New Jersey's Clean Energy Program™

Honeywell's Residential Energy Efficiency and Renewable Energy Program Plan Filing for 2009

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Honeywell's Residential Energy Efficiency and Renewable Energy Program Plan for 2009

Introduction

This Program Plan provides program descriptions, marketing plans, goals, budgets and performance criteria for the five residential energy efficiency and two renewable energy programs to be managed and/or supported by Honeywell in 2009:

Residential Energy Efficiency Programs

- Residential New Construction (New Jersey ENERGY STAR® Homes)
- Residential HVAC (Cool and Warm Advantage)
- Energy Efficient Products
- Existing Homes Program (Home Performance with ENERGY STAR®)
- Clean Energy Community Partners

Renewable Energy Programs

- Renewable Energy Program (REP)
- NJ **Clean**Power Choice℠

In regards to the residential energy efficiency programs, the:

- New Construction, HVAC, Energy Efficient Products and Existing Homes programs are continuations of existing initiatives Honeywell began managing in 2007, though often with substantial proposed changes; and
- The Clean Energy Community Partners program is new for 2009 and strives to facilitate the enrollment of communities, as a whole, into the energy efficiency and renewable energy programs offered by New Jersey's Clean Energy Program.

With respect to the renewable energy programs, the:

- 2009 Renewable Energy Program ("REP") restructures the Customer Onsite Renewable Energy (CORE) program, consolidating it with the SREC-only Pilot, and REC Facilitation programs. REP also adds services to accelerate development of wind and biopower projects in New Jersey; and
- **Clean**Power Choice Program[SM] will continue to provide an option for all New Jersey ratepayers to participate voluntarily in the growing renewable energy market.

The following Program Plans begin with narrative descriptions of each program, including the overall strategy, key activities for the year and 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.

In many cases, we propose substantial changes and/or additions to programs or program portfolios to better enable New Jersey to get on a path to achieving the aggressive clean energy goals established and presented in the draft Energy Master Plan. However, the schedule for the implementation of many of these changes and additions is dependent upon the approval of the proposed contract modifications that allow us to support new initiatives. In addition, we must also to take into account the need to provide adequate notification to program contractors and other allies. Thus, for several of the programs we expect at least elements of the current 2008 program designs to remain in effect for some portion of the first part of 2009. Details on 2008 to 2009 transitions are provided in each program narrative.

Several iterations of our thinking on new directions were presented to key stakeholders at public meetings held from June through September . Based on review of the comments received and input from the Office of Clean Energy, many of the comments are incorporated into the program descriptions.

Following the program descriptions are a series of Appendices. **Appendix A** represents the 2009 residential energy efficiency and renewable energy marketing plans. **Appendix B** is a summary of total 2009 program costs, broken down by cost category. **Appendix C** presents our proposed performance incentive mechanism and summarizes specific goals and the incentive dollars that would be attached to those goals for calendar year 2009. These "performance incentive goals" are a subset of the program goals identified in the individual program narratives. They also include sector level goals that are not tied to any individual program.

It is important to note that all of the various components of this filing are intimately linked. For example, goals presented in Appendix C are appropriate only if the program design changes captured in the program narratives, marketing strategies outlined in Appendix A, and budgets presented in Appendix B are approved. In addition, most of the goals in Appendix C presume that contract modifications necessary for Honeywell to

implement program changes are in place in early January 2008. If they are not in place in early January 2008, several goals will need to be revised downward.

2009 Residential New Construction Program

"New Jersey ENERGY STAR® Homes"

Description

The Residential New Construction Program is designed to 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". In the mid-term, the Program supports the transition to a residential new construction energy code that is at least equivalent to the current EPA ENERGY STAR Homes standard. New home energy performance under the code would be verified through a market-based energy rating infrastructure. For 2008, the approved program plan included a new, tiered structure with reduced incentives. However, this change could not be introduced due to delays in approval of associated contract modifications. The dramatic reduction in new residential construction in New Jersey in 2008, and the continued depressed market projected for the next year, strongly suggests that 2009 will not be a good time to implement reduced incentives. Therefore, the 2009 program will introduce the new tiered structure, but will maintain the 2008 incentives levels for Tier 1 and increase incentives for Tier 2. Once the market revives, the program will reduce builder incentives (by lowering direct rebates and shifting elements of the verification cost to builders) while continuing to grow program participation (market share) and per-home savings through an increased emphasis on marketing.

There are a number of market barriers to efficiency investments in new construction in New Jersey. Key among these are: (1) split incentives (i.e. builders who make design and procurement decisions will not pay the homeowner operating costs associated with those decisions); (2) lack of information regarding the benefits of efficiency and environmental performance on the part of consumers, builders, lenders, appraisers, realtors and others; (3) limited technical skills on the part of some of the builders and their subcontractors to address key elements of efficiency; and (4) 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 for homes that meet program standards.
- Marketing assistance to builders to promote the energy and environmental benefits of NJ ENERGY STAR Homes participating projects.
- A comprehensive consumer marketing campaign designed to drive homebuyer demand for NJ ENERGY STAR Homes as direct incentives to builders are reduced.
- Technical assistance to builders and their subcontractors on energy efficient construction and installation practices.
- Verification (inspections and testing) and program certification of qualified

homes.

- Technical support/training on residential energy code updates and implementation.

Target Market and Eligibility

Single family, multi-single ("townhome") and low/mid-rise multi-family buildings (up to 6 floors) are fully eligible for program benefits if:

1) The home uses natural gas and/or electricity supplied by a New Jersey public utility; and
2) Each unit has its own gas or electric heating system and/or central air conditioning system.

In order to ensure a single statewide technical standard and statewide brand for energy efficiency (under New Jersey's Clean Energy Program™), the program will offer free certification services (including a limited number of verification inspections) for any new home or 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 order not to promote the design and construction of larger homes that inherently use more energy, homes that are over 4000 square feet of finished floor area will be required to meet Tier 2 performance criteria (see definitions below) in order to qualify for direct incentives and marketing support, even when located in a qualifying Smart Growth location.

New homes are not eligible for participation or incentives under the Residential Gas and Electric HVAC program (Cool Advantage/Warm Advantage). HVAC contractors serving homes participating in the Residential New Construction Program may participate in the HVAC Program's Quality Installation and Verification (QIV) pilot when available in 2009, which provides technical assistance and incentives for correctly installing and testing central cooling equipment in order to optimize efficiency.

Offerings and Customer Incentives

To meet the Tier 1 level, a new home must:

1. Meet either the EPA ENERGY STAR Homes performance standard (currently a HERS index of 85 or lower in NJ) or the alternative prescriptive EPA National Builder Option Package (climate zone specific "BOP"). Multifamily buildings over 3 floors and up to 6 floors[1] may be required to demonstrate compliance through the newly expanded EPA ENERGY STAR for High-Rise Multifamily Buildings pilot (buildings over 6 floors may participate in this pilot through the C&I Smart Start Buildings program);
2. Comply with the EPA Thermal Bypass Inspection Checklist, as applicable;
3. Comply with EPA's mandatory additional requirements (including proper HVAC sizing and duct leakage limits), as applicable;
4. Install ENERGY STAR qualified HVAC equipment (or highest available alternative);
5. Fully duct all HVAC supplies and returns and fully seal all duct system joints and seams with mastic compound (no tapes), as applicable;
6. Install ENERGY STAR qualified mechanical ventilation with automatic 24-hour control; and
7. Install at least 3 ENERGY STAR labeled hard-wired light fixtures and/or ENERGY STAR labeled screw-based CFL bulbs in at least 50% of all light fixtures (including exterior fixtures).
8. Install only direct or power vented space heating, water heating, and/or fireplace combustion appliances, when present.

To meet the Tier 2 level, a home must:

1. Meet all of the Tier 1 requirements, and
2. Achieve an energy rating HERS index of 65 or less (approximately equivalent to the federal tax credit efficiency level) or equivalent High-Rise Multifamily Pilot performance.

A limited number of Tier 3 "NJ Microload Home" projects will be approved in 2009 based on program development work initiated in 2008 in coordination with the New Jersey Institute of Technology.

[1] At least 50% of the occupied space and building energy use must be residential. The building must include 4-6 above-grade occupiable stories. Any occupiable space, including commercial space, should be counted toward the number of stories except garages, basements, or cellars. A partial story should be counted if 20% or more of the space is occupiable. This definition is consistent with the "LEED for Homes Pilot for Mid-Rise Multifamily Buildings Program Guidelines, Version 1.1"

Table 1: 2009 Financial ("Direct") Builder Incentives per Unit[2]

Building Type	2009 Tier 1 (≤ 4000 sq.ft).	2009 Tier 2	2009 Tier 3[3]
Single Family	$500 + $0.60/sq.ft.+ HVAC Incentives	$3,300	Custom (est. avg. $17,500)
Multiple Single Family ("Townhouse")	$150 + $0.60/sq.ft. + HVAC Incentives	$2,200	
Multiple-Family Building ("Multifamily")	$0.60/sq.ft. + HVAC Incentives	$1,500	

In order to maximize electric efficiency savings, the program will provide builders with the option of receiving incentives equal to the full cost of an approved list of screw-in Compact Fluorescent Lamps (CFLs). These approved CFLs will be made available through a new builder portal of the NJECP online program store. Builders will order approved CFLs for installation in high use light sockets of participating homes (specific minimum and maximum limits may apply).

This option is being offered as a limited pilot in 2009. Homes enrolled in the program in 2008 or earlier, but completed in 2009, may also participate in this pilot. Participation in this pilot will meet the program's energy efficient lighting requirement. Builders may still opt to meet the program lighting requirement by installing at least three ENERGY STAR qualified light fixtures, but fixtures will no longer be eligible for incentives through the RNC program. ENERGY STAR qualified light fixtures may be purchased through the NJCEP online program store at significantly reduced prices.

[2] Homes over 4000 square feet of finished floor area are required to meet Tier 2 performance criteria in order to qualify for direct incentives and marketing support; If no ENERGY STAR rated HVAC equipment is available for the specific configuration, proposed equipment specifications must be submitted for approval (generally highest available alternative); For each inspection type, re-inspection costs beyond those associated with an initial re-inspection are deducted from the rebate.

[3] Tier 2&3 incentives are supplemental to available Federal Energy Tax Credits, if applicable.

Table 2: 2009 Lighting, HVAC and Appliance Incentives

Additional Incentives	All 2009 Tiers
ENERGY STAR Lighting	All installed CFLs purchased through the builder portal of the NJECP online program store will be rebated on a pilot basis (specific minimum and maximum limits may apply)
ENERGY STAR Appliances[4]	N/A

In order to maximize savings potential, participation in both the CFL lighting offer and the QIV protocol will be available on a pilot basis to all homes completed in 2009, regardless of enrollment date.

