAR Homes (Tier 2), Climate Choice Homes (Tier 3) or ENERGY STAR Multifamily High Rise requirements[2].

The technical detail presented for each tier is a summary that represents the majority of the program requirements. The full technical specifications for ENERGY STAR and New Jersey compliance can be requested from the Market Manager. Complete ENERGY STAR program information is found at http://energystar.gov.

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

[2] Multifamily Buildings over six floors may participate in the C&I Smart Start Buildings Program.

Meet all Energy Star v2.0 requirements, including:

- Comply with v2.0 Thermal Bypass Check list
- Duct leakage to outside: ≤ 6 CFM25 per 100ft^2 CFA (no maximum total leakage)
- Up to 25% of Slab edge in CZ 4 & 5 may be un-insulated.

Additional New Jersey requirements:

- HERS index must not exceed 85 (2006 IECC base) or 75 (2009 IECC base)
- Comply with NJ program specific HVAC check list
- Fully duct all HVAC supplies and returns and fully seal all duct system joints and seams with mastic compound (no tapes) as applicable
- Install ENERGY STAR qualified HVAC equipment (or highest available alternative)
- Install ENERGY STAR qualified mechanical ventilation with automatic 24-hour control, as required by ASHRAE 62.2 as applicable
- Install only direct or power vented space heating, water heating and/or fireplace combustion appliances, when present
- ENERGY STAR lighting: 60% of all light sockets including interior and exterior, or EPA Advanced Lighting Package (ALP) for fixtures
- House size capped at ≤ 4000 sq. ft. Over 4000 sq. ft. requires ≤ HERS 65

2. ENERGY STAR Homes v 3 (Tier 2) Requirements[3]

Meet all EPA ENERGY STAR Homes v 3 standards including:

- Meet a site specific (variable) HERS index target
- Comply with all EPA mandated checklists
- Install ENERGY STAR qualified HVAC equipment (or highest available alternative)
- Install ENERGY STAR qualified mechanical ventilation with automatic 24-hour control, as required by ASHRAE 62.2 as applicable
- Install only direct or power vented space heating, water heating and/or fireplace combustion appliances, when present
- Duct leakage to outside: ≤ 4 CFM25 per 100ft2 CFA
- Total Duct Leakage: ≤ 6 CFM25 per 100ft^2 CFA

[3] ENERGY STAR v 3.0 Standards: http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_v3_guidelines

Additional New Jersey requirement:

- Fully duct all HVAC supplies and returns and fully seal all duct system joints and seams with mastic compound (no tapes) as applicable

3. Climate Choice Homes (Tier 3)

   A set of requirements for meeting energy performance at least 50% better than IECC 2009 before the addition of on-site renewable energy generation, based on EPA's original "Climate Choice" guidelines and anticipated to transition to EPA's new "Concept Home" guidelines, when released, as the underlying technical standard.

4. Multifamily High-Rise Program Requirements

Requirements for applicable multifamily buildings will transition from the previous EPA ENERGY STAR Multifamily High Rise (MFHR) Pilot to the new EPA ENERGY STAR Multifamily High Rise (MFHR) Program standards, released August 30, 2011, including:

- 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

Incentives

The program incentives are listed below.

Table 1: 2012 Financial Incentives per Single Family Unit for NJ *ENERGY*Efficient Home (Tier 1) and ENERGY STAR Homes (Tier 2)

Incentives by Tier, Code & Index				
	vs. IECC 2006		vs. IECC 2009	
HERS	**Tier 1** NJ *ENERGY*Efficient Home	**Tier 2** ENERGY STAR	**Tier 1** NJ *ENERGY*Efficient Home	**Tier 2** ENERGY STAR
85	$1,500	$2,500		
80	$1,750	$2,750		
75	$2,000	$3,000	$1,500	$2,500
70	$2,250	$3,250	$1,750	$2,750
65	$2,500	$3,500	$2,000	$3,000
60	$2,750	$3,750	$2,250	$3,250
55	$3,000	$4,000	$2,500	$3,500
50	$3,250	$4,250	$2,750	$3,750

Multi-single units receive 75% and low-rise multi-family units receive 50% of the incentive levels listed above.

Table 2: Financial Incentives for Climate Choice Homes (Tier 3)[4]

Building Type	2012 NJ Climate Choice Homes
Single Family	$10,000 to achieve 50 points, plus $800 per index point below 50 points (maximum incentive is $26,000/unit)
Multiple Single Family ("Townhouse")	$7,000 to achieve 50 points, plus $500 per index point below 50 points (maximum incentive is $17,000/unit)
Multiple-Family Building ("Multifamily")	$4,000 to achieve 50 points, plus $400 per index point below 50 points (maximum incentive is $12,000/unit)

Table 3: Climate Choice Homes Staged Incentive Payment Schedule

Building Type	At Completion of Enrollment (Sign-In)*	At Completion of Pre-Drywall Inspection(s)*	At Final Certification
Single Family	$3,000	$3,000	Balance
Multiple Single Family ("Townhouse")	$2,000	$2,000	Balance
Multiple-Family Building ("Multifamily")	$1,000	$1,000	Balance

* Failure to complete the project, or to meet Tier 3 (NJ Climate Choice Homes) minimum specifications and/or performance goals, will result in repayment to the Program of incentives paid, less any applicable incentives for meeting all lower tier (Tier 1 or 2) qualifying level requirements. In this circumstance, the Market Manager will generate a letter to the appropriate party requesting any monies due.

Table 4: 2012 Financial Incentives for ENERGY STAR Multifamily High-Rise

Multifamily High-Rise	Incentive
Incentive per Qualifying Unit	$1,000

A cooperative marketing offer for participating builders will drive homebuyer demand for qualifying homes. This co-op marketing offer will supplement a

[4] The per point incentives for HERS indices below 50 is for efficiency improvements only, not including renewables.

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.

New program requirements, procedures and/or incentives will take effect after a notification period that begins with written notification to program participants (i.e. builders, developers, etc.). Any completed application received after the notification period will be subject to new program rules.

Planned Program Implementation Activities for 2012

Transition to New Tiers while Supporting Carryover Tiers

Beginning in January, 2012, or upon Board approval of program filing and contract modifications, the program will offer three tiers plus ENERGY STAR Multifamily High-Rise (as described in the "Offerings and Incentives" section above). The program will provide technical assistance and guidance on the standards and requirements of those tiers.

In addition, the program will continue to support the previous standards that are carried over from 2011 until the homes are completed. The ENERGY STAR Homes 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. Therefore both the New Jersey residential new construction codes based on IECC 2006 and IECC 2009 will be used as baselines in 2011. In addition, permit date, date of enrollment and date of completion determine whether a home can be certified under ENERGY STAR Homes version 2.0, 2.5 or 3.0. In 2012, builders may choose to complete carry-over homes under the previous incentive structure or the new structure outlined here, provided all corresponding technical, program and timeline requirements are met. The program will offer technical assistance and guidance to builders to minimize confusion in the market place.

HERS Ratings and Multifamily High-Rise Modeling

For ENERGY STAR Homes, implementation services (project review and verification) will be provided by the open market for HERS rating services and certifications. In addition to the standard home energy rating requirements defined by RESNET,

qualifying raters will comply with NJCEP criteria to ensure quality services within the Program.

The open market will also continue to support ENERGY STAR Multifamily High-Rise Buildings using the ASHRAE 90.1 modeling methodology.

Quality Control Provisions

Market-based delivery of rating services and certifications requires an effective set of standards for quality assurance. While the responsibility for ratings rests with 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 certifications offered.

To maintain a robust rating marketplace, the Market Manager will perform quality control and oversight processes. Quality Assurance activities will continue to be performed by the Program, in proportion to the track records of raters and builders through program inspections.

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 participants 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 2012 is attached in Appendix B.

Only the direct incentive costs for units expected to be built in 2012, as well as the value of direct incentives for homes committed in 2012 but will not be completed until the following year(s), are included for the duration of their enrollment prior to expiration.

Goals and Energy Savings

Goals

Program goals for 2012 are as follows:

- 4,000 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), Climate Choice Homes (Tier 3) or ENERGY STAR Multifamily High Rise standards.
- 3,750 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), Climate Choice Homes (Tier 3), or ENERGY STAR Multifamily High Rise standards.
- Maintain a sufficient number of HERS rating companies to actively conduct rating activities in NJ.

Energy Savings

Energy savings will be calculated consistent with the latest Board approved protocols. Please see Appendix C

New Jersey's Clean Energy Program™

2012 Residential Gas & Electric HVAC Program

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

Description

The New Jersey Residential Gas & Electric HVAC Program promotes the 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 make 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 renovation and remodeling;
- 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 and approaches to "selling" energy efficiency, and consumer education regarding proper installation methodologies and health and safety.

The program employs several key strategies to address these barriers:

- Financial incentives for the purchase of ENERGY STAR-qualified gas heating and energy-efficient water heating equipment;
- Financial incentives for the purchase of high efficiency electric cooling and heating equipment and controls;
- Financial incentives and program support for quality heating equipment installation that optimizes operating efficiency at time of installation;
- Co-operative marketing assistance to trade allies in the direct promotion of high efficiency HVAC equipment;
- Information aimed at consumers to help them make energy saving purchasing decisions;

- Outreach and education for - as well as in collaboration with - HVAC manufacturers, distributors and contractors;
- ENERGY STAR 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 through North American Technical Excellence (NATE) certification testing;

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 of activities 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 and ground-source, (geothermal) heat pumps.

*WARM*Advantage promotes energy efficient natural gas-fired furnaces, boilers and water heaters for use in residential buildings.

NJ Residential Gas & Electric HVAC program will also, contingent upon availability of funds, continue to support the State's ARRA and/or SEP Programs targeting non-IOU electric, oil and propane customers.

In 2012, the solar domestic water heating (SDHW) pilot initiative will be expanded to include both residential electric and gas water heating customers.

Incentives are available for the installation of qualified HVAC equipment in existing residential buildings (retrofit). There will continue to be a special outreach to builders who have participated in the program in the past in order to further facilitate their participation in the ENERGY STAR homes new construction program.

Offerings and Incentives

*COOL*Advantage

Direct to customer incentives will continue to be available at the 2011 qualifying level (SEER ≥ 16, and EER ≥ 13, & correct sizing). Equipment incentives will be paid directly

to homeowners, or with written consent, assignable to contractors as summarized in Table 1 below.

Table 1: *COOL*Advantage Central A/C and Heat Pump Customer Incentives[5,6]

Eligible Equipment Requirements	Full Incentive Amount	Confirmation Documentation
For Central A/C: SEER ≥ 16 EER ≥ 13 **For Air-source Heat Pumps:** C A/C criteria & HSPF ≥ 8.5 **For Ground-source (Geothermal) Heat Pumps:** ENERGY STAR Qualification	$500	• Compressor/ coil combination ratings[7] • Proper sizing and selection

*WARM*Advantage

The *WARM*Advantage program promotes gas heating equipment that meets the ENERGY STAR efficiency standard (as of February 1, 2012, minimum ENERGY STAR furnace standards are planned to become 95% AFUE and 2% furnace fan efficiency). The program will extend the notification period for this new efficiency standard, to allow previously eligible 92% AFUE equipment to make its way through the distribution chain prior to implementation of the new criteria. Direct to consumer incentives for efficient gas water heaters will be limited to equipment with an Energy Factor of at least 0.82 or 90% Thermal Efficiency (this level is intended to include tankless and condensing storage water heating technologies). Table 2, below, describes applicable efficiency levels and corresponding incentives for high efficiency gas equipment.

[5] From AHRI directory, CEE-AHRI directory or equivalent ENERGY STAR listing.
[6] Ductless mini-split (DMS) systems are eligible to participate under the same requirements as central air conditioners or heat pumps.
[7] To be replaced as a matched set.

Table 2: *WARM*Advantage Direct to Customer Incentives

Equipment	Minimum Efficiency	Incentive Levels
Furnace	≥ 95% AFUE, ≥ 2.0% Fan Efficiency, ENERGY STAR[8]	$400
Boiler	≥ 85% hydronic ENERGY STAR or ≥ 82% steam	$300
Water Heater	≥ 0.82 Energy Factor ENERGY STAR or, ≥ 90% Thermal Efficiency w/sealed combustion.	$300
Solar Domestic Hot Water	ENERGY STAR qualified (Solar Rating & Certification Corporation OG-300 listed; and SF ≥ 0.5)	$1,200

For 2012 incentives will be available for residential solar domestic water heating systems with either electric or gas water heater backup. The program will evaluate the program results after July 2012 to review participation and incentive levels. The rebate incentive level of $1,200 per system has been established to offset approximately 20% of the incremental costs associated with this measure installation.