A cooperative marketing offer for participating builders will drive homebuyer demand for qualifying homes, and act as an indirect incentive to help offset the reduction in direct rebates to builders. This co-op marketing offer will supplement a Residential New Construction component within the overall marketing campaign of New Jersey's **Clean Energy** Program™, in order to further raise consumer demand. An aggressive consumer focused marketing campaign will be essential to the program's ability to maintain builder participation (and therefore market share) at the same time as incentives are reduced and requirements are increased.

Note that the Tier 2 incentive level is intended to complement the Federal Energy Tax Credit for new home construction (currently $2,000) in order to encourage participation at this advanced level (in 2008, fewer than 1% of new homes in New Jersey met this level of performance).

The incentives identified above may be modified with the approval of the New Jersey Board of Public Utilities.

New program requirements, procedures and/or incentives will take effect 60 days from written notification to program participants (i.e. builders, developers, etc.). Any completed application received after the 60 day notification period will be subject to new program rules.

Planned Program Implementation Activities for 2009

The following program implementation activities will be undertaken in 2009:

- Train builders, developers, trade subcontractors, design professionals and real estate and code enforcement personnel on program requirements and benefits.
- Continue to expand the number of projects participating in verification inspection sampling.

[4] Builders will be encouraged to take advantage of any rebates available for retail purchases through the Energy Star Products program.

- Design, develop and take the steps necessary to transition to an open market for Home Energy Ratings of residential new construction beginning in January, 2010. Preparations in 2009 for this transition will require the development and implementation of a quality control and oversight process in order to qualify, manage and monitor multiple independent verification providers, as well as changes to program design and incentives commensurate with any new code increment.

  Market conditions and/or changes in code promulgated in late 2008 or in 2009 may not impact construction of program homes until 2010. For example, regarding code change:

  a) After relevant legislation is passed, DCA must complete a process that includes development of the code update, public comment and final promulgation;

  b) Once promulgated by DCA, code changes only take effect for new permits. Because of the typical lag time between permitting and the start of construction, no program units that enroll under the new code are expected to be completed in 2009.

- Modify Tier 1 and Tier 2 standards, incentives, marketing and other program design elements in preparation for the introduction of any new state energy code promulgated during the 2009 program year. Promote participation at the Tier 2 ("Tax Credit") and Tier 3 "Microload Pilot" program levels and develop a plan for a "next generation" RNC program based on this type of advanced performance approach. Revisions will be designed to reflect changes in code, incremental costs, market barriers, and other relevant market factors, climate change impacts and goals. The start date(s) for new incentives, marketing strategies and/or approaches to service delivery will be such that there is sufficient time to conduct analysis of needed changes, get input from the industry, provide notice of changes to industry, maintain high standards for quality of program services, and to pilot the introduction of changes, as appropriate.

- Work with DCA and OCE to provide technical assistance on the code update process.

- Expand participation in the U.S. Environmental Protection Agency's ENERGY STAR for Multifamily Buildings (new construction) pilot for eligible buildings over three floors (based on the ASHRAE 90.1 modeling methodology rather than the Home Energy Rating System), with corresponding adjustments to qualification criteria and implementation services (project review and verification).

Research and Development

The NJ Energy Master Plan has established ambitious goals for energy efficiency. Currently available efficiency measures, and the initiatives that deliver them, will not be able to achieve these goals. The Program will pursue the development of new technologies and approaches that will become regular Program offerings in the future**.** Areas for research in residential new construction may include the performance metering of program homes and optimized new home designs for significant reduction or elimination of cooling energy requirements.

Creative Initiatives

Starting in 2009, the Program will consider opportunities to solicit creative proposals for pilot-scale promotions associated with the development of the Micro-load home Tier.

This pilot will solicit competitive proposals from builders interested in building micro-load homes (i.e. very low HERS scores with renewable energy systems), select up to a half dozen participants, and use the construction process and completed homes as an opportunity to showcase the potential for these very low-energy homes that many builders and buyers currently consider too futuristic. Regular media stories, project documentation for future publicity, press events and ribbon-cutting events will all demonstrate the viability of this next generation of homes. Energy consumption meters and monitoring will be built into these homes to enable future tracking of actual performance.

Quality Control Provisions

The RNC program utilizes both on-site inspections and in-house technical review to ensure that the homes participating in the program meet all program requirements. Quality control in the field includes, at a minimum, a mandatory pre-drywall inspection and a final inspection with testing (unless participating in an approved final inspection sampling protocol). Re-inspections and additional mid-construction inspections are performed when necessary based on initial results. The final inspection, when completed, includes testing with blower door and "Duct Blaster™" equipment, among other procedures.

In-house technical review occurs at both the front and back ends of the process. Builder plans are analyzed as proposed prior to construction to determine upgrades necessary to meet the EPA performance or prescriptive (BOP) compliance path as well as New Jersey program specific requirements. Final results are analyzed after construction based on final inspection and testing to confirm qualification for certification.

In anticipation of moving to a market-based HERS delivery infrastructure, development of a quality control and oversight process will be initiated in order to manage and monitor multiple independent verification providers.

Budget

A detailed budget for this program for 2009 is attached in Appendix B.

Only the projected direct incentive costs for units expected to be built in the current year (2009), as well as the projected value of direct incentives for homes committed prior to the end of the current year that will not be completed until subsequent year(s), are included for the duration of their enrollment prior to expiration.

Goals and Energy Savings

Goals

Performance incentives will be associated with two program goals for 2009:

- 27 percent of the total New Jersey permits issued 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) will be for projects that have committed to build to the NJ ENERGY STAR Homes program standard within two years of enrollment.
- 28 percent of total New Jersey Certificates of Occupancy for qualifying residential new construction types (single family, townhouse and multi-family) will be for projects that have been certified to the NJ ENERGY STAR Homes program standard in the current year.

Details on these goals can be found in Appendix C. Additional program goals are as follows:

- Train at least 150 builders, subcontractors, architects and/or other key trade allies on program elements and aspects that will improve the energy efficiency, performance and sales of homes they design and build.

Energy Savings

Energy savings will be calculated consistent with the latest Board approved protocols. Savings estimated for this program are included in residential sector savings goals shown in Appendix C.

2009 Residential Gas & Electric HVAC Program

"New Jersey Warm Advantage & Cool Advantage"

Description

The New Jersey Residential Gas & Electric HVAC Program promotes the purchase of efficient home heating, cooling and water heating equipment, and the quality installation of such equipment. Its long-term goal is to make the high 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 overcome several market barriers to achieve its goals:

> (1) Consumers inability to differentiate, and therefore value, the difference between good and poor quality HVAC installation;
>
> (2) Consumers lack of information on the benefits (both energy and non-energy) of efficient equipment and quality installations;
>
> (3) Lack of training for HVAC contractors on key installation issues and approaches to "selling" energy efficiency, and;
>
> (4) Split incentives (between builders and homebuyers and between owners and renters).

The program employs several key strategies to address these barriers:

- Financial incentives for the purchase of ENERGY STAR-qualified gas heating equipment and energy-efficient water heaters;
- Financial incentives for the purchase of high efficiency electric HVAC heating & cooling equipment;
- Financial incentives for the installation of solar domestic water heating systems;
- Financial incentives and program support for the accurate analysis of building cooling and heating loads, the proper sizing and selection of cooling and heating equipment according to established industry standards;
- Financial incentives and program support for quality cooling equipment installation that confirms appropriate system refrigerant charging and air flow across the interior coil at time of installation;
- Financial incentives and program support for quality heating equipment installation that optimizes operating efficiency at time of installation;
- Outreach and education for 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;
- Promotion of HVAC technician certification through NATE certification testing.

The New Jersey Clean Energy Program will continue to support efforts, where technically and economically justifiable, to upgrade federal appliance efficiency standards and state building codes. This includes participation in regional and national efforts coordinated by organizations such as NEEP and CEE, and also includes submitting letters in support of efficiency standards and building codes. 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, 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 heat pumps. Warm Advantage promotes energy efficient natural gas-fired furnaces, boilers and water heaters for use in residential buildings. Starting in 2009 Warm Advantage will also pilot incentives for the purchase and installation of solar domestic water heating systems for electric water heating customers.

Incentives are available for the installation of qualified HVAC equipment in all existing residential homes (retrofit). Starting in 2009, builders of new homes are not eligible for participation in the Cool or Warm Advantage. There will be a special outreach to builders who have participated in the program in the past to recruit them into the ENERGY STAR homes new construction program.

Offerings and Customer Incentives

Cool Advantage

This proposal offers incentives similar to those offered under the 2008 program Cool Advantage program. Starting in 2009, Cool Advantage will offer incentives for correct sizing, and efficient equipment, as well as Quality Installation Verification incentives for participants in the QIV pilot.

There will be two types of incentives for installations of energy efficient, new central air conditioning or heat pump equipment. The first is incentives for the installation of equipment with high efficiency ratings (i.e. SEER, EER and – in the case of air source heat pumps – HSPF). The second is incentives for documentation of proper refrigerant charge and airflow across the indoor coil through a program-approved, third-party quality installation verification (QIV) system.

All applications for incentives for conventional, central CAC systems (not ductless mini-splits) require documentation of proper sizing[5] as a prerequisite. Specifically, all applications must include both inputs and outputs of a cooling load calculation performed using an ACCA accredited software package compliant with Manual J and an equipment selection calculation compliant with ACCA manual S.[6] These new parameters constitute a strengthening of the prior correct sizing requirement.

Participants may choose to apply for the SEER incentive, or for both the SEER and QIV incentives. For example, efficient equipment rebates will be provided for SEER 14.5 central air conditioners that are properly sized, but have not gone through a QIV system ($100 to consumer for the efficient equipment plus $100 to contractor for proper sizing). Additional QIV incentives will be provided for SEER 14.5 or greater central air conditioners or heat pumps that have been properly sized and gone through QIV for charge and airflow ($100 to consumer for the efficient equipment plus $100 to contractor for proper sizing, plus $250 to the contractor for QIV). A maximum incentive of $500 will be paid for SEER 15 central air conditioners and heat pumps that are proper sized and have gone through QIV ($150 to the customer for the equipment, $100 to the contractor for proper sizing plus $250 to the contractor for QIV).

This incentive structure is summarized in Table 1 below. Note that ductless mini-split (DMS) systems are eligible to participate under the same requirements as central air conditioners or heat pumps, except as noted below. For equipment incentive purposes, eligible, ENERGY STAR qualified, ground source heat pumps (GSHP) will be treated as Tier 2 equipment (i.e. analogous to SEER 15, EER 12.5, HSPF 8.5). GSHP systems must be ENERGY STAR qualified to be eligible for incentives.

Table 1: *Cool Advantage* Central A/C and Heat Pump Incentives

Requirement	Qualifying Level	Documentation	Incentive Amount
Efficient Equipment 1 (must also meet correct sizing requirement except DMS)	Compressor and coil combination that yield >= SEER 14.5 and EER 12 or (in the case of heat pumps) HSPF 8.5	Confirmation of Compressor/ coil combination rating from CEE-ARI directory	$100 (to customer) $100 (to contractor)
Efficient Equipment 2 (must also meet correct sizing requirement except DMS)	Compressor and coil combination that yield >= SEER 15 and EER 12.5 and (in the case of heat pumps) HSPF 8.5	Confirmation of Compressor/ coil combination rating from CEE-ARI directory	$150 (to customer) $100 (to contractor)
Quality Installation Verification (must also meet correct sizing requirement except DMS)	Correct refrigerant charge and Airflow	QIV record indicating acceptable charge & air-flow, or equivalent as determined by program management.	$250 (to contractor)

[5] This requirement does not apply to ductless mini-split systems in 2009 while additional data on field experience are gathered.

[6] In recognition that the enhanced sizing requirements may require many contractors to change load calculation software, the program will work to reduce the cost of new software and training.

Contractors will qualify for EITHER level 1 or 2 depending upon the efficiency of the equipment they install. The QIV incentive is added on to the relevant equipment incentive. For a properly sized, SEER 15 CAC system with QIV the contractor would receive $350 and the customer would receive $150, or a total of $500.

In 2009 all homes with electric central air conditioning or heat pumps will be eligible to participate in a pilot equipment maintenance initiative designed to optimize the operating efficiency of existing (often older) central air conditioners and heat pumps. Field studies have shown that the typical new residential air conditioner or heat pump has either an improper refrigerant charge, has improper air flow across the indoor coil, or both. Although many HVAC contractors offer annual maintenance services, these services usually only check that the system is operating and that the coil and filter are clean and do not attempt to correct installation errors. The 2009 HVAC maintenance initiative will offer homeowners who have existing, operating central air conditioners or heat pumps the same kind of field diagnostics for charge and airflow described under the QIV discussion above, as well as corrections to any problems discovered.

Table 2: *Cool Advantage* Existing Central A/C and Heat Pump Maintenance Pilot

Requirement	Documentation	Incentive Amount
Corrected refrigerant charge and air-flow	Completed QIV record indicating both initial and corrected charge and air-flow, downloaded tool specific records showing both initial and corrected charge and air-flow, or equivalent as determined by program management.	$250

Warm Advantage

The Warm Advantage program promotes gas heating equipment meeting the ENERGY STAR efficiency standard (i.e., minimum AFUE of 90% for furnaces and 85% for boilers). Beginning in 2008 the program offered incentives for two tiers of efficient gas water heaters with an Energy Factor of at least 0.62 and 0.82 (the second tier is intended to include tankless water heating technologies.)

Table 3, that follows, details applicable efficiency levels and corresponding incentives for high efficiency gas equipment.

Table 3: *Warm Advantage* Natural Gas Fired Furnace, Boiler and Water Heater Incentives

Equipment	Minimum Efficiency	Incentive Levels
Furnace	92% AFUE or greater, ENERGY STAR	$300
Furnace with Electronically Commutated Motor (ECM) or equivalent	92% AFUE or greater, ENERGY STAR	$400
Boiler	85% AFUE or greater, ENERGY STAR	$300
Water Heater, Tier 1	0.62 Energy Factor or greater	$25
Water Heater, Tier 2	0.82 Energy Factor or greater	$300
Solar Domestic Hot Water	(criteria under development)	$1,200

Starting in 2009, incentives will be available for residential solar domestic hot water heating system. To be eligible, customers must have electric hot water heaters and meet other eligibility requirements. 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

In 2009 the program will continue to experiment with the use of upstream incentives in partnership with HVAC manufacturers (and/or possibly distributors or other "upstream" market actors) to increase sales of efficient HVAC equipment and/or the quality of the installations of HVAC equipment. Such efforts will be coordinated with regional efforts led by the Northeast Energy Efficiency Partnership ("NEEP") to the extent practical and appropriate. Promotions could be for either central cooling equipment, heating equipment or both.

In 2009 both Cool and Warm Advantage participants will be eligible to participate in a pilot designed to reduce the loss of conditioned air through residential ductwork, the "Duct Sealing Pilot". Because duct sealing is not currently offered as a service in New Jersey, and because both the necessary skills and equipment are rare, incentives during 2009 have been set to cover the entire projected cost. This will allow interested contractors to offer duct sealing as a free service, and will generate a database of costs and benefits that can be used to establish future incentive levels.

Table 4: Duct Sealing Pilot Incentive

Requirement	Documentation	Incentive Amount
Residential ductwork must achieve significant measured reduction in leakage and not leak more than a target percentage of conditioned air carried	Ductblaster® or equivalent test to be determined by program management.	$500 on avg. (to contractor)

All new program requirements, procedures and incentives will take effect 60 days from written notification to the HVAC industry. Any application for a purchase made after the 60 day notification period 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. 2008) program.

Creative Initiatives

Starting in 2009, the Program will solicit creative proposals for pilot-scale promotions either of new HVAC efficiency technologies, or of alternative approaches to promoting technologies already covered by the program.

Incentives will be provided to initiatives that promote these efforts, particularly to areas with low participation levels in the HVAC program. The incentives will be negotiated with creative initiative providers and will vary depending upon the proposed offering and the market segment targeted.

Planned Program Implementation Activities for 2009

The following program implementation activities will be undertaken in 2009:

- Increase program marketing efforts to increase program participation. In 2009 the program will begin direct marketing to homeowners, in addition to continuing marketing to HVAC contractors. The program will also pursue opportunities for enhancing cross-marketing with other programs, particularly the Existing Homes Program.
- Introduce a pilot voluntary quality installation verification (QIV) component, involving "real-time", third-party, in-field verification of proper refrigerant charge and airflow using qualified diagnostic tools. This component will also be available to participants under the Residential New Construction and Existing Homes programs. The pilot will include monitoring and analysis of CAC systems that receive QIV to better quantify savings.
- Pilot a central A/C and heat pump maintenance initiative – with financial incentives, marketing and other support – using QIV to correct charge and airflow for older central A/C and heat pump units. The program will explore opportunities for integrating this effort with related activities under the Home Performance with ENERGY STAR program.
- Pilot a residential duct sealing program designed to optimize the performance of conditioned air distribution systems in homes.
- Pilot incentives for solar water heating as a Warm Advantage program measure (note that for accounting purposes SDHW applications will be processed as electric applications).
- Train HVAC technicians on the proper calculation of heating and cooling loads using ACCA Manual J v.8 and Manual S compliant software, on proper A/C refrigerant charging and how to achieve proper airflow across the indoor coil, on the use of approved QIV systems, on technical material that must be understood to pass the

North American Technician Excellence (NATE) certification tests and/or Building Performance Institute (BPI) certification tests, proper duct sealing, duct design using ACCA Manual D, ENERGY STAR sales techniques, high efficiency gas heating system installation and selection practices and/or any other substantial form of training that is directly related to the promotion of energy efficiency and quality equipment installation.

- Support ENERGY STAR sales training for sales representatives of HVAC contractors.
- Continue to perform outreach activities to explain the program offerings (e.g. rebates, sales and technical training) with the State's HVAC contractors.
- Develop joint upstream promotions with HVAC manufacturers (and/or possibly distributors or contractors). This may be done either through regional effort led by NEEP or independently. Effort may include financial incentives or co-op marketing to support sales of efficient equipment and or documented quality installations. Promotions could be for either central A/C or heating equipment or both.

Research and Development

The draft NJ Energy Master Plan has established ambitious goals for energy efficiency. Currently available efficiency measures, and the initiatives that deliver them, will not be able to achieve these goals. The Program will pursue the development of new technologies and approaches that will become regular Program offerings in the future**.**

HVAC efficiency initiatives have historically focused on equipment efficiency. Quality installation verification may be an important source of savings, but research is needed into actual impacts in the field. The performance of new technologies like ductless mini-splits is not well understood and research is also needed into the role of HVAC system design and technology choices in determining final energy consumption.

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 ARI/CEE directory of air conditioning and heat pump equipment. Each application and its information are entered into a database which checks for duplicate applicants through an equipment serial number comparison. The use of third-party quality installation verification systems is being piloted in 2009 to provide an additional level of assurance that proper installation has been achieved.

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 GAMA directory of gas heating equipment. 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, a minimum of 10% of both electric and gas rebate applications are selected for a 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 2009 is attached in Appendix B

Goals and Energy Savings

Performance incentives will be associated with the number of QIV or AC/HP maintenance participants in 2009. Details on this goal can be found in Appendix C. Additional program goals are as follows:

- Process applications for 9,000 efficient central air conditioner and heat pump equipment installations statewide.
- Process 17,600 energy efficient gas space heating and/or water heating equipment incentive applications statewide.
- At least 800 participants in the combined QIV, maintenance and duct sealing pilots,
- Train at least 1100 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 Board approved protocols. Savings estimated for this program are included in residential sector savings goals shown in Appendix C.

Several modifications proposed for the 2009 Program specifically require the approval of complementary contract modifications before they can be implemented:

- Institution of quality installation verification (QIV)
- CAC and HP maintenance initiative
- Duct sealing pilot

In addition, the Program participation goal for 2009 assumes the approval of the proposed increase in the variable marketing budget. If approval is delayed beyond January 1, 2009, lower or different program goals will likely be necessary for 2009.

2009 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 the knowledge and motivation to make cost-effective purchases. The program employs several key strategies to accomplish this goal, including:

- Educating consumers on their energy usage and the role that energy efficiency can play in reducing their home energy consumption,
- Providing a retail infrastructure that offers a range of energy efficient qualified product choices to consumers,
- Marketing and training support for retailers, manufacturers and contractors selling energy efficient products,
- Working with community-based initiatives and other innovative approaches that 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 NJCEP "store,"
- Supporting the development of NJ State appliance standards, minimum federal appliance efficiency standards and ENERGYSTAR 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,
- Coordinating and facilitating product recycling and disposal services to address consumer concerns about 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.

The New Jersey's Clean Energy Program™ will continue to support efforts, where technically and economically justifiable, to upgrade federal appliance efficiency standards and state building codes. This includes participation in regional and national efforts coordinated by organizations such as NEEP and CEE, and also includes submitting letters in support of efficiency standards and building codes. 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

The program will provide targeted rebates/incentives to consumers for the purchase of select energy efficient products. 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 2009 the Energy Efficient Products program will continue to offer retail price incentives through "markdowns" and mail-in coupons on qualified lighting products, room air conditioners, clothes washers and dehumidifiers on a year-round basis. These incentives will be supported with a variety of promotional approaches, including leveraging EPA/DOE national ENERGY STAR campaigns. We also anticipate an expansion of the "creative" initiatives begun in 2008 (pending successful completion of current programs) to continue the work begun with communities and local organizations. The 2009 budget also includes new provisions for the promotion of energy efficient consumer electronics and for the implementation of an "early-retirement" program for refrigerators and freezers.