At the customer's request, *WARM*Advantage incentives may be payable to the consumer or the HVAC contractor. Incentive levels may be adjusted in future years for all eligible equipment based upon market assessments as program market barriers are overcome.

*COOL*Advantage and *WARM*Advantage Pilots

In 2012, the Program will begin to pilot offering incentives in partnership with HVAC trade allies to support increased sale and quality installation of efficient HVAC equipment.

*COOL*Advantage will pilot providing support for more attractive financing at the upstream level (e.g. manufacturers, distributors, and contractors) with incentives for efficient cooling equipment formerly eligible for incentives at the 2010 qualifying tiers 1 and 2 (ENERGY STAR qualified).

*WARM*Advantage will pilot offering support at the midstream level (e.g. distributors, contractors and retailers) with incentives for Power-Vented and Heat Pump Water Heaters at the ENERGY STAR level. *WARM*Advantage will also pilot program support for promising retrofit measures, such as boiler reset controls and drain water heat recovery technologies.

[8] Effective 6 months from Program notification to allow for previously eligible 92% AFUE equipment to make its way through the distribution chain

The Program will negotiate with HVAC trade allies to determine the actual incentive amount to be offered. Table 3, below, shows the not-to-exceed values of these pilot and supply-chain incentive amounts.

Table 3: Upstream, Midstream and New Measure Pilot Incentives

Retrofit Measure	Eligibility Criteria	Maximum Incentive
Air Conditioners & Heat Pumps	ENERGY STAR products that are ineligible for Direct to consumer incentives[9]	$350
Power-Vented & Heat Pump Water Heaters		$200
After-market boiler controls	TBD	$300
Drain-water heat recovery	TBD[10]	$500

All new program requirements, procedures and incentives will take effect after written notification to the HVAC industry. Any application for a purchase made after the notification period ends will be subject to new program rules. For applications addressing purchases made before or during the notification period, consumers and HVAC contractors will be enrolled in the existing (i.e. 2011) program.

Planned Program Implementation Activities for 2012

The following program implementation activities will be undertaken in 2012:

- Continue incentives for heating and cooling equipment.
- Continue the solar water heating as a *WARM*Advantage program measure.
- Pilot upstream and midstream incentives through negotiated agreements which leverage program incentives through coordinated partnerships with trade allies (manufacturers and distributors) to improve reach and/or effectiveness of incentives.
- 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 financing programs.
- 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

[9] The program will seek to support upstream/midstream initiatives with ES qualified products that do not conflict with products already receiving direct to consumer rebates.
10 As these are technologies new to the program and not qualified under ENERGY STAR, the pilot eligibility criteria is currently under development.

substantial form of training that is directly related to the promotion of energy efficiency and quality equipment installation.

- Provide a decision tree to help customers decide whether they are better off participating in *WARM*Advantage/*COOL*Advantage or the Home Performance with ENERGY STAR Program.

Quality Control Provisions

Electric HVAC Quality Assurance

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all incentive program participants. All applications are reviewed as they are processed for verification of the documentation of 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 and/or the eligible products list from ENERGY STAR. Each application and its information are entered into a database which checks for duplicate applicants through an equipment serial number comparison.

Gas HVAC Quality Assurance

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 proper documentation. Qualifying equipment efficiency levels are verified with the AHRI directory of gas heating equipment and/or the eligible products list from ENERGY STAR. 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 assurance review and inspection. Assurance 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 2012 is attached in Appendix B

Goals and Energy Savings

Program goals are as follows:

- Process applications for more than 11,000 efficient central air conditioner and heat pump equipment installations statewide.
- Provide more than 19,000 energy efficient gas space heating and/or water heating equipment incentive applications statewide.
- Promote more than 2,250 units of heating and cooling equipment through upstream and midstream promotions.
- Train at least 1,200 HVAC technicians 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.

Energy Savings

Energy savings will be calculated consistent with the latest Board approved protocols. Please see Appendix C

New Jersey's Clean Energy Program™

2012 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. 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 customers with the knowledge and motivation they need to make cost-effective purchases. The program employs several key strategies, 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 community-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;
- Offering early retirement options for old, inefficient equipment that is still in operation;
- 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;
- Targeting rebates or other 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.

New Jersey's Clean Energy Program (NJCEP) 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 of activities and monitoring developments, and review and modification of program designs to integrate changes to the standards and codes.

Target Market and Eligibility

In 2012 the Energy Efficient Products Program will continue to provide some targeted rebates/incentives to consumers and retailer for the purchase/sale of selected energy efficient products. At the same time, the program will continue the transition towards greater upstream initiatives that leverage manufacturer, distributor and retailer incentives and marketing dollars. These initiatives will increase available funds for incentives and decrease 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.

Offerings and Customer Incentives

In 2012 the Energy Efficient Products Program will continue to offer retail price incentives through upstream markdown promotions for qualified lighting products and clothes washers on a year-round basis. In addition, the Program will review options to incorporate refrigerators and advanced power strips into upstream negotiations with retail partners based on market opportunities. These incentives will be supported with a variety of promotional approaches, including leveraging Environmental Protection Agency (EPA) national ENERGY STAR campaigns. We also plan to review existing Green New Jersey Resource Team (GNJRT) initiatives that distribute CFLs and educate New Jersians through community outreach and events. The 2012 budget also includes provisions for continuing the promotion of energy efficient consumer electronics and an "early-retirement" program for refrigerators and freezers. The Program will also look to partner with clothes dryer manufacturers in providing incentives to support the field testing of heat pump clothes dryers.

On-line Energy Audit

During 2012 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

Compact Fluorescent Lamp (CFL) penetration studies completed in 2010 by the DOE indicate a significant remaining potential for energy savings in NJ homes from switching incandescent lamps to CFLs. In 2012 the Program will continue to offer incentives to manufacturers and/or retailers to mark down the retail prices of eligible efficient lighting products. The Program will expand the 2011 introduction of incentives for ENERGY STAR qualified Solid State Lighting (SSL) products for specific lighting applications to include ENERGY STAR qualified replacement LED lamps. Incentives will be applied to

eligible products (up to a mutually negotiated volume) sold by participating New Jersey retailers during promotional periods. Incentives will vary by type of product, based on negotiations with manufacturers and/or retailers. Based on experience with the 2011 initiatives and regional promotions, the 2012 mark down incentives will be in the range of $0.60-$0.75 per standard CFL, $2.00-$3.00 per specialty CFL, and $7.00-$30.00 per energy efficient light fixture, including qualifying SSL fixtures. In 2012, the program will continue to differentiate retail price incentives for the most common, most easily available, regularly lowest price CFLs with retailer and manufacturer partners that offer a clear distinction in the promotion of the NJCEP. Additionally, the program will look to develop a market lift strategy with select retailers in order to accelerate the market adoption of CFLs, SSL and other high efficiency lighting products.

Incentives for ENERGY STAR qualified appliances and equipment

The program will look for additional opportunities to shift away from direct to consumer mail in rebates through partnerships with New Jersey retailers for promotions of higher performance ENERGY STAR clothes washers, and will review new opportunities for introducing refrigerators and advanced power strips to upstream offerings. The program will offer retailers a markdown promotion of $50 for energy and water efficient clothes washers at a minimum modified energy factor (MEF) of 2.2. The program will select participating retailers based on matching price reductions for promotional periods. The program will look for opportunities to offer the same promotional program to retailers on qualified ENERGY STAR refrigerators and advanced power strips. The Program will also look to support heat pump clothes dryers as an Emerging Technology by providing incentives to manufacturers for field testing these products in New Jersey. While the Market Manager pilots these new upstream opportunities, the Program will continue to offer direct to consumer mail in rebates on clothes washers.

Appliance Early Retirement

In 2012 the Program will continue the 2011 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 of up to $107 for the removal and recycling of that equipment.

Creative Initiatives & Consumer Electronics

The goal of the Creative Initiatives are to allow for innovative approaches to reach the estimated 20-40% of customers that haven't responded to the traditional retail price incentive campaigns and to engage them in NJCEP. In 2012 the Program will continue to limit this initiative to provide CFL distribution through community outreach events as well as corporate events aimed at employee distributions. The program will also support the expansion of participating New Jersey cable service providers within the set top box initiative. Incentives are negotiated with partners and will vary depending upon the type of product and the market segment targeted.

Planned Program Implementation Activities for 2012

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 2012.

General Activities

Maintain existing retailer base and recruit new retailers as needed. In 2012, 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. 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 2012 Change The World – Start With ENERGY STAR program will include a continued focus on strengthening diverse lighting promotions throughout the year, including CFL retail price markdowns with select retailers.

The opportunity to use mark down incentives will be awarded on the basis of a proposal's value to the Program, the quality of the products included in the proposal, and other factors. In 2012 continued emphasis will be placed on transitioning retailers to offer onsite CFL recycling options to customers as part of Program participation and awarding incentive levels based on retailers' specific marketing efforts to raise awareness of the Program's other efficiency initiatives beyond lighting. Additionally, new market strategies will be developed to allow for a cost-effective approach to accelerating the market adoption of CFLs and other high efficiency lighting products.

In 2008, the Program augmented the retail mark down promotion by soliciting creative proposals to promote energy efficient lighting at a grass-roots level, from faith-based organizations, non-profits, small businesses and volunteer organizations. Based on the continued successful results from these activities, the Program will make resources available for creative promotions in 2012. The 2012 Green New Jersey Resource Team (GNJRT) initiatives will continue to be focused primarily on community outreach and events support.

Online Store

Most energy efficiency programs in the northeast offer customers the opportunity to purchase energy efficient lighting on-line through internet portals such as www.myenergystar.com. In 2008, the Program selected Energy Federation, Inc. to create an online store as part of a creative initiative and the volume of products sold through the online store expanded significantly in 2010. In 2012 the Program will continue to

increase product and customer outreach through the online store and expand the availability of high quality, energy efficient lighting and other products.

Residential Appliances

Residential Appliance initiatives will continue to focus on transitioning retail partners to an upstream point of sale rebate. This approach strengthens the Program's partnership with retailers in supporting the most efficient products while reducing the market barriers for consumers and leveraging retailer matching rebates. In 2012, the upstream initiative will continue to support select ENERGY STAR clothes washers, as well as identify new opportunities for refrigerators and advanced power strips. The Program will continue to support mail-in rebates for clothes washers to address any limitations to retailer partnership in the upstream initiative. In 2012, the Program also will work with retail partners to support emerging technologies as longer term efficiency opportunities for New Jersey are identified.

Appliance "Early Retirement" Program

In 2012 the Program will continue a 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;
- In-house appliance pickup and direct access to customers to promote other NJCEP referrals through the employment and training of private haulers;
- 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 by adding CFC removal and incineration to the existing NJ DEP recycling path; 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 will capitalize 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 of consumer electronics. The promotion will involve consumer marketing, local community organization and manufacturer partnering and service provider incentives. The Program will further investigate opportunities for cross-cutting NJCEP program promotion through ENERGY STAR qualified set top box service providers.

Heat Pump Clothes Dryers: During 2010 and 2011, the Program was successful in advancing a consortium of efficiency programs, manufacturers, and the EPA on behalf of ENERGY STAR in the introduction of a super-efficient clothes dryer to the North American market, under the banner of the Super-Efficient Dryer Initiative (SEDI). As a result of SEDI, heat pump clothes dryers have been selected for the 2012 ENERGY STAR Emerging Technology Award, which will support manufacturers bringing this

technology to the North American market. Although no new R&D initiatives will be introduced for energy efficient products in 2012, the Program will look to continue its leadership role in SEDI by supporting these manufacturers and providing upstream incentives for field testing heat pump clothes dryers in New Jersey.

CFL Recycling

Following the voluntary initiation of an on-site CFL recycling program by a major NJ retailer in 2008, the Program's 2012 mark-down 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 NJ DEP to strongly encourage other NJ retailers to offer CFL recycling.

National and Regional Initiatives

The recently established Top Ten initiative and the ENERGY STAR Most Efficient program are intended to provide customers with on line access to information about the "best of the best" energy efficient consumer products. The program will continue to monitor and evaluate the end product of these initiatives to determine a recommended level of NJCEP support and involvement.

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. Staff will be represented at the Behavior, Energy and Climate Change conference.

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 2012 is attached in Appendix B.

Goals and Energy Savings

Goals

Program goals are as follows:

- Achieve sales and distribution in excess of 5 million CFLs and 50,000 CFL and SSL fixtures in NJ in 2012;
- Provide at least 30,000 rebates for clothes washers;
- Remove at least 20,000 old, inefficient refrigerators and freezers from NJ residential homes;
- Provide at least 65,000 rebates for high efficiency set top boxes;
- Expand the upstream initiative to incorporate advanced power strips, refrigerators, and/or heat pump clothes dryers;
- Provide CFL distribution and customer outreach through creative partners.

Energy Savings

Energy savings will be calculated consistent with the latest Board approved protocols. Please see Appendix C

New Jersey's Clean Energy Program™

2012 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 customers to encourage them to undertake significant energy efficiency improvements to their homes. The Program also has provided contractors with the training and accreditation necessary to consistently achieve comprehensive energy savings in existing homes. The contractor recruitment and training element of the Program was designed to ensure an adequate supply of qualified contractors to meet the demand for program services created by the customer marketing and public education elements.

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 Building Performance Institute (BPI) accreditation 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 assessors have the skills required to identify and realize savings opportunities and that best practices are met.

The Program has significantly ramped up activities since its inception in 2008, when it served less than 200 homes. The Program has supported the development of a qualified and robust contractor network, contributing to local job growth and boosting local economies. In 2012, the Program will serve over 3,000 homes in the HPwES Program through a combination of:

- Offering incentives to both customers and contractors;
- Streamlining and implementing automation of processes in order to reduce Program support costs, and to simplify the Program for contractors and customers, including allowing contractors to self-evaluate the energy savings and incentive qualifications and "Auto Proceed" with the Work Scope.

- Providing support to contractors for part of BPI training costs and sales training.
- Providing partial reimbursement for annual BPI accreditation fees to encourage contractors to participate in the program.
- Continuing to offer contractor training on the Program software and procedures.
- Applying Contractor Remediation Procedures as needed to manage contractors' performance to ensure customers receive contracted energy efficiency services based on BPI national standards;
- Reducing the percent of homes that require Quality Assurance inspections; 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 existing one, two, three and four-family homes; either attached or detached, and served by an investor-owned utility. Through the use of SEP funding, if available in 2012, the Program will also be available to NJ residential oil, propane and non-investor owned electric customers, until that funding is expended. The Program will also continue to coordinate with the programs funded by investor-owned utilities.

Also, the EPA expanded the definition of buildings eligible to participate in HPwES programs nationally to include small multi-family buildings. In NJ, the target market for the multi-family component of the HPwES program is multi-family buildings which are three stories or less. NJ has many large developments consisting of low-rise multi-family buildings and some Program contractors have demonstrated the skills and capacity to serve this market.

Program Implementation

To initiate participation in the Program, a customer requests an assessment performed by a NJ HPwES registered, and Building Performance Institute (BPI) accredited and certified, contractor. In addition to checking for health and safety issues, the assessment includes recommendations for appropriate energy efficiency improvements relevant to the home. Assessors are trained to promote the installation of comprehensive energy efficiency improvement measures, which may be eligible for Program rebates 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 accredited by BPI, may participate in the program. These company accreditation and individual employee certification requirements provide assurance to both customers 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.

Program Incentives

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

- Incentives to encourage customer participation and promote energy savings
- Incentives to encourage contractor participation and deliver projects that provide energy savings, comfort, plus 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 customers who participate in other NJ energy efficiency programs. For example, it is possible for a customer to participate in *WARMA*dvantage and receive a rebate for installing a high efficiency furnace from that program. Such a customer then can enroll in HPwES for additional efficiency savings through thermal envelope work, for example. Since customers 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 customers who pursue the highest possible savings, and to reward contractors for promoting a comprehensive set of recommendations.

The basic tiered structure has been maintained as below.

- Tier 1: Energy audit only and no incentives
- Tier 2: at least 10% but less than 20% Total Energy Savings (TES)
- Tier 3, Level 1: at least 20% but less than 25% Total Energy Savings (TES)
- Tier 3, Level 2: at least 25% Total Energy Savings (TES)

The TES estimates will be determined by use of the Real Home Analyzer software tool. Regardless of Tier, BPI Accreditation 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 modifications to the existing incentive structure are intended to promote increased program participation. The specifics of the modifications are further described in the table which follows.

Table 1: NJ HPwES 2012 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 10% but less than 20%. Must install air sealing. May install insulation and may also install duct sealing and duct insulation measures. Participants may also include water heater measures from the Eligible Measures List.	For Single Family homes, cash rebate of 50% of the costs of the measures used to calculate TES up to $2,000, and up to $5,000 loan at 0% where a utility loan is unavailable; For eligible Multi-Family properties, 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, a $700 production incentive will be paid. For multifamily projects, the contractors will be paid a $50 production incentive per unit.
Tier 3	**Level 1**. Estimated total energy savings from all work must total at least 20% but less than 25%. Must install at least two measures including air sealing from the Eligible Measures List.	For Single Family homes, cash rebate of 50% of the costs of the measures used to calculate TES up to $4,000, and up to $10,000 loan at 0% where utility loan unavailable; For eligible Multi-Family properties, 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, a $700 production incentive will be paid. For multifamily projects, the contractors will be paid a $50 production incentive per unit.
	Level 2. Estimated total energy savings from all work must total at least 25%. Must install at least two measures including air sealing from the Eligible Measures List.	For Single Family homes, cash rebate of 50% of the costs of the measures used to calculate TES up to $5,000, and up to $10,000 loan at 0% where utility loan unavailable For eligible Multi-Family properties, 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, a $700 production incentive will be paid. For multifamily projects, the contractors will be paid a $50 production incentive per unit.

Table 1: NJ HPwES Incentives and Requirements Notes:

1. The Market Manager has been advised that NJ utilities may offer 0% loans or On Bill Repayment up to $10,000 for Tier 3 projects and $5,000 for Tier 2 projects to underwrite the non-rebated portion of the customer cost for HPwES jobs in their service territories. NJCEP will offer 0% loans for HPwES work for any customers where a utility loan program is not in place.
2. 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.
3. Appliances, lighting, doors, and windows are not measures eligible for Program incentives.
4. 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.
5. Contractor support for cooperative advertising will continue to be available. The co-op advertisement plans and incentive structure will be developed and administered by the Market Manager marketing team. Details on the expanded co-op advertising plans and incentive structure can be found in Appendix A - 2012 Residential and Renewable Marketing Plan
6. Projects will continue to have expiration dates. The contractor will need to re-submit 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 resubmittal.
7. The Contractor production incentive will be eliminated if the project fails an initial quality control 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.
8. Incentives are payable only upon satisfactory project completion.

In addition, the above customer and contractor incentives, the Program will be offering additional contractor reimbursement and support for BPI accreditation annual fees and BPI training and sales trainings, as indicated below.

1. The Program will offer 2012 BPI annual accreditation reimbursements for all participating accredited contractors who have completed at least 20 projects in 2012. The BPI accreditation reimbursement will be 25% of the annual BPI accreditation fee up to maximum of $3,000, and will be processed upon presentation of the contractor's paid BPI accreditation invoice.
2. Training support will be available for the following types of trainings:
    i. The program will support between a quarter and a third of the cost of BPI training (for example Building Analyst and Envelope) to encourage new and continuing contractor training, though NJCEP supported courses.

ii. The Program will support sales training to help contractors learn how to best sell HPwES features and benefits to homeowners.
iii. The Program will also continue to support Continuing Education requirement classes for contractors who already have BPI certification.

Multi-Family Buildings

The EPA has determined that small multi-family (MF) building developments may participate in HPwES. The NJ HPwES program defines eligibility as buildings that are:

- no more than three stories high,
- has single ownership,
- total building energy usage is 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),
- is 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 has coordinated 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 C&I Market Manager will offer a pilot financing program for multifamily buildings that undergo efficiency improvements. (Please see the C&I Compliance Filing Multi-Family Financing Pilot Program for details)

The Program will offer the following incentive structure for multifamily projects:

- Improvement packages showing a minimum of 10% but less than 20% estimated total building energy savings will receive a per unit incentive of $500 not to exceed 50% of the costs of the measures used to calculate TES.

- Improvement packages showing a minimum of 20% but less than 25% estimated total building energy savings will receive a per unit incentive of $1,000 not to exceed 50% of the costs of the measures used to calculate TES.

- Improvement packages showing 25% or greater estimated total building energy savings will receive a per unit incentive of $1,500 not to exceed 50% of the costs of the measures used to calculate TES.

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.

HPwES 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[11], are considered single family homes, and as such the same incentive levels given to single family homes will apply to townhouses.

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

Other

- As noted, some NJ utilities are coordinating with the New Jersey Home Performance with ENERGY STAR Program to fund the 0% interest loan. The Market Manager will continue to work with the NJ utilities to leverage these and any other applicable utility incentives in 2012.
- It is incumbent upon the Program to effectively evaluate new technologies as they become available. The Program has a new technology screening process, and as new technologies pass this initial screen, the HPwES program will develop pilot applications as budget allows and as they fit into the overall program strategy.
- Under Tier 3 of the Program, customers replacing heating and/or central cooling systems will be eligible for incentives on their new HVAC systems under the NJCEP HPwES Program; they may not apply for additional incentives from the NJCEP HVAC program. Under Tier 2 of the Program, customers may receive HPwES incentives only for eligible building envelope and duct system energy efficiency measures and eligible hot water heaters; they may not apply for or receive water heater incentives from the NJCEP HVAC program.

[11] 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

Quality Control Provisions

It is very important that the integrity of the HPwES brand be protected. The standards for becoming an HPwES contractor are quite demanding. HPwES contractors must be able to offer service quality and comprehensiveness that unaccredited contractors cannot; otherwise contractors will not go through the training and quality assurance requirements of HPwES.

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 could include denial of access to Real Home Analyzer, 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 program will continue to implement the "Contractor Remediation Procedures", which were approved on October 5, 2010, for all NJ Clean Energy Programs, and became effective on November 7, 2010.

As per the Board Order:

> ***The Board believes that the programs require a certain level of rigor such that customers participating in the program have the confidence that the contractor they select is not a significant or consistent violator of program procedures. Further, the Board believes that the programs require procedures for the Market Managers to address issues related to contractor non-performance or in extreme cases fraud or theft.…***
>
> ***The proposed procedures set out distinguish between different levels of infractions and the recommended actions are appropriately related to the level of the infraction.***

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 is attached in Appendix B.

Goals and Energy Savings

Goals

Single Family

- Tier 2: At least 1,150 customers will receive building envelope improvement packages that achieve at least 10% TES.
- Tier 3, level 1 and 2: At least 2,600 customers will receive improvement packages , such as air sealing, insulation and/or heating system replacements, that achieve at least 20% TES, and a portion of which will achieve at least 25% TES.

Multi-Family

- Tier 2: At least 320 multi-family units will receive building envelope improvement packages that achieve at least 10% TES.
- Tier 3, level 1: At least 240 multi-family units will receive improvement packages , such as air sealing, insulation and/or heating system replacements, that achieve at least 20% TES.
- Tier 3, level 2: At least 240 multi-family units will receive improvement packages , such as air sealing, insulation and/or heating system replacements, that achieve at least 25% TES.

Energy Savings

Energy savings will be calculated consistent with the latest Board approved protocols.

Please see Appendix C

New Jersey's Clean Energy Program™

2012 Renewable Energy Programs

Program Description

New Jersey's Clean Energy Program (NJCEP) offers incentives and market services to New Jersey electric utility customers investing in renewable electricity generation using solar photovoltaic (solar), wind and sustainable biopower resources. There are two programs in the NJCEP Renewable Energy portfolio for 2012.

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. Direct 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.

2) Renewable Energy Incentive Program (REIP): Offers incentives and registration for renewable energy certificates (RECs) for customer-sited wind and biopower projects. Solar projects are not eligible for REIP upfront rebates.

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.

SREC Registration Program (SRP) – Solar Projects

Overview of New Jersey's Solar Market

Despite continuing sluggishness in the overall economy, the solar market in New Jersey remained robust for both residential and non-residential markets. Through the first ten months of 2011, approximately 230 MW of new solar capacity was installed in New Jersey, surpassing the 132 MW of capacity installed in all of 2010.

By mid-summer of 2011, New Jersey had surpassed the dual milestones of 10,000 total installed projects and 400 MW of installed capacity. This represents more than $3 billion in project investments (30% of which was matched by federal dollars), that has 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 second only to California in the amount of solar capacity installed, although New Jersey surpassed California in the non-residential market installed capacity during the second quarter of 2011. In addition, the solar project pipeline remains strong with over 570 MW of project capacity that has been approved by the NJCEP Market Manager.