On-line or Mail in Energy Audit

In 2009 the program will continue to offer NJ customers the Home Energy Analysis customized energy audit, while reviewing options to freshen the product and increase online participation.

Incentives for ENERGY STAR qualified lighting products

The Program will offer the bulk of available incentives to manufacturers and/or retailers to mark down the retail prices of eligible efficient lighting products. 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. The average incentive per CFL should be about $1.00 per CFL and $15.00 per energy efficient light fixture, based on experience with the 2008 initiative.

Incentives for ENERGY STAR qualified appliances and equipment

To improve program market transformation impacts, the program will study the option to move the incentives for ENERGY STAR Room Air Conditioners (RAC) from a customer mail-in rebate to an upstream incentive negotiated directly with manufacturers. However, since the RAC market follows a fairly strict annual cycle driven by warm weather and the efficiency of RAC units sold during a given summer is decided during the fall of the previous year, announcing rebates for ENERGY STAR RAC in the spring may cause the redistribution of ENERGY STAR units from regions that do not have incentives to ones that do, without influencing the total market share captured by ENERGY STAR.

As a potential solution, in 2009 the Program will issue an RFP during the third quarter to award upstream incentives for energy efficient RAC units to be sold during the summer of 2010. The budget committed to these awards will be carried over to 2010 as a committed expense. To support relationships with retailers, the customer mail-in or online rebate for $20 per unit will also be offered between May 14 and August 31, 2009 as a transitional measure.

The Program will also offer a rebate of up to $75 offered for energy and water efficient clothes washers at a minimum modified energy factor (MEF) of 2.2[7] . In 2009 the Products program will continue the $25 rebate for ENERGY STAR qualified dehumidifiers begun in 2008.

Appliance Early Retirement

Upon plan and contract approval, program staff will spend 90-120 days developing and early retirement initiative with an annual goal of 20,000 old, inefficient refrigerators and freezers. Participants will receive hassle-free removal of all eligible, working refrigerators and freezers, as well as a modest customer incentive (< $50 per unit retired).

Creative Initiatives

In 2009 the Program will expand the creative initiatives for lighting begun last year to also cover pilot-scale promotions of energy efficient consumer electronics products such as televisions, set top boxes, and desk top computers.

Additional incentives will be provided to providers of "creative" initiatives that promote these technologies, particularly to the estimated 20-40% of customers who do not respond to conventional retail price incentive campaigns. The incentives will be negotiated with creative initiative providers and will vary depending upon the type of product and the market segment targeted.

Planned Program Implementation Activities for 2009

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 2009:

General Activities

Maintain existing retailer base and recruit new retailers. Update and distribute collateral and POP materials for product groups, continue retail associate training, and promote the Program on an as needed basis at NJ Clean Energy sponsored events

Change-A-Light

The 2009 Change-A-Light program will include a continued focus on strengthening diverse lighting promotions throughout the year, including CFL retail price markdowns with select retailers, co-op advertising, brochures, promotion of the national Change-A-

[7] The minimum MEF level for ENERGY STAR qualification is 1.72, but in 2008 most washers rebated through the Program already met MEF 2.2.

Light Pledge, and special energy education and lighting events at major retail locations throughout the State.

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 2009 additional emphasis will be placed on encouraging retailers to offer onsite CFL recycling options to customers.

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 results from these activities, the Program will expand resources available for creative promotions in 2009 and invite creative proposals to promote consumer electronics as well.

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 signed an MOU to create an online store as part of a creative initiative. In 2009 the Program will increase product and customer outreach thru the online store and expand the availability of high quality, energy efficient lighting and other products.

ENERGY STAR National Appliance Promotions

In 2009, program staff will review the marketing templates created by the ENERGY STAR and, as appropriate, use them to update collateral to retailers, and enhance program information on njcleanenergy.com.

Cool Your World

The Program will participate in the 2009 national ENERGY STAR campaign from May through September. Program staff will review the national marketing templates created and as appropriate use them to update collateral to retailers and enhance program information on the njcleanenergy.com website.

Audit Program

The Program will continue to offer an on-line audit with an eye toward reviewing the existing product and increasing participation and improving integration with the rest of the njcleanenergy.com website. Also, it will enhance referrals from the program to other clean energy programs, particularly the Home Performance with ENERGY STAR program.

Appliance "Early Retirement" Program

In 2009 the Program will introduce a market-based effort to promote and facilitate the early retirement of inefficient 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 program 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.
- Opportunities to realize additional savings will be investigated through participating in carbon offset trading of the CO^2 credits on the Chicago Climate Exchange.

New Technologies

In 2009, the program looks to expand the reach of the grass-roots "creative" lighting program to solicit proposals for delivering the "best of the best" in energy efficient products to NJ communities.

As part of the effort, the program will capitalize on the rapid advancements in television, computer power supply and monitor efficiencies and the participation of local and state level cable service companies to focus community level efforts on the dramatic increase of energy consumption of consumer electronics. The pilot will involve consumer marketing, local community organization and manufacturer partnering and product price incentives.

CFL Recycling

Following the voluntary initiation of an on-site CFL recycling program by a major NJ retailer in 2008, the Program's mark-down solicitation's proposal scoring system will 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 impact of the Efficient Products program will be strengthened through support of the Program for the Evaluation and Assessment of Residential Lighting (PEARL) and the Top Ten initiative. PEARL provides critical data on the performance of ENERGY STAR qualified lighting products, and has resulted in steady increases in the quality of CFLs. Top Ten will provide customers with on-line access to information about the "best of the best" energy efficient consumer products. Membership in the two programs is assumed to be funded directly through the New Jersey Board of Public Utilities (BPU).

Research and Development

The NJ Energy Master Plan has established ambitious goals for energy efficiency. Current efficiency measures and delivery techniques will not be sufficient. Starting in 2009 all NJCEP residential energy efficiency programs will begin to actively develop the new technologies and approaches needed to achieve EMP goals.

Needs for R&D for energy efficient products includes learning more how user behavior influences energy consumption and ways to minimize energy use by influencing the ways that people use technology. New technologies that are worth investigation include more efficient residential swimming pool pumps and more energy efficient clothes dryers.

Special Events

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, 5-10% 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. For co-op marketing promotions with manufacturers, distributors and retailers, payments are made to the co-op participant when the required proof of performance is received, which may include copies of invoices, packing slips, photos or samples of product bearing buy-down program identification, copies of delivery receipts, etc.

In addition to the above, the Energy Efficient Product program field representatives visit the participating storefronts to verify that Energy Efficient Product products have been received and have been displayed properly according to program requirements. If necessary they will unpack the products, put them on display and place the required program materials. Performance reports are provided to the program managers to assist in developing future promotions and selecting the most effective co-op marketing proposals.

Budget

A detailed budget for this program for 2009 is attached in Appendix B.

Goals and Energy Savings

Goals

Performance incentives will be associated with the number of clothes washer rebate applications processed in 2009. Details on this goal can be found in Appendix C. Additional program goals are as follows:

- Achieve sales and distribution in excess of 5 million CFLs in NJ in 2009.
- Provide at least 17,000 rebates for clothes washers.
- Provide at least 10,750 mail-in rebates for room A/Cs (No change from 2008, but also issue RFP for similar number to receive upstream incentives in 2010).
- Remove at least 17,000 old, inefficient refrigerators and freezers from NJ residential homes.
- Provide at least 7,000 rebates for high efficiency computers, LCD monitors, and televisions.
- 50% of retail store-fronts (i.e. at least 750 stores) participate in either co-op advertising or product incentive offerings.

Energy Savings

Following approval of the above goals, energy savings will be calculated consistent with Board approved protocols. Savings estimated for this program are included in residential sector savings goals shown in Appendix C.

Several modifications proposed for the 2009 Program specifically require the approval of complementary contract modifications before they can be implemented:

- Increased marketing to support year-round lighting promotions.
- "Early retirement" program for refrigerators and freezers
- Creative outreach program for consumer electronics and other technologies
- Expanded recycling program as part of the other program initiatives

2009 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) certification requirements for staff training and contractor companies must also be accredited in accordance with BPI standards and best practices. BPI certification is the "gold standard" that ensures that assessors have the skills required to identify and realize savings opportunities.

The Governor's draft Energy Master Plan challenge to reduce energy consumption by 20% by the year 2020 presents a clear and compelling call for bold increases in Program activity. Experience to-date with HPwES in upstate New York and other areas suggests that it requires a long development period and a tremendous amount of support to contractors and customers to create a sustainable market for energy efficiency services for existing homes. In order to rapidly ramp up program activity to levels suggested by the draft Energy Master Plan, the Program will include several significant changes to increase the number of customers, to accelerate the transformation of the market, and to support the delivery of market-based services. These changes to the Program will:

- Make contractor participation as simple and productive as possible,
- Remove barriers to customer selection of significant energy efficiency improvements beyond the initial "comprehensive home energy assessment" (assessment).

Current Target Market / Eligibility

The Program is designed to serve existing New Jersey (NJ) 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 natural gas or electric utility.

The EPA has recently expanded the definition of buildings eligible to participate in HPwES programs nationally to include small multi-family buildings without elevators. NJ has many large developments consisting of low-rise MF buildings and a number of Program contractors have demonstrated the skills and capacity to serve this market. Making small multi-family buildings without elevators eligible for participation in the Program could significantly increase participation (and savings). It will be necessary to extend some specialized handling and training to contractors to support the expansion of this portion of the Program.

Planned Program Implementation Activities

To initiate participation in the Program, a customer requests an assessment performed by a Building Performance Institute (BPI) trained professional. This assessment, or first Tier, of the Program will be a simplified, less expensive version of the assessment offered in prior years. The assessment will also be offered to customers at a lower price than previously. During the Tier 1 assessment, in addition to reviewing savings opportunities, the assessor will install up to 10 compact fluorescent lamps per home in high-use locations to garner immediate energy savings. If the assessment finds no health and safety issues and if the assessment also finds that air-sealing would be an effective energy efficiency measure, the assessor will offer Tier 2 services (up to eight person hours of air-sealing and diagnostic services) to the customer free-of-charge. The assessment will also include recommendations for all other appropriate energy efficiency improvements relevant to the home. Assessors will be trained to sell energy efficiency improvement services to customers for these additional improvements, under the third Tier of the Program.