Since March 2011, the SRP program has been receiving an average of more than 700 applications per month, with more than 6,500 applications received in the first nine months of 2011. In addition, more than 4,000 projects were completed during that same period. However, the Market Manager anticipates that the expected expiration of the Section 1603 Tax grant and lower SREC prices will have a dampening effect on the pace of new development in 2012, and projects that new applications in 2012 will reach only 70% of 2011 levels.

Program Description

In 2012, the focus of the SRP will be on sustaining the growth of New Jersey's solar markets while communicating accurate, objective information with respect to SREC prices.

The transition to electronic registration and processing and the ongoing requirement that all SRP projects require a revenue grade meter to measure the system output will allow for a more streamlined and automated registration submittal and acceptance process in 2012. These changes will allow the program to manage the robust application volumes, while reducing costs and improving the experience of program participants.

2012 Program Changes

In response to stakeholder feedback, market conditions, and policy developments, the Market Manager proposes a number of enhancements and changes in the 2012 Program Plan. These include:

1) In 2011, the New Jersey Renewable Energy Manufacturing Incentive program (NJREMI) was administered by the Market Manager and offered rebates to customers who purchased solar panels, inverters and racking systems from New Jersey manufacturers. NJREMI will end on 12/31/11. Projects that are eligible for NJREMI incentives from prior years will only receive an NJREMI incentive payment upon meeting all of the following requirements:

    a. NJREMI payments are limited to the $1 Million budget approved in the 2011 Plan and Budget. Any NJREMI incentive requests received after the $1 million budget has been fully spent will be denied.

    b. The project must have received an NJCEP REIP approval letter or SRP project acceptance letter prior to 12/31/11.

    c. The project must submit a fully compliant Final As-Built package demonstrating full compliance with the NJREMI requirements on or before the earlier date of 1) expiration date listed in the original project approval or acceptance letter or 2) March 31, 2012. NJREMI payments will not be processed for any Final As-Built submittals received in the Market Manager's office after March 31, 2012.

2) Continue to process the growing volume of SREC Registration applications, using automation to reduce administrative fees associated with project applications. New registrations in the SRP will be required to be submitted via the online application procedure which is under development by the Market Manager. The online application portal will be utilized by a limited number of installers during the initial stages and then will be expanded to include all registrants. The Market Manager will implement remediation procedures utilizing the process established in the October 5, 2010 Board Order if installers violate program rules.

3) Improve outreach efforts by (1) reviving financing seminars in light of changes in SREC prices and the anticipated expiration of Section 1603 grant provision of Federal Investment Tax Credit; (2) conducting seminars for realtors and appraisers on the value that EE and RE measures bring to residential and commercial properties; and (3) continuing to use the Solar Technical Working Group as a forum to address questions relating to rules, inspections and

technical issues. For purposes of cost and convenience, meetings could be conducted as webinars or on a regional rather than statewide basis.

4) In order to improve assessments of project viability and reduce the number of registrations submitted for projects that may never be built, the Market Manager will require that, consistent with regulatory amendments proposed for the Renewable Portfolio Standard at N.J.A.C. 14:8-2.4 by the Board on March 30, 2011, all SRP registrations submitted after January 1, 2012 include a copy of one recent EDC bill for the host facility (for Net Metered projects only), the cost of equipment and installation, a site map, construction schedule and contract elements listed in the New Registrations section of this document.

5) The Market Manager may conduct site visits upon written request from the OCE to verify the installation of ANSI-C12 revenue grade output meters on randomly selected solar projects, as requested by OCE. Rebated projects that are still in the system will continue to be inspected at the 20% level and non-rebated projects at the 10% level. When adopted, the BPU's rule amendments will establish new paperwork requirements in both the Registration and Final As-Built packages that carry over into 2012. Please refer to the Planned Program Implementation Activities section of this document for additional details.

6) Also toward consistency with the amendments proposed for the Renewable Portfolio Standard at N.J.A.C. 14:8-2.4 by the Board on March 30, 2011, the extension policy for SRP projects is refined to require only the documentation that supports the likely completion of the project. Please refer to the section entitled "Extension Policy for SRP Solar Projects".

7) N.J.S.A. 45:5A-2(d) states that solar PV systems 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. Starting with SRP paperwork received in 2012, the Market Manager will collect the name of the NJ electrical license holder and NJ license number on the SRP application 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.

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 SRP 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 has now completely transitioned to a non-rebated, performance-based incentive structure. 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 2012, there will be no upfront rebates available for solar projects. However, all solar generating facilities that are interconnected with an electric distribution system in New Jersey will continue to be eligible to generate NJ SRECs by registering in the SREC Registration Program (SRP).

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 the tracking and trading of SRECs and Class I and Class II RECs.

In 2012, the Market Manager will streamline and automate parts of the SREC registration process. A full listing of program administrative changes is detailed in the Planned Program Implementation section below.

REIP Rebate Program – Wind and Biopower Projects

Wind Program Description

New Jersey's small wind program experienced a difficult year in 2011, as two safety-related incidents early in the year led to a temporary hold on rebate processing activities for all approved projects and acceptance of new applications. The temporary hold was lifted by mid-year on approved projects not using equipment involved in the two incidents. NREL was contracted to perform a forensic study on the two turbine failures which commenced in November 2011.

BPU staff and the Market Manager team worked with stakeholders to develop improvements to the wind rebate program for 2012. A straw proposal was developed and discussed at the October 18, 2011 Small Wind Working Group (SWWG) meeting. Based upon the meeting discussions and the comments received on the straw proposal circulated, Staff does not feel the proposed changes adequately protect public safety to enable reopening the small wind rebate program to new rebate commitments and rebate application processing. Therefore, we are continuing the temporary hold on new application acceptance and rebate commitments in the NJCEP Renewable Energy Incentive Program (REIP) for wind systems.

Staff and the Market Managers will continue to research the consumer protections existing in other state wind incentive programs and utilize recommendations from the NREL forensic study on the two turbine failures in NJ expected in early January to develop a revised straw proposal and reconvene the NJ Small Wind Working Group in January.

During this time, staff is requesting public comments focused only on consumer protection particularly the protection of public safety and the mitigation of risk from inconsistent warranty coverage. The specific concern we are looking to address is what can be added to the program requirements that will:

- Ensure that all safeguards to public health and safety have been utilitized, and
- Protect a consumer if they purchase and install a wind system that subsequently experiences a major failure not covered by warranty.

BPU staff and the Market Manager team are seeking comments from stakeholders, including customers, prospects, installers and manufacturers. We would like to know if manufacturers have offered or would be willing to offer a refund and removal of a defective system. If so, under what conditions? We are also seeking comments from legal or insurance representatives in search of any potential insurance protection package that may serve that function. A public comment period for suggestions limited to the topic of additional consumer protection is open until Friday, December 16, 2011.

The NREL study is expected to be completed by the end of January. Once the study's results and recommendations are available, we will reconvene the SWWG to discuss them, as well as changes to the draft program revisions and any additional public comments received on consumer protection.

The result of the program design changes developed from the stakeholder process will be fashioned into a formal recommendation for re-opening the program. These recommendations will be presented to the Board for approval at a subsequent agenda meeting.

2012 Wind Program Changes - Anticipated

1) Behind the meter wind projects with existing rebate commitments will remain eligible for an REIP incentive using the guidelines in effect in 2011.

2) The temporary hold on new commitments noted in the Program Description section remains in effect for new wind project applications. The decision on how and when to proceed with lifting the temporary hold on new project applications will be contingent upon the NREL study that is expected to be completed by the end of January 2012. Updates on this process will be posted on the NJCEP Renewable Energy website and distributed to the SWWG listserv.

3) Once the 2012 REIP program for wind systems is accepting applications, no extensions will be granted for projects under the previous rebate programs. Any project with an existing commitment that does not complete within its commitment length can submit a new application under the improved rebate design to ensure that all projects and program participants enjoy the protections of the proposed program design.

4) Incentives will also be provided to support project feasibility studies for wind power projects larger than 100 kW. The incentive level will match 50% of the cost of the feasibility study, capped at a maximum of $50,000.

Wind Target Markets and Eligibility

The wind technology eligible to participate in the REIP is turbines that convert the kinetic energy of wind into electricity. All systems must meet program requirements regarding

equipment certification, proper installation practices and compliance with program procedures and processes.

In contrast to solar, onshore wind markets remain in earlier stages of market evolution, and have experienced only a fraction of participation relative to solar. Onshore wind markets are limited by local siting and permitting issues (including "not in my backyard" or NIMBY opposition), which translate into delays in project development and approval. The wind markets include new unproven technologies, a limited numbers of skilled installers, a lack of existing customer references, and many uncertainties in the project development process. As a result, the state may not be on track to meet its Energy Master Plan goals of 200 MW of onshore wind by 2021.

In 2012 the NJCEP will continue to offer incentives under the REIP program for onsite wind projects, pending the lifting of the temporary hold on new wind applications. The wind incentives are intended to support renewable electric systems that offset the customer's onsite electric consumption, but do not produce net excess generation from the site on an annual basis. In 2012, the wind program will also include an incentive to support project feasibility studies. To be eligible, an applicant must be a ratepayer of a NJBPU regulated electric utility and pay the Societal Benefits Charge.

To be eligible for an REIP incentive, wind systems must be sized equal to or less than estimated annual onsite electric use. The incentive is based on the expected performance of the system. The rebate levels, incentive caps and program requirements for the REIP wind program will be discussed further during an early first quarter 2012 Small Wind Working Group meeting. Wind projects are also eligible for Class 1 RECs.

Wind Offerings and Customer Incentives

Wind will remain eligible for incentives under the REIP program for behind the meter projects where annual consumption by the host site equals or exceeds expected system output. Wind will also be eligible for incentives for feasibility studies as defined below.

As noted in the Program Description section, the wind component of the REIP was placed on hold in March 2011 following two safety-related incidents. The Market Manager conducted extensive research on wind equipment safety, certification, performance, insurance and related issues, working closely with the National Renewable Energy Laboratories (NREL) and Small Wind Certification Council and receiving stakeholder comments from members of the Small Wind Working Group (SWWG). Based on that research and input, the Market Manager made recommendations for modifying the program that were presented to the SWWG during a meeting was held on October 18, 2011. A written public comment period on the recommended changes followed through October 28, 2011.

The temporary hold is being continued for new applications because the comments received during the October 18, 2011 SWWG and written public comment period did not satisfy the BPU concerns for additional consumer protection in the program. The BPU has decided to continue the hold until the results and recommendations from the forthcoming NREL forensic study on the two turbine failures has been completed.

Biopower Program Description

The biopower market in New Jersey must be invigorated if we are to achieve the goal of 900 MW by 2021 that is referenced in the 2011 Draft Energy Master Plan (EMP). To achieve this goal, the Market Manager intends to align its program efforts and incentives with recommendations from several reports and market assessments performed in the past.

A 2008 Summit Blue Consulting LLC market assessment report to the BPU called for "an increased focus on non-solar project development" that utilized "targeted outreach and incentives" to trigger growth in the market. As the report points out, biopower development has been hampered by several factors. These include high initial costs; siting and permitting issues made all the more difficult by a not-in-my-backyard culture; and lack of feedstock security. Adding to these challenges is a biopower industry that is heterogeneous, offering a variety of technologies (anaerobic digestion, pyrolysis, gasification); feedstocks (municipal solid waste, wood, manure and agricultural crops); and types of energy produced (electricity, thermal energy and transportation fuels). The Renewable Energy Incentive Program (REIP) is focused exclusively on motivating power production, with an incentive option for combined heat and power (CHP).

Although the Market Manager does not have the ability to remedy some of the barriers to increased biopower development (such as siting and permitting), it can act as a facilitator with the parties that may be able to take action. For example, the Market Manager has already initiated discussions with officials at the DEP to develop a list of certified "sustainable biomass" feedstocks and to address issues related to the SOTA (state of the art) determinations required for biopower projects. Overcoming these barriers requires a greater role for education and outreach in the 2012 program plans and budget than in previously proposed Compliance Filings.

2012 Biopower Program Changes

A report issued by the subcommittee appointed by the BPU to examine biopower issues in the Energy Master Plan ("Biomass Resources for Producing Renewable Power and Fuels in the State of New Jersey and Incentives to Promote their Development", dated September 26, 2011) stated that "current incentives are ineffective when it comes to stimulating the development of the biomass-to-energy sector" and also noted that Class I RECs were ineffective because of their low value. In view of this, the Market Manager can align itself with the subcommittee's recommendations by taking steps to ensure that the incentives provided through the REIP are more effective in stimulating the biopower market. To that end:

- The REIP incentive structure for 2012 has been revised to offer higher rebates than in previous years; to reduce the number of tiers within the structure while still recognizing the need to provide higher incentive to projects that cannot benefit from economies of scale; and coordinating the incentives for biopower CHP with those for natural gas-powered CHP offered in a different NJCEP program for commercial and industrial stand alone CHP.