Moving air-sealing into its own program Tier, and providing it for free serves several purposes:

1. Almost all homes need air sealing. It is not necessary to perform a blower door test to determine whether a house has health and safety issues that must be corrected before air sealing can take place. Moving the blower door test out of the Tier 1 assessment yields cost and time savings that makes it easier for customers to participate.
2. In other successful HPwES programs, customers follow up on assessments by contracting for comprehensive efficiency measures about one-third of the time. The other two thirds receive no measures and realize no savings. Providing air-sealing services for free should mean that 90% of customers requesting assessments will receive this important measure, with about one-third going on to purchase other major measures as well.

3. Even BPI certified Program contractors who are skilled at providing comprehensive services (insulation, HVAC improvements, etc) are sometimes not very good at air sealing. Moving air sealing into its own Tier means that the work can effectively be restricted to only those contractors who have demonstrated that they are able to consistently and appropriately tighten homes.

Implementation of the Tier 2 air sealing will be performed during a second visit to the house. Infiltration will be checked by pre- and post air sealing tests using a blower door. If a home requires more than 8 hours of air sealing, the customer will be given the option of stopping at 8 hours, or of rolling the cost of additional air sealing into Tier 3 of the Program.

Most other energy efficiency measures such as attic insulation, HVAC improvements, domestic hot water system replacement, window replacement, lighting retrofits, and efficient appliances will be offered through Tier 3. Customers must pay for Tier 3 measures, but become eligible for significant incentives when they contract for qualifying measures from a participating contractor. Following the Tier 1 assessment, and with the customer's permission, a description of the Tier 3 work identified during the assessment at the home will be posted on a secure Program website. Participating contractors will access the website and bid on Tier 3 work that fits their capabilities and work flow. Customers will be able to compare contractor bid prices and contact participating contractors for services. Program staff will be available to provide support to the customer as needed throughout the process and to answer any questions that may arise.

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 accredited by BPI, and which have at least one employee with BPI certification, may participate in the Program. These company accreditation and individual contractor certification requirements provide assurance to customers and the Program that comprehensive savings have been assessed, and that any health and safety considerations are also included in the report of recommended actions. Participating contractors must guarantee all work, and participating contractor companies must agree to abide by BPI standards governing health and safety, work quality, insurance coverage, customer service, and complaint resolution.

The original program design called for all program assessment and installation services to be provided by participating contractors. In 2008 the Program was changed to allow a portion of the initial assessments to be performed by Program staff, as a way to help jump start program participation. Based on the positive response to this initiative, Program staff will continue to perform some Tier 1 assessments until such time that the market place can meet the demand. Tier 2 and 3 services respectively, will be provided by participating contractors.

Offerings, and Contractor and Customer Incentives

In 2009 the cost to the customer of the Tier 1 assessment will decrease from $250 to $125. By offering Tier 2 air-sealing at no charge (effectively providing a $1,000

incentive per customer) the number of Program participants agreeing to receive this measure should dramatically increase. Nearly 3,000 customers are expected to request an assessment, and 90% of these assessments, or 2,700 customers, are expected to take advantage of Tier 2 air-sealing. The Program will meet this new demand by selecting the most qualified and active participating contractors and helping them to expand their businesses. The Program will also address a major barrier to contractor participation – the length of time that is currently required to process and pay contractor incentives.

The Program will actively recruit, train and qualify additional contractors specializing in delivering air sealing services and/or comprehensive services as needed to meet demand. This expansion will support "green collar" job opportunities in NJ. The Program will coordinate with existing green collar training initiatives and contractor training events in 2009.

Contractor Incentives

The Program offers a variety of incentives to participating contractors. Training is free, although participating contractors must pay a $500 deposit, reimbursable after they have received BPI certification. All fees directly assessed by BPI (certification, accreditation, and QA fees) are reimbursed by the Program at 75% of the cost to the contractor. Contractors who receive BPI accreditation may also be reimbursed for 50% of the cost of one set of new equipment needed participate in the program (blower door, duct blaster, various combustion safety testing devices, etc.).

Incentives to contractors for installing measures identified during an assessment depend on the scope of the work done. The incentive structure is presented below.

Table 1: NJ HPwES Contractor Incentive Tiers and Requirements

INCENTIVE TIER	REQUIREMENTS	CONTRACTOR INCENTIVE
Tier 1	Contractor does initial assessment and reports it to the program	$195 (Includes $20 for 10 CFLs and other low cost measures)
Tier 2	Contractor performs air sealing and/or duct sealing work, provides all materials and testing in/out	Up to $1000 (an hourly price, including labor and material) will be negotiated with selected contractors.
Tier 3	Contractor performs additional work (insulation, HVAC, DHW and other eligible measures)	$200 minimum, or up to 10% of total work scope up to $1,400.

During the first year after BPI accreditation, contractors advertising their participation in the Program will be eligible for reimbursement of 25% of the cost of approved marketing materials, up to a maximum of $10,000 annually per contractor location (e.g., a larger contractor with two locations in the state would be eligible for up to $20,000 in co-op marketing support). Contractors reporting a minimum of 10 jobs before their first anniversary of BPI accreditation will be eligible to receive the co-op marketing incentive

during their second year of Program participation. Contractors who have a record of significantly exceeding this minimum may be given increased incentives to encourage and reward higher performance.

Similar incentives will apply to BPI accreditation and certification renewal fees. Contractors producing a minimum of 10 jobs in the year following their first anniversary will continue to receive at least 75% reimbursement for BPI-related fees. NJ HPwES HVAC contractors will also be eligible to participate in (and receive incentives through) the 2009 air conditioner maintenance pilot under the Cool Advantage program (see HVAC program narrative).

A contractor not reporting at least 10 jobs during the first year, or otherwise not meeting program standards will be denied use of program marketing materials, including logos and program references, and will not receive incentives.

One of the major barriers to contractor participation is the amount of building performance modeling that must be done as part of the comprehensive home assessment, primarily for savings projections but as well as for data tracking and reporting. The Program requires modeling of each home's energy consumption characteristics, which tends to discourage contractor participation because few of them would otherwise go to the trouble. To assist contractors in overcoming this barrier, two strategies are proposed for adoption in 2009. Both should also benefit customers.

When assessments are performed by the Program:

- Scopes of work resulting from assessments performed by the Program are entered into the modeling software by internal staff and recommendations will be posted on-line on a secure web-site accessible only to approved contractors who are interested in bidding on the work. Contractors will be allowed a limited amount of time (e.g. 5 business days) to submit bids.

- Once contractors express interest by submitting bids, the Program will facilitate contact between contractors and customers.

As an added feature to this secure website, the Program will explore the possibility of using it to provide regular feedback to participating contractors about incentives they receive from the program. Such feedback may include the number of jobs completed and the incentives received, as well as the number of jobs in-process in the system and the incentives expected to be paid.

When assessments are performed by the Contractor:

While the proprietary Program software must be used to record data on every job, contractors are not required to use the building modeling component of Program software as part of their sales efforts, and many choose not to. In 2009, the Program will improve the data intake and analysis components of the Program software, and enable it to produce more customer-friendly outputs. The revised software will be able to generate

work orders on-site to facilitate the sales process, while still gathering the inputs necessary for building modeling, data tracking, reporting and cost-effectiveness analysis.

Incentive seed fund

The many significant changes proposed for the Program in 2009 are interdependent. For instance, the marketing budget has been greatly reduced in the expectation that the new customer and contractor incentives will generate a positive public response, and that the program will receive sufficient attention through word-of-mouth communication and free media coverage.

Providing Tier 2, air-sealing, services free-of-charge to participants is a critical component of this new strategy. A major challenge will be recruiting, training and retaining skilled air-sealing contractors. The program's ability to meet this challenge is wholly dependent upon find a way to pay contractors more quickly than has been possible so far. Based on contractor interviews over the past year and a half, the most serious barrier to expanded contractor participation is cash flow problems created by the current Program payment lag.

Unlike contractor incentives, which typically account for a smaller percentage of the total cost of a HPwES job, payments to air-sealing contractors must cover the full cost of the materials and labor involved. If the program in unable to pay contractors within about 10 business days of receiving an invoice, the contractor will have trouble meeting payroll, paying suppliers, etc. This existing situation has been further exacerbated by the current situation in the credit markets. Therefore, finding a way to accelerate the program payment process is critical to the success of this proposal.

To address this problem, pending Treasury approval, the 2009 Program will establish an "incentive seed fund". This fund will be created by allocating $500,000 of the Program's incentive disbursement budget at the beginning of the year to the Honeywell Team for the exclusive purpose of paying contractors for Tier 2 air sealing work. Contractors completing Tier 2 jobs will submit appropriate documentation and an invoice to the Program. After a thorough, expedited review the Program will pay the contractor the appropriate incentives from the seed fund. The Program will regularly compile batches of completed Tier 2 work orders and submit them to the NJ BPU with an invoice. Payments from Treasury on these compiled batches of work orders will replenish the seed fund. There will be regularly scheduled seed fund true-ups during the Program year to reconcile payments to contractors and funds received from Treasury. Any positive balance remaining in the fund at the end of the Program year would be returned to Treasury. Regular reporting will assure strict adherence to Program guidelines and generally accepted accounting principles.

The Program will perform random QA/QC inspections on 10% of the completed jobs. If, on the other hand, a job is found to be incomplete or not meet the Program's standards, the contractor will be required to remedy the job prior to payment being released. If the contractor does not perform up to Program specifications, for installation quality or customer service, the contractor will not be assigned additional jobs.

Customer Incentives

The customer will not receive cash incentives for either Tier 1 or Tier 2 services, but the reduced cost of the assessment and the value of the air sealing work should, respectively, present a very attractive opportunity to save energy. A customer proceeding with additional work in Tier 3, such as insulation and/or HVAC upgrades, will also receive reimbursement for the $125 Tier 1 assessment fee. In other words, the incentives are designed to build from the assessment to air sealing, towards the ultimate objective of educating the customer on the value of making a significant investment of his or her own money in Tier 3 measures, as shown in Table 2 below.

Because the costs of Tier 3 measures can be significant, the customer will be eligible for additional cash incentive of up to 50% of the value of the qualifying work, (to a max. of $5,000 excluding incentives received through other NJCEP programs). To ensure cost-effectiveness and encourage comprehensiveness, only Tier 3 projects which, in combination Tier 2 air sealing, achieve a projected 25% or greater savings of heating and cooling energy consumption will be eligible for the highest incentive level. The customer may elect to receive a lump sum upon completion of the project or to roll the incentive into a project financing package. Reduced rate financing encourages contractors to join the Home Performance with ENERGY STAR network and to propose effective, comprehensive projects. The project financing product offered is currently initiated by the Energy Finance Solutions of Wisconsin Energy Conservation Corporation (EFS-WECC).

Table 2: NJ HPwES Customer Incentive Tiers and Requirements

INCENTIVE TIER	REQUIREMENTS	CUSTOMER INCENTIVE
Tier 1	Initial audit reimbursement (upon completion of Tier 3 measures)	$125 (a $300 value)
Tier 2	Install air sealing and duct sealing measures	Estimated average $1,000 value, fully subsidized by the program
Tier 3	Install insulation, HVAC, DHW and other eligible measures	10% to 50% cash rebate[1], up to $5,000 or 3.99% low interest loan based on estimated savings.

1. Eligibility for cash rebates is determined by magnitude of projected savings, as a percentage of total energy consumption.

In addition, income-eligible program participants (household income between 175% and 300% of the New Jersey statewide poverty level) are provided with not only a cash incentive (50% of the value of qualifying work, up to $5,000) but can also use the reduced rate financing for undertaking efficiency improvements recommended by their assessment on the remaining balance of the work scope (see Table below).

In 2009 the Program will work with the BPU and other parties to create additional project financing products including secured loans that can be offered by contractors at a lower cost to the Program. For example, the Housing and Economic Recovery Act of 2008 encourages homeowners to use Energy Efficient Mortgages to purchase or refinance houses. The program will look into this new opportunity to promote Home Performance and increase participation in the program. Quite a few things will need to be clarified however as the description of the act does not specify the type of energy rating that will be needed, who will provide the final inspection, approval process from financial institution, etc. A report produced for Efficiency Vermont, "Enabling Investments in Energy Efficiency: A study of programs that eliminate first cost barriers for the residential sector", identifies other potential financing mechanisms which will be explored for feasibility

Multi-Family Buildings

The EPA has recently announced that multi-family (MF) buildings without elevators may participate in HPwES. Under the Program's existing incentive structure, the owner of a qualifying MF building could receive up to $5,000 per unit in incentives towards efficiency improvements. The Program will investigate incentive structures that encourage landlords to share some of the benefits of incentives with tenants as a way to build acceptance of the Program.

Larger Homes

In 2008, program auditors responding to customer audit requests have occasionally been faced with the special challenge of an unusually large home. These homes have often in excess of 8,000 sq ft of conditioned space, and/or have more than two HVAC systems. The large size and multiple HVAC systems means that the audit can take significantly more time than for more conventionally-sized homes, and that the analysis of potential savings can also be more complicated. In most cases, the owner of the unusually large home has been informed that their home cannot receive a subsidized audit. This is unfortunate and works against the overall goals of the program. Large homes also tend to have large energy consumption and the potential for large savings through program participation. In 2009 the program will introduce a protocol for houses that meet specific size and equipment characteristics. The protocol will include a higher charge to the customer, an appropriately scaled incentive, and technical guidelines on appropriate auditing techniques for larger homes.

Research and Development

In 2009 the Program will also begin to more formally research and develop the new technologies and approaches that will become Program offerings in the future. It is important to invest now in these future energy efficiency measures in order to meet the ambitious future goals for energy efficiency set forth in the NJ Energy Master Plan. . Technologies and approaches currently under consideration for R&D efforts include community-level efforts through "Extreme Home Energy Makeovers" to pursue the deepest possible savings, adaptive HVAC controls, looking into QIV for efficient gas HVAC, and the potential role of energy consumption feedback devices in customer

energy use modification.

Coordinated Offerings

CORE Program

The Customer Onsite Renewable Energy (CORE) Program will continue to encourage residential customers who install photovoltaic systems on homes to participate in the Program by offering full solar rebates only to those customers who agree to have an assessment done on their homes as well as the air sealing and duct sealing work if applicable. The CORE rebate will be reduced if no Program assessment and air sealing work are performed.

As in the past, photovoltaic systems under the CORE program will not be eligible for incentives from the NJ Home Performance with ENERGY STAR program.

HVAC

Customers replacing heating and/or central cooling systems will be eligible for incentives on their new HVAC systems either under the NJCEP HPwES Program or the NJCEP HVAC program, but not both. In order to take advantage of the current high level of interest in renewable energy, solar domestic hot water installations may be covered by either the HVAC or the HPwES programs under similar terms.

Quality Control Provisions

It is very important that the integrity of the Home Performance with ENERGY STAR brand be protected. The standards for becoming a HPwES contractor are quite demanding, even with the incentives provided. 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 Home Performance with ENERGY STAR.

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 *Follow-up Work Order* will be given to the contractor which details the necessary corrective action that must be taken. Once the corrective work is done, a *Declaration of Completion* must be signed by the contractor and customer and sent to the Program, which will schedule a re-inspection to ensure compliance.

Similar QA/QC procedures are proposed for all Existing Homes work.

Budget

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

Goals and Energy Savings

Goals

Performance incentives will be associated with the savings goals established for 2009, which in turn are dependent on approval of the proposed changes. Details of the proposed goals can be found in Appendix C. Additional program goals are as follows:

- 2,400 Tier 2 job completions
- 800 Tier 3 job completions

Savings

Energy savings will be calculated consistent with Board approved protocols. Savings estimated for this program are included in residential sector savings goals shown in Appendix C.

The proposed modifications for the 2009 HPwES Program assumes that the 2008 contract modifications will approved before the end of 2008. Approval of the proposed 2009 modifications to HPwES delayed beyond January 1, 2009, will substantially impact the ability to meet the proposed savings goals.

2009 Clean Energy Community Partners Program

Program Description

The Community Partners program offers New Jersey communities a forum to participate in statewide clean energy campaigns; to educate and help enroll residents, businesses, and municipalities in New Jersey's Clean Energy Programs™ (NJCEP); and to take advantage of valuable technical assistance and financial incentives. The Community Partners program supports community efforts to set clean energy goals, develop outreach plans, and educate residents about the economic and environmental benefits of clean energy and simple climate change solutions.

Current Target Market / Eligibility

All communities located within the State of New Jersey are eligible to participate in the Program. To participate, communities must make a commitment which may include enrolling a minimum of 2% of their residents into the Choice Program or collecting at a minimum 200 Change A Light, Change The World Pledges. Participating communities must submit a formal Public Outreach Plan with their enrollment applications. In the Program development period, the Market Managers will determine appropriate participation levels and additional Program participation and eligibility criteria may be added.

Offerings and Incentives

As a Community Partner, communities are eligible for local support from NJCEP through:

- Programs that result in energy savings, incentives, and technical support,
- Biannual training sessions, campaign literature, and networking opportunities,
- NJCEP Program representation at local events and meetings,
- Annual media campaigns tied to local newspapers, and
- Marketing & Technical support in the development of newsletters, press releases and flyers for local community activities related to CEP Programs.

Broader NJCEP activities that communities may choose to participate in include (but are not limited to):

- The Efficient Products Program's Change A Light, Change the World Campaign, a national program through which Community Partners encourage their residents to join others across the state and the country by pledging to change the 5 most commonly used light bulbs in their home or office to ENERGY STAR® compact fluorescent light bulbs.

- So called "creative initiatives" where program contractors work with schools, churches, employers and neighborhoods to bring energy efficient products, services, and information about the full range of NJCEP offerings to communities.
- The Home Performance with ENERGY STAR® program which helps homeowners to make energy efficiency improvements to existing homes. Home Performance provides technical analysis of home energy use, incentives to help pay for improvements, and access to a certified contractor network to make the improvements happen.
- A municipal energy audit that offers qualifying municipalities and other government agencies incentives to subsidize the cost of performing an energy audit of their facilities. Municipalities will be able to request proposals from a list of approved contractors operating on a fixed fee basis. The program will reimburse 75 percent of the cost of the audit and provide full reimbursement upon installation of all recommended upgrades under certain circumstances set forth in the Municipal Audit Program Plan.

Planned Program Implementation Activities for 2009

More and more communities are looking to "green" their townships/counties and are seeking resources, programs and training to determine next steps and make them happen. The Program's challenge is to continue to build a sustainable infrastructure to support communities in these efforts, and to strengthen this market channel resulting in increasing numbers of Community Partners and more in-depth NJCEP Program participation. For 2009, the Program will advance participation rates and services by offering:

- A comprehensive approach that integrates NJCEP programs, community networks and other clean energy organizations;
- Account management that will focus on coordinating the communities with the offerings the NJCEP provides, ensuring every eligible community willing to participate is served;
- Resources available to train trainers within communities. These services will be offered in exchange for meeting minimum requirements (to be developed). Technical support related to energy savings, carbon abatement estimates and reporting on Community goals ;
- Co-incentive packages, (that may include monetary incentives or resources in kind) designed to be flexible with an approach that will yield higher rewards for more increased participation in CEP programs;
- Reporting that will serve as an information clearinghouse for NJCEP programs and the partners. By providing Program participation data for all NJCEP Programs, Community Partners will be able to measure their impact on their communities by participating in the valuable program.

Green Collar Jobs

It takes more labor to save a kilowatt hour of electricity or therm of natural than it does to produce that amount of energy. Electricity and natural gas are very capital intensive, and that capital is often invested somewhere different than where the energy is used. In the case of New Jersey, most of the energy production investment is out-of-state. The NJCEP installs energy efficiency in New Jersey homes using local labor performing work that cannot be outsourced. Energy efficiency creates jobs at a variety of different levels requiring a range of different skills. Residential energy efficiency requires skills in line with the residential construction trades, and can be performed by workers with technical educations.

The level of effort reflected in the proposed 2009 NCEP residential energy efficiency plan will increase energy efficiency jobs in New Jersey. The level of effort implied by Governor Corzine's Energy Master Plan goals will require a significant workforce development effort to train the new generation of residential energy efficiency providers needed to retrofit over 100,000 homes per year. This residential energy efficiency work must be performed in all New Jersey communities, and through the Community Partners program NJCEP will build strong lines of communication with communities to help develop energy efficiency projects. This network will also be used to identify workers who would like to enter the energy efficiency industry, and local resources for training.

Quality Control Provisions

To mirror those associated with the other NJCEP programs.

Budget

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

Goals and Energy Savings

Key program goals should include:

- Continuing to develop communities as a channel to municipal, commercial and residential customers that can make use of NJ CEP programs,
- Broadening the value proposition that works for the community partners (minimum requirements),
- Providing a single point of contact to coordinate market manager activity at the community level,
- Raising awareness and recognition of NJCEP Programs; and
- Supporting of 20% energy and GHG reductions by 2020

The Community Partners Program will not generated energy savings independently, but will increase the savings generated by other NJCEP program's offerings in the residential - commercial/industrial efficiency and renewable energy markets as discussed above.