- In an effort to encourage the development of CHP over conventional power-only generation, the incentive differential between power-only and CHP has been widened.

- In addition, applicants for REIP biopower incentives will have 18 months from the date of the approval letter to complete their project.

- In placing greater emphasis on market development in biopower, the Market Manager will conduct outreach activities to high potential customers, project developers and equipment manufacturers through a series of geographically targeted meetings and workshops.

- The Biopower Working Group will be reconvened and meetings will resume on a regular basis.

- The Market Manager will also coordinate existing staff resources in partnership with the Biopower Working Group, the EMP subcommittee on biomass, and Rutgers to study specific issues outlined in the EMP subcommittee report (e.g., conducting an inventory of industrial waste; ascertaining the highest and best use New Jersey's feedstocks, etc.) and to prepare a specific, focused re-assessment of New Jersey's biopower market potential that will serve to update and complement the 2007 Rutgers study, "Assessment for Biomass Potential in New Jersey."

Biopower Target Markets and Eligibility

Although a 2007 Rutgers study titled "Assessment for Biomass Potential in New Jersey" stated that biomass could provide up to 9% of New Jersey's electric needs, it is clear that this potential will not be fully realized without a comprehensive effort to overcome the economic and regulatory barriers to biopower development. Greater resources are proposed to be directed toward outreach efforts, with the Market Manager taking an active role in bringing together customers in high-potential industries with equipment manufacturers, project developers, engineers, the Department of Environmental Protection (DEP) and academia. High-potential industries include those which generate large amounts of waste and have high on-site electric (and thermal, for CHP applications) demand, such as:

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

Because biomass is generally a bulky, low-value commodity that is difficult and costly to transport, the on-site use of the biomass for power generation is economically preferable to transporting it to a centralized facility. However, centralized facilities will play a role in large-scale biopower projects that require the importation of feedstocks (such as municipal solid waste) from multiple sources.

To be eligible for the REIP incentive, biopower systems must be sized equal to or less than estimated annual onsite electric use. The incentive is capped at 1 MW AC of rated capacity.
Biopower systems are also eligible for Class 1 RECs.

Biopower Offerings and Customer Incentives

In 2012, the biopower incentive structure will be simplified and adjusted to reflect the emphasis placed on both biopower itself and on CHP technology. Incentives will continue to be offered for power generation only, but at a lower level than 2011. An enhanced incentive will now be offered for CHP in an effort to steer customers toward that technology, and to represent a premium over the incentive available for both power-only generation and conventional natural gas-fired CHP under the commercial and industrial energy efficiency component of the NJCEP. As per existing REIP guidelines, all projects – whether power generation only or CHP – must be net metered and must not generate power in excess of the host facility's annual consumption. Projects capable of supplying power that exceeds the limits imposed by the Board's Net Metering and Interconnection regulations will be steered toward the Office of Clean Energy's Grid Supply Solicitation. In addition, applicants for the REIP incentives outlined below will have 18 months from the date of their approval letter to complete their project. 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.

2012 REIP Biopower Incentive Schedule for Power Generation Only

Power Only Incentives	
Watts	**$ Per Watt**
First 500,000	$2.00
Next 500,000	$1.00

For example, a 600,000 watt system would receive a rebate of $1.1 million (500,000 watts x $2.00 = $1 million plus 100,000 watts x $1.00 = $100,000). Although there will be no limit on the size of the system itself, the REIP incentive will continue to be capped at the dollar level equal to 1 MW or 30% of the installed cost, whichever is less, up to a maximum of $1,500,000. Installed costs include all documented capital costs to supply and operate the system including feedstock collection, fuel conversion technology, storage, refining, power generation, and monitoring systems. In situations where power generation units 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.

It should be noted that the above schedule applies to projects which seek to generate onsite power only (i.e., proposing to connect behind-the-meter in accordance with the BPU's net metering and interconnection regulations).

Projects which seek to generate combined heat and power (CHP) will be eligible for an additional incentive defined in the section below. The 2012 incentive structure has been simplified from 2011 and adjusted to reflect both the economies of scale inherent in

larger projects and the incentives available under a separate NJCEP commercial stand alone program for non-renewable CHP.

2012 REIP Biopower Incentive Schedule for Combined Heat and Power

Combined Heat & Power (CHP) Incentive	
Watts	**$ per Watt**
First 500,000	$3.00
Next 500,000	$2.00

For example, a 600,000 watt system would receive a rebate of $1.7 million (500,000 watts x $3.00 = $1.5 million plus 100,000 watts x $2.00 = $200,000). As with the power-only incentives, there will be no limit on the size of the system itself, as long as it is net metered and does not exceed the annual electric consumption of the host site. However, overall incentives for CHP projects will be capped at the lesser of 40% of project costs or the per-watt incentive calculated according the schedule above, up to a maximum of $2,500,000. 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 CHP equipment is being added will not be eligible for inclusion in calculating the total project incentive. As with power generation only, incentive payments will not be made on the value of any existing facilities but will be applied only to the cost of new CHP equipment.

Any biopower project applying for CHP incentives must meet all eligibility requirements as defined by the NJCEP for a CHP program, which includes an annual system efficiency of at least 60%, based on total energy input and total utilized energy output.

The Market Managers will refer customers to the CHP program that best suits the customer needs; whether that be natural gas powered CHP (Commercial and Industrial Energy Efficiency Market Manager) or biopowered CHP (Renewable Energy Market Manager).

Rebate payments will continue to be made for all biopower projects on the existing basis of 100% payment upon project completion.

Wind and Biopower Feasibility Studies

The Feasibility Study Incentive is designed to promote development of customer sited wind energy and sustainable biopower projects by offering an incentive during the feasibility phase of the project. A feasibility study is a compilation of analytical tools and

assessments that assist in determining the viability of a project. The incentive will provide financial support for sound engineering, financial, and legal analysis of projects to help improve the likelihood of the systems being built. It will also provide an opportunity for companies interested in pursuing projects with wind and biopower technologies to evaluate the feasibility of the projects without incurring the entire financial burden. The study shall entail a comprehensive analysis that provides the necessary information to determine if a development project is technically, economically, and legally viable to allow the customer to make an informed "Go" or "No-Go" decision. A detailed outline of data required in the study has been developed to ensure consistency of formats and thoroughness of the study documentation.

The Feasibility Study Incentive is available to all New Jersey non-residential market segments that contribute to the Societal Benefit Charge (SBC) through the utility bill. Only behind the meter / net metered projects are eligible. The system(s) proposed must satisfy the current technical and program requirements as defined by the existing REIP program for wind or biopower equipment. The anticipated system size must be greater than or equal to 100 kW as justified through current 12 months historical energy consumption. All feasibility studies must be stamped by a licensed professional engineer. For wind systems, studies performed by a certified wind site assessor will also be acceptable. The size of the incentive awards will be determined by the expected size of the project. The NJCEP will pay up to 50% of the cost of the feasibility study not to exceed $50,000. The incentive payment will be paid in two equal installments. The first incentive payment will occur after completion of the feasibility study, and the second incentive payment will occur only if the wind or biopower project that was studied is completed, and will be paid after the installation is complete.

In 2012, the incentive structure for wind and biopower feasibility studies is being simplified and made consistent with the project incentive structure per the chart below:

2012 Feasibility Study Incentive Structure

Expected Project Size	Incentive Award Range
100,000 – 500,000 watts	50% of the cost of the feasibility study or $25,000, whichever is less.
501,000 – 1,000,000 watts	50% of the cost of the feasibility study or $50,000, whichever is less.

To be eligible for the incentive, an applicant must submit an application packet to the REIP Program to request approval for a Feasibility Study Incentive. This packet will include the following:

i. **Current REIP Application Form**

ii. **Applicant Prequalification**: All applicants must demonstrate that the customer has been prequalified and informed about the steps that are involved in developing a wind energy or sustainable biopower project. Prequalification may include:
   - **a.** A statement of the Applicant's goals for the project.
   - **b.** Standard financial underwriting requirements such as a credit check, borrowing capacity, budgeting and cash flow analysis.
   - **c.** Annual energy usage and how this matches up with the typical turbine or biopower generator's energy output.
   - **d.** Expectations on the customer's involvement in permitting, installation and maintenance.
   - **e.** For biopower projects, the anticipated sustainable fuel source or feedstock.

iii. **Site Prequalification**: All applicants must demonstrate that the site has been prequalified by identifying basic information about:
   - **a.** The property's size and distances to abutters
   - **b.** The site's orientation
   - **c.** The utility territory
   - **d.** For wind systems, the average annual wind speed (Per REIP wind program requirements, sites must demonstrate a wind resource that is at least 11 MPH annual average at 50 meters according to existing wind resource maps).
   - **e.** For biopower systems – indicate roadway or rail access for feedstock delivery and demonstrate whether traffic impact studies may be required; indicate whether the New Jersey Department of Environmental Protection Air Quality Permitting Program testing and/or permitting may be required and included in the study.
   - **f.** Known zoning requirements

iv. **Letter of Commitment**: This letter should be signed by both the customer and the prime contractor who will be completing the feasibility study, and include the following:
   - **a.** The price of the study
   - **b.** An outline of the deliverables included in the price
     1. This will need to match the Feasibility Study Outline document published on the feasibility study pages on www.njcleanenergy.com
   - **c.** A timetable that shows the feasibility study will be completed within six months.

v. **Team Qualifications:** Each application must include the qualifications of the development and feasibility study team.

Applications that meet threshold eligibility requirements will qualify for the Feasibility Study Incentives. However if demand for studies exceeds the funding available, applications will be subject to a review by an evaluation committee. The projects will be ranked by a committee of experts, without conflict. Final awards will be determined based on indicators including, but not limited to:

- Scored reviews by the evaluation committee
- Funding availability
- Committee rankings
- Award recipient diversity (individual, nonprofit, profit, etc)
- Total amount of disbursement

Once the project is approved, a letter stating this and the terms and conditions will be mailed to the applicant and the installer. The completed feasibility study will need to be submitted to the NJCEP market manager within six months of the date of the approval letter. Upon acceptance by the NJCEP, if the study is deemed complete, the processing team will set up payment for the first half of the incentive, and the completed study will be posted on the NJCEP website.

The second half of the feasibility study incentive will be added to the incentive for the renewable system project only if the NJCEP approves the incentive for the studied system. This portion of the incentive will be paid upon completion of the project.

Any proprietary information submitted with the feasibility study must comply with the NJ Open Public Records Act (OPRA). The feasibility study information that is not protected by OPRA, will become public information. The NJCEP will institute a wind technical work group and a biopower technical work group made up of interested stakeholders that would review the results of the studies to provide input and justification for future program changes and enhancements.

REIP Program – Solar Projects

The REIP program was closed to new solar applications in 2010. However, the Market Manager will continue to process the existing applications. Please refer to the sections below on Planned Program Implementation Activities and Quality Control/Quality Assurance Provisions for discussions on the ongoing processing and inspections for all REIP wind, biopower and solar projects.

Planned Program Implementation Activities for 2012

Program Priorities

The Renewable Energy Programs will have the following areas of focus in 2012:

1) Sustain the growth of New Jersey's solar markets, while communicating accurate and objective information on 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 onshore wind and biopower.
3) Wind down all rebate programs by managing the carryover projects from CORE and solar REIP.
4) Manage the increased volumes of SRP projects by automating the registration process.

The Market Manager may conduct site visits to verify the installation of ANSI-C12 revenue grade output meters on solar projects if requested by OCE. Rebated projects that are still in the system will continue to be inspected at the 20% level and perform on site verification for non-rebated projects at the 10% level.

To reduce administrative costs and improve program participant experience and turnaround time, the 2012 SRP registration process will be automated. In 2012 the Market Manager will implement and launch the changes summarized below:

For New SRP Registrations Received Beginning January 1, 2012

The Market Manager will continue to require the submission of the following documents for new SRP registrations in accordance with the BPU's Net Metering and Interconnection rule amendments:

- SRP Registration Form
- Technical Worksheet
- Cost of equipment and installation
- Copy of one recent EDC bill for host facility (for Net Metered projects only)
- Site Map
- Contract (Full copy not required, must provide key elements such as host location, parties to the contract, project cost and signature page with dates.)
- Construction schedule

The last four items on the list are now included to ensure that each application submitted represents a project with a reasonable likelihood of completion. The copy of a recent

utility bill helps verify that the host facility maintains an active account for electric service; the contract elements ensures the existence of an agreement to install the system; the site map verifies that the proposed system is being installed properly with respect to the facility's features; the construction schedule marks the steps toward project completion.

Also effective with the BPU's recent rule amendments is a requirement that construction on a project may not begin until an SRP project acceptance letter is issued. Violation of this rule may result in a delay in the creation of the first 12 months of the project's SRECs.

However, applicants are reminded that the SRP project acceptance letter does not constitute net metering and interconnection approval, and that they may be at risk of proceeding with a project that the utility refuses to interconnect based on the utility review of the system output and historical consumption. On-site load at least equal to project generation must exist before a net-metered system may be energized or final program approval is issued. The EDCs will require at the time of interconnection the existence of sufficient load to justify the capacity installed.

In 2012, the Market Manager will have launched a web based application portal that enables program participants in the SRP program to automate applications, document submissions, and to provide project status tracking. The SRP project status tracking which does not currently contain any information on the construction status was recommended by stakeholders in the solar transition proceedings to be expanded to include required updates upon the achievement of certain project construction milestones consistent with the proposed regulatory amendments. These milestones may include events which indicate the date upon which the construction of the solar array has commenced.

Final As-Built Paperwork for all SRP Projects Beginning on January 1, 2012

Consistent with the process change that was implemented in 2011, to improve processing efficiency and reduce administrative costs, the final paperwork should be submitted as one complete package, rather than submitting the Final As-Built package first, and then the remaining paperwork after the program inspection (or waiver). However, an exception will be made if the expiration date is near and applicant has met all Final As-built submittal requirements but has not received the EDC Notification. In this case only, the applicant should submit all other required Final As-built documents and then provide the EDC Notification as soon as it is available.

Required Items:

- Final As-Built Package
    - Technical Worksheet
    - PV Watts actual and ideal estimated annual output

  - Shading analysis
  - Site Photos (inverter modules and revenue grade meter)
  - ANSI-C12 certified meter worksheet (to demonstrate compliance with revenue grade meter requirement to measure system output)
- Completed PV Commissioning Form – registrants may use the NJCEP PV Commissioning Form or provide the same information in another format when submitting Final As-Built paperwork.
- EDC Notification of interconnection completion - the written notification that the system is authorized to be energized from the utility. Per the N.J.A.C. 14:8-5.8 - requirements after approval of an interconnection, once the EDC performs an inspection or determines that no inspection is needed and has received an executed interconnection agreement from the customer-generator; the EDC shall notify the customer-generator in writing that the customer-generator is authorized to energize the customer-generator facility. This notification may be in the form of an email or a letter from the EDC.
- SRP projects that executed a Board-approved SREC Purchase and Sale Agreement (PSA) with their EDC resulting from their participation in either Solicitation Round 6 (February 2011) or Solicitation Round 7 (June 2011) of the EDC SREC Financing Program are eligible for the 2011 ESFI incentive as outlined in the 2011 approved Program Plan. In order to receive the ESFI incentive, those projects must provide a copy of page 1 (Effective Date), page 5 (Signature Date) and Appendix B (Seller's Project) of the fully executed Purchase and Sale Agreement.

Consistent with the BPU's rule amendments, any increase or decrease of more than 10% of the project's generating capacity from what was specified in the initial registration package requires the registrant to notify the Market Manager in writing within 10 business days of the change.

Final As-Built Paperwork for all REIP and CORE Rebate Projects Beginning on January 1, 2012

To improve processing efficiency and reduce administrative costs, Final As-Built paperwork is required to be submitted no later than the expiration date as one complete package, rather than submitting the Final As-Built package first, and then the remaining paperwork after the program inspection (or waiver). However, an exception will be made if the expiration date is near and applicant has met all Final As-built submittal requirements but has not received the EDC Notification. In this case only, the applicant should submit all other required Final As-built documents and then provide the EDC Notification as soon as it is available.

Required Items:

- Final As-Built Package
  - Technical Worksheet

  - A revised REIP Solar Technical Worksheet with the correct rebate calculation if the system size has changed since the initial application submittal.
  - PV Watts actual and ideal estimated annual output
  - Shading analysis
  - Site Photos (inverter, modules and revenue grade meter)
  - Meter worksheet
- Completed PV Commissioning Form – registrants may use the NJCEP PV Commissioning Form or provide the same information in another format when submitting Final As-Built paperwork.
- EDC Notification of interconnection completion - the written notification that the system is authorized to be energized from the utility. Per the N.J.A.C. 14:8-5.8 - requirements after approval of an interconnection, once the EDC performs an inspection or determines that no inspection is needed and has received an executed interconnection agreement from the customer-generator; the EDC shall notify the customer-generator in writing that the customer-generator is authorized to energize the customer-generator facility. This notification may be in the form of an email or a letter from the EDC.
- Incentive Confirmation and Final Application Sheet

Extension Policy for Solar CORE and REIP Projects

Consistent with the Board Order resulting from the Board Agenda meeting on 6/15/11, Item 8C, effective on June 20, 2011, the Market Manager was authorized to grant extensions for CORE and REIP projects under the following circumstances:

- Projects that have not received an extension prior to June 20, 2011 may be eligible for only one extension and must provide documentation to demonstrate the following items:

  a. Engineering and design work has been completed.
  b. Construction permits have been approved by the authority having jurisdiction (where applicable).
  c. Project materials including the panels, inverters and mounting system are on site.

  Projects that meet all requirements for a first extension may be granted an extension from the original project expiration date as determined by the size of the project. Projects less than or equal to 10.0 kW will be eligible for a four month extension and projects greater than 10.0 kW will be eligible for a six month extension.

- Projects greater than 10.0 kW that have already received a first extension may be eligible for one additional extension by providing documentation to demonstrate the following items:

a. Engineering and design work has been completed.
b. Construction permits have been approved by the authority having jurisdiction (where applicable).
c. Project materials including the panels, inverters and mounting system are on site.
d. The system must be substantially installed and awaiting final interconnection approval or in the startup and testing phase.

Projects that meet all second extension requirements may be granted an extension for a period of six months from the current project expiration date. If the project is not completed within this second extension period, no additional extensions will be granted by the Market Manager.

The Market Manager will consider extension requests in the two cases described above only if the requirements for an extension are satisfied, and where the delay was unavoidable and unforeseeable at the time of the rebate application. Approval of any extension will depend on the totality of circumstances, as demonstrated through documentation provided with the extension request.

Extension Policy for SRP Projects

The following policy pertains to extensions for projects registered under the SREC Registration Program (SRP); this policy is consistent with the Board's recently proposed rule amendments. It describes the processes for completion deadlines and extensions for all SRP registrations.

- Projects will be given 12 calendar months to be completed, as measured from the date on the acceptance letter to the date the complete Final As-Built packet is received by the Market Manager.

- If the project cannot be completed within the initial 12-month period, the registrant/contractor may apply for an extension. Extension requests must be received before 5:00 PM on the expiration date of the initial acceptance letter. The request must include the updated schedule for completion and documentation such as permits, purchase orders, photos, etc. that support the likelihood of timely and successful completion of the solar facility.

Upon conducting a review of all required documents, the Market Manager may grant an extension for a period of six months.

Extension Policy for ESFI (if applicable)

- For those projects that entered into a valid SREC Purchase and Sale Agreement (PSA) with their EDC, the expiration date for both the SRP registration and the ESFI incentive (if applicable) will be adjusted to coincide with the expiration date of the SREC PSA. If the PSA expiration date has been extended by the EDC in accordance with the Board Order dated March 12, 2012 in docket numbers EO08100875, EO08090840 and EO09020097 then the expiration date for both the SRP registration and the ESFI incentive (if applicable) will be adjusted to coincide with the new expiration date of the SREC PSA. If the SREC Registration Program requirements are not met by the expiration date of the original PSA or the extended PSA expiration date (if granted by the EDC) then the ESFI incentive eligibility will terminate.
- SRP registrations that receive an extension when their PSA is extended by the EDC as described above are not eligible for an additional extension through the Market Manager.

Extension Policy for Approved REIP Wind Systems

Staff is proposing modifications to the current extension policy for all wind projects.

Projects that have not received an extension but will be expiring prior to the opening of the 2012 REIP for wind systems may be eligible for only one extension and must provide documentation to demonstrate the following items:

a. Engineering and design work has been completed.
b. Construction permits have been approved by the authority having jurisdiction (where applicable).
c. Project materials including the tower, turbine and inverters are on site.

Projects that meet all requirements for an extension may be granted an extension from the original project expiration date as determined by the size of the project. Projects less than or equal to 10.0 kW will be eligible for a 4 month extension and projects greater than 10.0 kW will be eligible for a 6 month extension.

The consumer protection measures in discussion for the 2012 REIP program wind systems will not apply to projects approved in previous programs. Once the 2012 REIP program for wind systems is accepting applications, no extensions will be granted for projects under the previous rebate programs. Any project with an existing commitment that does not complete within its commitment length can submit a new application under the improved rebate design to ensure that all projects and program participants enjoy the protections of the proposed program design.

Other Program Services

In addition to incentives, the Market Managers 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 market on the New Jersey market and programs, and to provide customer support to installers and project owners on project status, and issues troubleshooting.

2) Facilitate industry workgroups, including the Renewable Energy Committee meetings, the small wind working group, the solar technical workgroup, and the biopower working group.

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

4) Expand outreach efforts to promote wind and biopower markets, including speaking engagement and presentations. The Market Manager will also work with the biopower work group to better understand the statewide market potential of biopower.

5) Monitor policy development processes and inform the market of key outstanding questions and decisions (e.g. new RPS levels, net metering, Community Energy) 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, REC and SREC trading prices and volumes, and the project pipeline based on SREC registrations and 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. Focus in person trainings on market development in the financial services industry, and for wind and biopower projects.

Quality Control / Quality Assurance Provisions

All renewable energy systems facilitated through the CORE, 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 direct inspection QC process to ensure program compliance.

Inspections will be limited to rebated projects only, and will include the following steps:

- Collect solar panel make and model information
- Collect inverter make and model information
- Verify inverter operation & record output reading
- Verify the existence of a revenue grade meter for the system output & obtain a reading
- Verify panel tilt and orientation
- Perform rooftop inspection

Inspections tasks performed by the Market Manager will no longer include calculation of estimated annual production, evaluation of manufacturers' specifications, performance of on-site shading evaluation, or performing string sizing evaluation. However, the Market Manager at its option may perform any of these tasks if there appears to be a discrepancy with what was submitted on the Final As-built paper work.

For non-rebated projects, on-site verifications will involve a more limited scope of work including:

- 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 (review of "Final As-Built" information, including PV watts, shading analysis, photos, etc.) while all other applications will be reviewed only for panel count and manufacturers information.

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 remediation procedures against contractors who willingly and consistently violate program rules or misrepresent information.

Budget

The total Honeywell Renewable Energy budget for 2012 is $28.38 Million. This includes estimated carry over commitments from prior years, $7.195 million of new incentive funds and $2.805 million for 2012 Market Manager administrative fees. A detailed budget for the 2012 Honeywell Renewable Energy programs is attached in Appendix B.

2012 Honeywell Renewable Energy Program Budget

Description	($ Million)
Carry Over CORE and REIP Program Commitments From Prior Years (1)	$18.383
Wind & Bio Power – New Project Incentives (1)	$ 7.195
2012 Market Manager Administrative Fees	$ 2.805
Total	**$28.383**

(1) These amounts are in addition to any uncommitted carryover that will be identified by the end of year true-up during Q1, 2012.

Goals and Renewable Generation

The REIP program supports the goals outlined in the New Jersey Energy Master Plan, which defines the following installed capacity goals for 2021 for renewable technologies:

- 2,120 MW Solar
- 200 MW Onshore Wind
- 900 MW Biopower

In 2012, 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 2012

Energy Year	Solar Electric	Class I Renewable Energy	Class II Renewable Energy
June 1, 2011-May 31, 2012	442 GWH	6.320%	2.5%
June 1, 2012-May 31, 2013	596 GWH	7.143%	2.5%

Appendix A - 2012 Residential and Renewable Marketing Plan

Executive Summary

The Honeywell Market Manager Team has accounted for modifications to 2011 plans that address actions to help promote program participation and awareness. While significant budgetary reductions were made in 2011 to address overhead, staffing, and administrative costs, key actions for 2012 will include:

- Conduct cost-effective lead generation; funnel consumers into the appropriate programs through the NJCEP website; implement "Decision Tree" on website to help guide customers into the appropriate programs.

- Expanded co-op advertising program that promotes contractor and builder participation including direct mail and print templates.

- Support municipalities to drive residential program participation; promote local involvement with key program partners through printed materials; target opportunities with the widest and most relevant audiences.