2009 Renewable Energy Program

Description

The Renewable Energy Program (REP) offers incentives and market services to New Jersey electric utility customers investing in renewable electricity generation to offset onsite energy consumption using solar photovoltaic, wind, and sustainable biomass resources. The 2009 REP restructures the Customer Onsite Renewable Energy (CORE) program, consolidating it with the SREC-only Pilot, and REC Facilitation programs. The 2009 REP also adds services to accelerate development of wind and biopower projects in New Jersey.

The New Jersey Energy Master Plan calls for the aggressive adoption of renewable energy technologies, reaching an overall goal of 20% by 2020, as defined in the New Jersey's Renewable Energy Portfolio Standards (N.J.A.C. 14:4-8). There are a number of economic, technical and infrastructure barriers to the adoption of renewable technologies.

REP will work to reduce these market barriers with rebates for eligible systems (described below) that make renewable energy installations more cost-effective by offsetting a portion of the initial capital cost. The program also offers market development support services, including consumer education and outreach, technical training, inspections, and the facilitation of registration for renewable energy credits.

In budget years 2005-2008, incentives for onsite renewable energy have been delivered in the form of rebates for projects less than 2 MW through the CORE program. CORE has achieved remarkable success in establishing the New Jersey as one of the leading global markets for onsite solar electric systems, and created a foundation for future growth.

In contrast, wind and biomass systems remain in the early stages of market evolution, and while high in potential, have experienced only a fraction of participation relative to solar. In 2008, wind and biomass systems were given a CORE budget category with dedicated funds and greater market focus.

In addition to rebates, solar projects have also qualified for Solar Renewable Energy Credits (SRECs), while wind and biomass projects have qualified for Class I Renewable Energy Credits (RECs). The SREC-Only Pilot program offered market participants willing to forgo a CORE rebate with an expedited means to obtain SRECs for their projects, and the SREC-only model is seen as the primary vehicle for driving development of larger solar projects in the future.

With the advent of the New Jersey solar market transition and the August 7, 2008 Board Order Establishing 2009 -2012 Funding Levels, in 2009-2012 rebates will be provided only for solar projects which are less than 50 kW. Incentive design will be structured to eliminate the potential for queues in the future. For solar projects greater than or equal to

50kW, there will be no rebates available. SRECs will provide market-based incentives for actual production, and their value will be determined by market forces. Wind and biomass projects will continue to receive rebates for all behind-the-meter customer-sited projects up to and above the net metering limit, with separate budgets and market approaches established for each technology.

In early October, 2008 the Federal government extended and enhanced the investment tax credit support for photovoltaic and small wind systems.[8] The legislation is significant for solar markets in New Jersey and the rest of the United States because it provides a long-term market signal, and with the removal of the $2.000 residential system cap, it provides a significant additional tax benefit to a typical residential project. For example, the value of the enhanced tax credit for a typical residential system in New Jersey is roughly $8.000.[9] The increased federal tax support provides an encouraging market signal, and can serve to improve customer economics, while direct incentives provided by the State of New Jersey are reduced.

In response to the changes in the federal tax credits the New Jersey Board of Public Utilities issued a public request for comments, October 30th, 2008, on whether and to what extent program rebates should be modified. The comment period closes on November 21, 2008. This version of the 2009 Renewable Energy Program filing includes preliminary modifications to program rebates and budgets based on comments received by the market manager team through November 6th, 2008.

REP incorporates activities across the spectrum of market, technical, and financial support, and includes application processing, incentive processing, inspections, technical training and other services, and strives to:

- Consolidate administrative processes,
- Simplify and improve marketing and communications regarding program offerings (thereby deepening market penetration), and
- Simplify the contractual and billing structure, across the spectrum of program offerings and technology types it encompasses.

REP will also promote 'upstream' market development activities that promote effective business networks between site hosts, developers, manufacturers and financiers[10]. These

[8] The federal legislation name is the Emergency Economic Stabilization Act of 2008 (H.R. 1424). Key elements include an 8-year extension of the residential and business investment tax credit (ITC) for solar, small-wind and geothermal systems , an elimination of the US $2,000 cap on the residential ITC (which provides a 30% tax credit, net of other incentives), provisions to allow those paying alternative minimum tax to take advantage of the credit, and the elimination of the prohibition on utilities from obtaining the ITC

[9] The particular tax benefits will vary from project to project. Example Based on an average system size of 7.5 kW and installed costs of $8/Watt. Prior residential credit = $2,000 (capped), new tax credit (@ $3.50/Watt incentive level) = $10,125,

[10] Upstream market development activities included training and workshops (described in Sections 4&5), technical assistance and "hand-holding" for potential customers, and outreach to industry through

activities will accelerate the development of wind and biopower projects compared to an approach that relies solely on rebates to induce market response.

Target Market and Eligibility

The REP program serves residential, commercial, institutional and industrial market segments, and is available to private and public customers in all rate classes. To be eligible to participate in the REP, an applicant must be a ratepayer of a New Jersey Board of Public Utilities-regulated electric and/or natural gas utility paying the Societal Benefits Charge (SBC).

Four renewable energy technology types are eligible to participate in the REP:

1. Photovoltaic – Systems that utilize semi-conductor technologies to produce electricity directly from sunlight.
2. Sustainable Biomass – Systems that use a sustainable and renewable supply of organic material to produce electricity.
3. Wind Generation – Generators that convert the kinetic energy of wind into electricity.
4. Fuel Cell – Electrochemical energy conversion devices that produce electricity from external supplies of fuel (hydrogen) and an oxidant. To be eligible for participation in the REP Program the Fuel Cell must use a renewable source to produce the hydrogen fuel.

The target markets for solar, wind and biopower differ driven by resource availability and technology:

Technology	< 50KW	>=50KW
Solar	Solar Rebate & SREC	SREC
Wind	Wind Rebates and Class I RECs	
Bio-power	Bio-power Rebates and RECs	

Solar photovoltaic 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. There are few siting challenges related to solar, since the technology is often viewed as aesthetically pleasing, and creates no noise, emissions or water use issues. A robust solar industry has developed globally, and there is significant research, development and investment underway to increase the scale of manufacturing, and to reduce costs across the supply chain. .With its mature 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 target wind market in New Jersey is defined primarily by resource availability.

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conferences, working groups, and individual contacts, to raise awareness of market opportunities in New Jersey and the NJCEP offerings.

Winds suitable to sustain positive economics are located mostly along the shore, and in the highlands. Early experience in the market suggests that small residential wind projects result in significant siting challenges, given the aesthetic issues with high towers and concerns about noise and vibration. This is less of an issue in sparsely populated areas of the state and in industrial zones.

To date, there has been significant interest in wind development among coastal municipalities and municipal authorities (such as wastewater treatment facilities). REP will be targeting these coastal and highland communities, and industrial sites in these communities, to stimulate awareness and interest in developing and supporting projects. Combined with expedited permitting and modifications to net metering rules, it is possible to envision significant growth in this market. The REP will work with stakeholders to encourage this development.

The sustainable biomass market is comprised of many market segments and niches. The landfill market has already been penetrated through the EPA's landfill gas to methane program. Current research indicates that the best onsite biopower opportunities will exist where there is an ongoing reliable supply of feedstock generated at the site, where electricity needs are high, competition for feedstock is low, and at sites located in industrial zones.

The biomass market segments with the highest potential include wastewater treatment facilities, food manufacturing, and wood and paper manufacturing. In addition, there may be opportunities in retail-oriented facilities that generate food and paper waste and that have enough space to co-locate biopower facilities (such as universities, schools, retail malls and amusement parks). In total, there may be 400-500 target prospects for onsite biopower, but significant development work is needed to stimulate demand in these market segments and to create a robust supplier community in the state.

The REP rebate program will provide support for systems that serve to off-set the customer's own on-site electric consumption, and do not produce net excess generation from the site on an annual basis. These are typically net-metered systems but can also include large industrial facilities that use all of the renewable energy generated on-site and do not need to be net-metered. The REC program is available to all grid interconnected projects, whether they produce net generation or not.

New construction projects are also eligible, provided they provide documentation of projected annual electric consumption to demonstrate the proposed system will not produce more than 100% of their annual consumption.

All systems must be installed in accordance with manufacturer specifications and program technical parameters (discussed in Section 5). The program utilizes a quality assurance approach where a percentage of projects are subject to an on-site inspection to verify these standards have been met and that the system as installed matches the system proposed in the application.

Offerings and Customer Incentives

Direct rebates continue to be a primary strategy for supporting the development of the renewable energy markets described above. In 2009 the REP program is adopting a more streamlined set of rebate budget categories, consisting of two budget categories for solar and one each for wind and biomass projects.

2009 REP Program - Budget Categories

Budget Category Name	Eligible Projects
Solar Residential: Less than or equal to 10 kW	All residential projects less than or equal to 10 kW of rated capacity with the exception of those owned by a third-party such as a power purchase or lease purchase agreement.
Solar Non-residential: Less than or equal to 50 kW	All non-residential projects up to 50 kW of rated capacity. This category includes all commercial, public, and non-profit organizations (municipalities, other governments, public colleges and universities, public schools (K-12), and affordable housing organizations). Residential projects with power purchase agreements (PPAs) or lease purchase are included in this budget category.
Wind and Biomass	All new behind-the-meter customer-sited wind and biomass projects up to and above the net metering limit,

Solar residential projects owned by third parties through with power purchase agreements (PPAs) or lease purchase agreements are considered solar non-residential for the purpose budget category and rebate level. These projects remain limited by the maximum system size for a residential project, which is the lesser of annual on-site consumption or 10kW.

Solar Electric (Photovoltaic) Incentive Design

Several important design objectives regarding customer incentives are incorporated into the 2009 solar incentive structure:

- The incentive system design must protect against the possibility of reserving the total annual budget early in the year – resulting in a long period (e.g. 6 months or more) where no new incentive approvals or sales can take place.
- The incentive system design must not lead to the development of new queues, which have the potential to result in long lead times for new project approvals, and to over-subscribe new funds before they are available to the market.
- Incentive reductions are predictable, based on growth in the market. If unanticipated circumstances arise, regulatory review and modification to incentive levels may be required, but the design should establish an incentive reduction mechanism that will be administrative (rather than regulatory) in nature. Clear and transparent communication on incentive reductions and mechanisms will be needed.
- Wherever practical, incentive design mechanism should encourage investment in energy efficiency. While not a strict requirement for program participation, the market should be encouraged to invest in energy efficiency and to participate in applicable

efficiency programs administered by the NJ Clean Energy Program, such as the Residential New Construction (RNC) program or the Home Performance with ENERGY STAR (HPwES) program.