To support *New Jersey's Clean Energy Program* (NJCEP), the program staff is planning a 2012 marketing and communications program to:

1. Maximize energy savings in the residential sector for new and existing homes.
2. Integrate and cross-promote residential energy efficiency and renewable energy services, as well as C&I services (working with TRC), offered by *New Jersey's Clean Energy Program* and the New Jersey Board of Public Utilities.
3. Increase awareness and participation by New Jersey residents in current and future energy efficiency and renewable energy offerings.
4. Use an integrated communications program that includes broad based customer education and public relations to effectively communicate a "whole house" approach to maximize energy savings.
5. Work with utilities, regional and national agencies; e.g., EPA, DOE, local and national stakeholders, and trade allies, including manufacturers and distributors, to cross-promote and market services where applicable.
6. Expand on successful "testimonials" campaign in advertising and public relations outreach to showcase New Jersey residents and businesses that are benefiting and prospering from *New Jersey's Clean Energy Program.*
7. Help increase workforce development and economic growth opportunities in the energy efficiency and renewable energy industries.

8. Demonstrate the value of *New Jersey's Clean Energy Program* to combat rising energy prices and to help mitigate climate change.

Key Creative and Communications Elements

1. Continue to identify and enlist New Jersey residents that are successfully participating in the programs.
2. Further engage BPU Commissioners to promote *New Jersey's Clean Energy Program*. Promote each of the Commissioners as experts and champions for the different programs by engaging them in events and community opportunities to increase program participation.
3. Revitalize retail stores with *New Jersey's Clean Energy Program* information, positioning the state as a consumer resource for greater savings through energy efficiency and renewable programs.
4. Leverage utility communications with New Jersey residents through newsletters, bill messaging, web linkage, and other community outreach when available.
5. Continue to enhance the web site with relevant content, including success stories and resources that encourage action by New Jersey residents and businesses.
6. Leverage call center activities to increase awareness and participation.

Summary of Scope of Work

Below are the expectations of New Jersey's Board of Public Utilities for the Honeywell Market Manager marketing and communications team to conduct and produce as part of the marketing and communications program.

Marketing/Advertising Campaigns

- Expanded co-op advertising across energy efficiency programs (HVAC, RNC, and HPwES) to include additional media tactics (TV, radio, web) and pre-designed print and direct mail templates for contractor use.
- Include tactics to promote new RNC tier, *ENERGY*Efficient Homes.
- Approval to be provided on Energy Minute Radio campaign.
- Plan development to promote programs served by Honeywell Market Manager team.
- Technical review with Honeywell Market Manager team prior to review and approval by BPU.
- Inclusion of NJCEP and BPU brands in all materials.
- Inclusion of utility-managed *Comfort Partners* program offering as part of a larger message on energy efficiency for low-income residents, incorporating the utilities' approval of proper messaging.

As part of the planning process, specific tactics and deliverables have been forecasted for the 2012 variable marketing budget. Implementation of these materials will be produced in accordance with the BPU to help drive program participation. Details of these plans are broken out by program:

Energy Efficiency

New Jersey ENERGY STAR (RNC)

- Updates to brochures; consumer, contractor
- Summary program detail in updated NJCEP overview piece
- Updating existing fact sheet; if needed
- Create one existing case study/ white paper; as needed
- Updates to existing signage (lawn signs & museum boards; as needed)
- Update/ maintenance of forms (TBD)
- Small variable reserve allocated for program presentation/ event materials
- Small variable reserve allocated for educational workshops
- Minor variable spend allocated for public relations, trade display & equipment maintenance, and awards & photography
- Small reserve allocated in variable budget for contingency/ special requests
- New RNC tier:
  - Contractor brochure
  - Consumer brochure
  - Contractor fact sheet
  - Consumer fact sheet

ENERGY STAR Products

- Web banner
- Updates to brochures/applications
- Summary program detail in updated NJCEP overview piece
- Point of purchase displays
- Minor variable spend allocated for public relations, and trade display & equipment maintenance
- Updates to clothes washer brochure
- Small reserve allocated in variable budget for contingency/ special requests

HVAC

- Web banners (two)
- Updates to brochures; *Cool*Advantage, *Warm*Advantage (home heating and water heating)
- Updates to Warm/ Cool Advantage applications (five total)
- Minor variable spend allocated for public relations, trade display & equipment maintenance, and awards & photography

- Small reserve allocated in variable budget for contingency/ special requests

Home Performance with ENERGY STAR (HPWES)

- Web banner
- Updates to brochures; consumer, contractor, Spanish consumer brochure
- Summary program detail in updated NJCEP overview piece
- Updating two existing fact sheets; if needed
- Creation of one new case study/ white paper
- Minor variable spend allocated for public relations, trade display & equipment maintenance, and awards & photography
- Small reserve allocated in variable budget for contingency/ special requests

Renewables Program

- Ongoing marketing program support and public relations for key milestones, including press release development and announcements
- Maintenance of updates to critical brochures for literature library; minimal print quantities
- Summary program detail in updated NJCEP Overview piece
- Continued maintenance of program detail on Renewables web pages on the NJCEP website

Event Management & Support

The Market Manager team will continue to define and prioritize events in cooperation with the BPU. The continued use of stock presentations including Energy Efficiency and Renewables PowerPoint presentation, as well as corresponding talking points will be updated quarterly for Commissioners and aids to tailor to their specific speaking needs. For 2012, the process for selection will continue to evolve with the BPU based on mutually agreed upon criteria for cost efficiency and the best use of BPU personnel and Market Manager resources.

- Events and media support will be focused on generating program participation
- Focus resources on key agreed upon events
- Select conferences and speaking engagements based on program participation levels
- Partner with BPU staff and program team to ensure event and speaking engagement attendance is in sync with program goals
- Utilization of stock presentations; to be updated quarterly
- Press releases for program specific announcements and updates

- Limited press engagements; eliminating ceremonial events, ribbon cuttings, etc. that do not effectively promote the program
- Reduced media outreach
- All costs related to approved trade shows/events and sponsorships specifically identified in the following table for the 2012 Marketing Plan are included in the fixed marketing budget. (See events summary.)

Media Events

Event Selection and Implementation

- Select opportunities to plan events in conjunction with program managers and BPU to highlight significant program accomplishments.
- Once opportunities are selected and approved by BPU, contact relevant organizations to initiate planning of events.
- Coordinate with BPU to select appropriate Commissioner or BPU representative.
- Develop project background information for Commissioners for speaking engagements, along with briefing memos which include event logistics, such as event agenda, driving directions, project statistics, etc.
- Partner with BPU for media outreach to ensure press coverage of programs, utilizing the Commissioners as an additional hook (BPU will confirm when media outreach for specific events will be conducted by the BPU communications team).
- Attend program press events with Commissioner to ensure coverage of program and assist Commissioner.

Given the continued requests for events anticipated in 2012, the Honeywell Market Manager team will work with the BPU to prioritize events initiated and managed by the team. Suggestions for these events should be presented to the BPU Marketing Administrator and the Marketing/Communications team for evaluation as far in advance as possible.

There are other events or speaking engagements where the BPU is requested to participate, initiated either through a website request or other method. These event requests are evaluated with the Marketing Administrator and Program Coordinator. The Honeywell Market Manager team will also assist and support the BPU for these events with planning, preparation, or execution based on discussion and agreement with BPU at the outset of each event.

Industry Conferences & Trade Ally Events

A defined list of trade shows is outlined in this marketing plan. For those trade shows/events, support may include preparation of program information, media outreach, as well as participation and presence at the event. Before the start of any event, the Honeywell Market Manager team will clarify its deliverables for each event with the agreement and cooperation of the BPU. The Honeywell Market Manager team will assist

the BPU with criteria for selecting newsworthy media and public events that warrant the attendance and participation of Commissioners.

- Support trade ally recruitment events, training meetings, and conferences for Home Performance contractors, HVAC contractors, RNC builders, and solar installers as needed.
- Preparation of applications for industry awards.

Public/ Community Events

Event Reviews (process for when events are proposed to Market Managers/BPU)

- Review audience composition and size, sponsor mission, historical data, logistics, and other criteria to determine whether or not the event will offer a worthwhile opportunity for promoting *New Jersey's Clean Energy Program*.
- Based on the above, determine the level of support that will maximize benefit to the program of the event. Work with team to ensure appropriate coverage and speakers if deemed appropriate; if not direct requestor to the NJCEP website for downloadable program materials.
- Continue to work with the BPU to be selective regarding participation at public events to help use time and personnel resources efficiently to support greater awareness and participation in the programs.

Ongoing Public & Media Relations

- Identify opportunities to promote programs through news media.
- Write press releases, conducting technical review before BPU receives draft copy.
- The BPU will distribute and conduct outreach of press releases.
- Confirm with BPU that media outreach efforts are not duplicated, especially with regard to the Refrigerator/Freezer Recycling Program.
- A final copy of any program-related press release distributed will be provided by the BPU.

Written Materials

- Develop quarterly talking points and briefing memos for specific project events. These will include statistics on specific projects, as well as overall program progress to date.
- Conduct complete technical review before providing to BPU for review.
- Work with Program Coordinator to store all updated program brochures and fact sheets in the program literature section of NJCleanEnergy.com for easy posting and access.

Educational and Promotional Materials

- Create brochures, public service announcements, and fact sheets that contain a larger message on how residents can take steps to be more energy efficient and/or invest in renewable energy.
- Conduct all technical review before providing to BPU.
- Promote usage of NJCEP website and online literature library for printed material requests.

Educational materials are an integral part of the marketing plan. The 2012 plan includes reprints of the overview brochure, which promotes all of the programs. The plan also includes updates and reprints of materials promoting the specific programs.

The Honeywell Market Manager team recommends reinstating the completion of a one-page Project Information Form (PIF) with appropriate BPU staff at the start of each new project. This outline will help define the subject, audience, key messages, tone, goals, call-to-action, media specifications, and timeline to help understand and meet BPU expectations at the outset of each project.

Co-op Advertising Program

The Honeywell Market Manager team plans for an expanded co-op program in 2012. The goal of the expanded co-op program is to promote increased contractor and builder participation across the HPwES, HVAC, and RNC programs. Modifications to the 2012 co-op program include:

- Broadened media parameters to include TV, radio, and web (maintain existing print and direct mail channels).
- Implementation of print and direct mail pre-designed templates.
- Modifications to current contractor participation levels
    - Increasing HPwES cap to $20,000 (maintaining HVAC at $10,000 and RNC at $50,000)
    - Increasing HPwES reimbursement incentive to 40% (all others remain at 25%)
- Set a pool for budget incentives; $500,000 across HPwES, HVAC and RNC.
- Administration and management of co-op advertising for New Jersey ENERGY STAR Homes (RNC), Home Performance with ENERGY STAR, and HVAC programs.
- Processing of co-op advertising incentive applications, based upon eligibility requirements. The payments to the vendors for approved projects will be processed from the program's incentives budgets.
- Assistance to participating contractors and builders with advertising and sales tools.
- Application and participation in EPA's co-op advertising program.

Digital Communications

The NJCEP website will be utilized as the core medium for promoting program information and updates. The site's program literature library will continue to be used as a central repository for updated and printable materials.

- Utilize new web banners to promote consumer interest for program specific promotions and changes.
- Updating program information and trade ally database.
- Creating web enhancements for greater consumer ease and navigation.
- Participating in web strategy development and enhancements as part of ongoing web meetings with BPU and program coordinator as needed.
- Use of external sources for web enhancements, including web consultants, web designers, web programmers, web production, as well as paid market research and search optimization consultants may be submitted as variable expenses, based on prior written approval by BPU Marketing Administrator.
- Copy development and organization of respective sections of the website. This includes input and support for direction and content of the site.
- Provide newsletter content as needed.
- Maintenance of program Frequently Asked Questions.

Development of Retail Point-of-Purchase and Sales/Educational Materials

- Production of retailer educational materials and in-store point-of-purchase materials for *ENERGY STAR Products*, HVAC, Home Performance, *New Jersey ENERGY STAR Homes*. Includes incentive information, rebate applications, store signage, qualifying products list, educational brochures, and fact sheets.
- Support 2012 roll out of program enhancements and modifications with materials as needed.

Market Manager Meetings

- Hosting and preparation of weekly Marketing status calls.
- Meetings as needed with Market Manager program staff to support program marketing needs.
- Call center communications and support.
- Internal traffic meetings to review work plan and deliverables.
- Attendance in person or by phone of monthly Marketing and Communications, Energy Efficiency, and Renewably Energy committee meetings.
- Coordination with utilities on joint promotions; i.e., New Jersey Natural Gas and *Home Performance with ENERGY STAR*.
- Attendance at additional meetings as needed.

Reporting

- Monthly billing, budget, and activity reporting
- Work with program managers to provide response to requests for program statistics or inquiries
- Annual recap books of all marketing materials produced
- Work with call center and web team to assess results of promotional campaigns

Marketing Plan Development and Management

The Honeywell Market Manager team will work with the BPU to develop an annual tactical marketing plan and calendar. This will provide an opportunity for the BPU to help plan a year-long schedule with appropriate themes and messaging to help leverage all communications activities.

- Strategic planning and development of annual program marketing plans and filings
- Preparation of annual program marketing and contract modification budgets

A separate media plan detailing tactics for the Refrigerator-Freezer Recycling Program (ENERGY STAR Products) will be developed and shared with the Marketing Administrator and Program Coordinator prior to implementation. All marketing tactics for this program are funded directly through the program budget based on marketing allowable per unit collected and program goals.

Utility Coordination

The Honeywell Market Manager team will make every effort to coordinate with new program pilots or launches by New Jersey's electric and gas utilities. Similarly, the team will also work with relevant organizations to maximize any incoming SEP or ARRA funding.

Account Management

- Program Marketing Management and Oversight
- Communication with BPU/PC/utilities/other agencies via meetings or conference calls
- Financial administration
- Reporting
- General office administration
- Office space expenses, including phones, computers, fax, copying, etc.
- Office supplies, including program stationery, forms, envelopes, etc.
- Program apparel
- Preparation and submission of award nominations, including materials, copying, and mailing costs.
- Postage for regular business operations
- Travel

Call Center

- Call center briefings on marketing initiatives, including FAQs, current campaign information, and training as required.
- The call center provides an important link between potential program participants and the Market Manager team. Providing information about program requirements, the call center acts as a clearinghouse for program literature and an important point of entry to *New Jersey's Clean Energy Program.*
- Customers calling Monday through Friday from 9:00 AM to 7:00 PM will be handled by customer service representatives.

Creative Services

- Creative development of all marketing materials and program identity pieces, including but not limited to program stationery, labels, easel backs, POP displays, forms, case studies, testimonials, customer or trade ally materials, fact sheets, direct mail, brochures, promotional materials, event signage, lawn signs, trade show booths, banners, and banner stands.

- Administration of co-op marketing program, including management of guidelines, approval of submissions, and monitoring of contractor adherence to co-op guidelines.

Variable Costs

The variable marketing budget is intended to cover out-of-pocket costs that vary directly with the program goals and marketing production needs. There will be no markup on variable marketing expenses. All expenses will be approved by the BPU Marketing Administrator prior to project commencement. Examples of appropriate variable marketing expenses include:

- Overnight delivery costs or other delivery costs. These extra costs will be utilized prudently and when necessary.
- Actual printing or production costs for marketing materials, including trade show displays, banners, signage, bill inserts, applications, brochures, forms, and any printed materials supporting the programs.
- Other production expenses, such as video production, photography, both from stock/subscription sites and specific sites/subjects, when such services are provided by external consultant or production company.
- Direct mail campaigns, if utilized; including list purchase, postage, mail-house costs, and printing.
- Public relations expenses.
- Event expenses, such as onsite photographer, special equipment rental/purchase, such as microphones, tents, podiums, tables, chairs, easels, and sound systems, may be submitted under variable
- Website projects.

Events Summary

The following organizations sponsor trade shows and/or monthly meetings that the Market Manager expects to support in 2012 with all costs covered within the fixed marketing budget. Events of equivalent cost and scope may be supported in exchange or in place of any of these events.

Event	Sponsor	Program(s)
Governor's Conference on Housing and Development	Governor, NJHMFA, NJDCA	RNC
New Jersey League of Municipalities	NJLM	RE
Atlantic Builders Convention	Atlantic Builders Convention	RNC
AEA Utility Management Conference	AEA (Association of Environmental Authorities)	All
NJ Association of Counties	NJAC	RE
Association of New Jersey Environmental Commission	ANJEC	All
New Jersey Conference of Mayors	New Jersey Conference of Mayors	All

Appendix B – 2012 Residential Energy Efficiency and Renewable Programs Budgets

Table 1: 2012 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
CORE	$4,150,000.00	$0.00	$0.00	$0.00	$4,150,000.00	$0.00	$0.00	$0.00
REIP	$24,233,390.05	$1,378,366.92	$0.00	$0.00	$21,428,390.05	$1,426,633.08	$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	$28,383,390.05	$1,378,366.92	$0.00	$0.00	$25,578,390.05	$1,426,633.08	$0.00	$0.00

Table 2: 2012 Residential Efficiency 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
Residential HVAC - Electric & Gas	$23,178,518.81	$1,306,764.00	$0.00	$590,003.00	$19,377,257.26	$1,904,494.55	$0.00	$0.00
Residential New Construction	$16,320,061.50	$1,249,392.00	$0.00	$0.00	$14,365,489.32	$535,245.20	$0.00	$169,934.98
Energy Efficient Products	$20,275,407.84	$1,765,757.84	$0.00	$0.00	$18,007,000.00	$502,650.00	$0.00	$0.00
Home Performance with Energy Star	$32,386,412.49	$1,044,421.08	$0.00	$0.00	$29,139,510.63	$2,202,480.78	$0.00	$0.00
Marketing	$1,651,383.84	$0.00	$1,651,383.84	$0.00	$0.00	$0.00	$0.00	$0.00
Sub Total Residential Programs	$93,811,784.48	$5,366,334.92	$1,651,383.84	$590,003.00	$80,889,257.21	$5,144,870.53	$0.00	$169,934.98

Appendix C – Energy Savings Table

All Programs	Measures	280,971	632,515		1,942,061	1,244,300
Energy Efficient Products	*5,384,700*	268,895	36,788		1,739,597	73,575
Residential New Construction	*5,956*	3,872	218,659		77,435	437,318
Heating, Ventilation and Air Conditioning	*42,335*	6,383	282,139		88,591	543,548
Home Performance with ENERGY STAR	*5,350*	1,822	94,930		36,438	189,859

Total 2012 NJCEP Energy Efficiency:	Annual kWh	Annual Therms	Measure Lives	Lifetime MWh Saved	Lifetime MMBtu Saved
Total 2012 NJCEP Energy Efficiency **at use**				1,942,061	1,244,300
T&D Loss adjustment factor				1.11	1.00
Net to Gross Ratios				1.00	1.00
Total Adjustments				1.11	1.00
Total 2012 NJCEP Energy Efficiency **at Gen.**				**2,155,688**	**1,244,300**

Efficiency Savings By Program and Category		Participants	Energy Efficiency Units	Annual MWh	Annual DTh	Measure Lifetimes	Lifetime MWh	Lifetime DTh
Energy Efficient Products	2012 EE Lighting CFL markdowns (Std & Spclty)	2,150,000	5,000,000	205,000	0	6.4	1,312,000	0
	2012 EE Lighting Fixture & SSL markdowns	50,000	50,000	2,200	0	6.4	14,080	0
	Creative (Lighting)	162,500	200,000	8,200	0	8	65,600	0
	Advanced Power Strips	10,000	10,000	1,028	0	4	4,112	0
	Clotheswasher Tier 2 (MEF 2.2)	22,500	22,500	2,880	20,250	20	57,600	40,500
	TOTAL Rebated Retail Measures	*2,395,000*	*5,282,500*	219,308	20,250		1,453,392	40,500
	Refrigerator/Freezer Early Retirement Program	20,000	20,000	19,000	0	4	76,000	0
	Other Upstream Incentives - Clothes Washers	15,000	15,000	1,920	13,500	20	38,400	27,000
	Other Upstream Incentives - HP Dryers	200	200	92	0	12	1,109	0
	Other Upstream Incentives - CEE Tier 2 Refrigerators	1,700	2,000	262	0	10	2,620	0
	Energy Efficient Set-Top Box (ENERGY STAR TIER 1&2)	65,000	65,000	6,110	0	4	24,440	0
	TOTAL New Programs and Pilots	*101,900*	*102,200*	27,384	13,500		142,569	27,000
	Contingency Savings			22,202	3,038		143,636	6,075
	Total	**2,496,900**	**5,384,700**	**268,895**	**36,788**		**1,739,597**	**73,575**
Residential New Construction				**MWh**	**DTh**		**MWh**	**DTh**
	Tier 1 (ENERGY Advantage) Committed in 2011			0	0	20	0	0
	Tier 2 ENERGY STAR v3.0 Committed through 2011	1,750	1,750	1,054	60,550	20	21,070	121,100
	Tier 3 CCH Committed in 2011	46	46	70	2,719	20	1,405	5,437
	2011 Commitments (carried forward)	*1,796*	*1,796*	1,124	63,269		22,475	126,537
	Tier 1 Energy Advantage Committed in 2012	2,496	2,496	1,503	86,362	20	30,052	172,723
	Tier 2 ENERGY STAR v3.0 Committed in 2012	1,581	1,581	952	54,696	20	19,033	109,391
	Tier 3 CCH Committed in 2012	83	83	127	4,917	20	2,541	9,834
	2012 Enrollments/Commitments	*4,160*	*4,160*	2,581	145,974		51,626	291,949
	Contingency Savings			167	9,416		3,335	18,832
	Total	**5,956**	**5,956**	**3,872**	**218,659**		**77,435**	**437,318**
Heating, Ventilation and Air Conditioning	2012 and 2011 Carryover			**MWh**	**DTh**		**MWh**	**DTh**
	A/C SEER 16 (with proper sizing)	13,975	13,975	3,635	0	15	54,531	0
	ASPH 16 (with proper sizing)	1,010	1,010	676	0	15	10,140	0
	GSHP ENERGY STAR	25	25	47	0	30	1,406	0
	Solar Domestic Hot Water for Electric Applications	50	50	123	0	10	1,225	0
	Electric Applications	*15,060*	*15,060*	4,481	0		67,302	0
	Gas Furnace: 92% AFUE	2,650	2,650	0	40,545	20	0	81,090
	Gas Furnace: 92% AFUE w ECM	2,000	2,000	0	20,400	20	8	40,800
	Gas Furnace: 95% AFUE and 2% ECM (New E*)	15,000	15,000	0	172,500	20	8	345,000
	Boiler: 85% AFUE	2,400	2,400	0	5,760	20	0	11,520
	Water Heater: 0.82 EF w/90% condensing or 90% TE w/sealed combustion	2,650	2,650	0	14,310	10	0	14,310
	Solar Domestic Hot Water for Gas Applications	50	50	0	850	10	0	850
	Gas Applications	*24,700*	*24,700*	1	253,515		16	492,720
	Upstream equip incentives (electric - HPWH)	500	500	1,331	0	10	13,310	0
	Upstream equip incentives (electric - CAC)	300	300	43	0	15	648	0
	Upstream incentives (gas)	1,500	1,500	0	3,900	10	0	3,900
	Pilot new measures (DWHR)	100	100	0	413	25	0	1,033
	Pilot new measures (boiler controls)	175	175	0	1,015	10	0	1,015
	Other	*2,575*	*2,575*	1,374	5,328		13,958	5,948
	Contingency Savings			527	23,296		7,315	44,880
	Total	**42,335**	**42,335**	**6,383**	**282,139**		**88,591**	**543,548**
Home Performance with ENERGY STAR	2012 and 2011 carryover			**MWh**	**DTh**		**MWh**	**DTh**
	Tier 2: Air sealing/duct sealing	1,220	1,220	305	20,740	20	6,100	41,480
	Tier 2: Multi-family	420	420	74	3,570	20	1,470	7,140
	Tier 3: Insulation, HVAC, DHW, other eligible measures	3,230	3,230	1,131	54,910	20	22,610	109,820
	Tier 3: Multi-family	480	480	168	8,160	20	3,360	16,320
	Contingency Savings			145	7,550		2,898	15,099
	Total	**5,350**	**5,350**	**1,822**	**94,930**		**36,438**	**189,859**

Total Emissions Savings (lbs reduction)			Annual Lbs Reduction Electric	Annual Lbs Reduction Gas		Lifetime Lbs Reduction Electric	Lifetime Lbs Reduction Gas
	CO2 (Carbon Dioxide)		427,076	7,400,425		2,951,933,113	227,221,167
	NOx (Nitric Oxide)		787	5,819		5,437,772	178,670
	SO2 (Sulphur Dioxide)		1,826			12,623,398	
	Hg (Mercury		0			69	

Total Program Savings	Participants	Energy Efficiency Units	MWh	DTh	*lifetime*	MWh	DTh
	2,550,541	5,438,341	280,971	632,515		1,942,061	1,244,300