Solar Funding Cycles, Capacity Blocks, and Buffer Mechanism

In addition to 2009 new program funding, the Market Managers will continue to issue rebate approval letters for eligible projects that submitted a complete CORE program application using the remaining 2008 CORE Rebate Program funds until the earlier of a) sixty days from the Board Order approving the 2009 REP Program Plan or b) the date when the remaining 2008 funds have been committed. In this plan it is anticipated that for residential projects less than 10kW these approvals will be issued with a rebate level of $2.50/Watt. The 2008 fund approvals will be issued based on the directive received from the Board on incentive level adjustments. This Board Order is expected in early December 2008.

The 2009 REP Solar budget includes a first refusal incentive block for eligible projects that submitted a complete CORE program application but were not approved for a CORE program rebate due to funding limitations. The first refusal blocks for both residential and non-residential projects will be approved at the start of the 2009 program year.

The 2009 program budget for new market activity will be divided into three funding cycles of four months each. New approvals will be issued on a first come first served basis for the dollars available in the each funding cycle. Establishing three funding cycles per year is administratively feasible, and provides a framework that assures there is a certain minimum distribution of program activity throughout the year. Under this system, a project that is unsuccessful in getting support in any given funding cycle will need to wait less than four months before being eligible to re-submit their application.

For the new 2009 REP funding cycles, incentive levels will be determined based on declining capacity-based blocks. After each capacity block is filled (by approving rebate applications) the incentive level will 'step down' for the next capacity block. The incentive block step-downs are independent of the three annual funding cycles. The primary function of the funding cycles is to make funding availability and sales cycles more constant throughout the year. The primary function of the incentive blocks is to decrease incentive levels as the market continues to grow.

The standard incentive decline at the end of a capacity block is $0.20/Watt. A buffer mechanism will be used to provide market responsiveness in case the funds available in each cycle are being reserved at a very rapid (less than one month), or slow (more than six months) pace.

There is no buffer adjustment to the incentive level if it takes between one and six months to fully reserve the incentives available in any funding cycle. If available funds are reserved rapidly (in less than one month from the funding cycle start date) then the

incentive level will decrease by $0.05/Watt for the next funding cycle. If available funds are slow to be reserved (more than six months from the start of a cycle) then the incentive level will be increased by $0.15/Watt for the remainder of the funds in that cycle and will remain at this level for the next capacity block, or until adjusted due to the rapid reservation of funds.

No Queues

With three annual funding cycles, no queues will be initiated and no advance reservations will be accepted for the next funding cycle. Complete applications will be processed and receive approval letters based on the order of their receipt at the start of each funding cycle. A two to three week period before the start of each funding cycle may be used to accept and process new applications for the coming cycle. If necessary, based on experience, adaptive management mechanisms (e.g. a limit on the number of first week applications that can be submitted by an installer, and/or a lottery to determine the order first week processing) may be developed and used to promote fair and efficient processing.

Once the funds for any budget category are fully committed the REP will help potential new applicants understand their options, and support their participation in available programs. This support will include registration as an SREC-Only project, providing instructions on how to re-apply for the next funding cycle, or referral to other programs that provide grants or loans for renewable energy system development.

The REP will provide frequent web-based reporting on funding cycle and block subscription levels (based on implementation of proposed contract modifications). Examples of how this system can be used include:

- Email notification triggered by each 10% of block capacity that is approved.
- Email notification triggered by each $1 million of funding approvals for each cycle.

No Expected Based Performance Buy-down

After considering the advantages and disadvantages of changing the basis of incentive calculations for solar from a capacity based buy down to an expected performance based buy down, it is recommended that the program continue with the capacity based buy down incentive calculation for solar systems. Maintaining the capacity based buy down is simpler for installers and program administrators.

With SREC and electric savings providing a major portion of the total value from the systems, there is a sufficient incentive mechanism in place to encourage system performance and long-term maintenance.[11] The REP will continue emphasizing the

[11] With the decline in incentive levels likely to be implemented due to the extension of the ITC, the relative value of up front rebate compared to SREC and electric savings revenues becomes even smaller. For

importance of shading analysis and the impacts that partial shading can have on system performance, through training and inspections.

Integrating Efficiency

As part of the incentive structure, there will be two tiers in each incentive block for the residential solar rebates. The standard rebate levels presented in the table below will be available for those residential projects that have a Home Performance with ENERGY STAR audit, or who participate in the Residential New Construction Program. Residential projects that do not participate in the Home Performance with ENERGY STAR or Residential New Construction Program will be eligible for rebates that are $0.20/Watt less than the standard incentive level.

Residential Solar Incentives

The 2009 REP solar rebate budget, with preliminary recommendation for adjusted rebate levels due to the 2008 Federal Investment Tax Credit extension and modifications, for residential projects is summarized in the following table.

example, if new standard rebate level is set at $1.75/Watt the present value of the SREC revenue and electric savings (which are both performance based) for a 7.5 kW system are two to three times greater than the initial rebate.

2009 REP Residential Solar Incentives

Category	Standard Incentive Level [1]	2009 Rebate Budget (million)	Anticipated kW
Solar Residential: Less than or equal to 10 kW			
First Refusal Block [2]	**$2.00**	**$0.822**	**411**
New Market Activity [3] (Jan-Apr)	$1.75	$7.000	4,000
New Market Activity (May-Aug)	$1.75	$5.500	3,143
New Market Activity (Sep-Dec)	$1.75	$5.000	2,857
New Market Activity (Sep-Dec)	$1.55	$0.250	161
New Market Subtotal (cycle 1,2, and 3)		**$17.750**	**10,161**
Residential Subtotal (first refusal, and new market activity)		**$18.572**	**10,572**

Notes:

1) Rebates are $0.20/Watt less for residential projects that do not participate in the Home Performance with ENERGY STAR or Residential New Construction Programs.

2) The first refusal block consists of the eligible projects that submitted a complete CORE program application and are not able to receive funding approvals with the remaining 2008 CORE funds.

3) The size of the first new capacity block and the subsequent incentive reduction will be determined pending direction from the Board. This plan assumes the standard incentive level of $1.75/Watt is maintained for the first 10 MW of newly approved capacity and a $.20/Watt reduction for the next capacity block until all 2009 funding is committed.

4) If available funds are committed in less than one month then the incentive level will decrease by $0.05/Watt for the next funding cycle. If more than six months is required to commit available funds then the incentive level will be increased by $0.15/Watt for the remainder of that cycle and will remain at this level to start the next funding cycle.

The total incentives proposed for the residential sector are roughly $18.57 million, with ninety five percent allocated to new market activity.

For those projects that have already received an approval letter but are not completed, the Board is considering a decision, expected in December 2008 that may adjust incentive levels.

For those projects that have applied to the CORE program and are able to receive a rebate approval with 2008 CORE funding:

- Flat rate of $2.50/watt for all applicants in this group regardless of completion date.

For the first refusal block including projects that have applied to the CORE program and did not receive a rebate approval with 2008 CORE funding:

- Standard incentive level of $2.00/Watt.

Non-Residential and Residential Third-Party Ownership Solar Incentives

The 2009 REP solar rebate budget for non-residential projects is summarized in the following table.

2009 REP Non-Residential Solar Incentives

Category	Standard Incentive Level	2009 Rebate Budget (million)	Anticipated kW
Solar Non- Residential:			
First Refusal Block [1]	**$1.00**	**$3.300**	**3,300**
New Market Activity (Jan-Apr)	$1.00	$1.900	1,900
New Market Activity (May-Aug)	$1.00	$1.900	1,900
New Market Activity (Sep-Dec)	$1.00	$1.852	1,852
New Market Subtotal (cycle 1,2, and 3)		**$5.652**	**5,652**
Non-Residential Subtotal (first refusal, and new market activity)		**$8.952**	**8,952**

Notes:

1) The first refusal block consists of the eligible projects that submitted a complete CORE program application and are not able to receive funding approvals with the remaining 2008 CORE funds.

2) If available funds are committed in less than one month then the incentive level will decrease by $0.05/Watt for the next funding cycle. If more than six months is required to commit available funds then the incentive level will be increased by $0.15/Watt for the remainder of that cycle and will remain at this level to start the next funding cycle.

The total incentives proposed for the non-residential sector are $8.95 million, of which roughly $3.3 million are allocated to the first refusal block and $5.65 million to new market activity. The standard incentive level for the first refusal block and new market activity is $1.00 /Watt.

Wind Incentive Design

The 2009 REP Program rebate levels for wind projects remain the same as in 2008, and are based on an Expected Performance Based Buy down (EPBB). The wind rebates are the same for private and public/non profit entities. The Emergency Economic Stabilization Act of 2008, H.R. 1424, also includes a provision to make small wind systems up to 100 kW eligible for a 30% investment tax credit with a $4,000 cap. This tax incentive will improve the customer economics for small wind installations in New Jersey, but due to current low levels of wind market activity, no adjustment to the wind rebate levels is proposed in the 2009 REP plan.

The EPBB for wind accounts for factors impacting the annual expected generation for each installation and site. For wind, these factors are estimated annual wind speed at 50 meters, the proposed tower height, and the performance curve for the proposed turbine.

The estimated performance based buy down calculation method is designed to provide incentive levels comparable to the previous rebates for systems installed at sites with a good, ~11 MPH, average annual wind speed. The EPBB rebate is calculated according to the first year estimated annual output, providing greater incentives to systems expected to have higher energy output. The required inputs from new applicants include the site's wind resource at fifty meters (from the three available wind resource maps), the proposed hub height for the turbine, and the turbine being proposed.

Turbines eligible for incentives will be listed on the New Jersey Clean Energy Program website. With this information, program staff will estimate the annual output and calculate the incentive amount. The incentive methodology and rebate levels are designed to provide attractive customer economics for wind energy systems up to 2 MW or beyond, if enabling rules are put in place to accommodate such systems.

2009 REP Wind Rebate Schedule

Wind Systems **Estimated Annual Energy Production**	**Rebate Level**
1-16,000 kWh	$3.20/Annual kWh
16,000 – 750,000 kWh	$.50/Annual kWh
There is a cap on the maximum allowable incentive. Maximum incentive amount is based on system specific production at 120% of reference wind speed (11.4 MPH X 120% = 13.7 MPH)	

Sustainable Biomass and Fuel Cell Incentive Design

The REP will target sustainable biomass as a key market to develop in 2009. The program will provide the following elements related to biomass and fuel cells:

- Maintain a capacity based buy-down in 2009
- Establish a declining block incentive
- Maintain a technology neutral incentive structure
- Support feasibility studies and other catalyzing activities
- Support on-site systems that are >2 MW

New Jersey Clean Energy Program 2009 Biomass and Fuel Cell Rebates

Fuel Cell and Sustainable Biomass Systems	
Watts	**Rebate Level**
1 – 10,000 watts	$4.00/watt
10,001 to 100,000 watts	$2.00/watt
100,001 to 500,000 watts	$1.50/watt
500,000 watts, up to 1,000,000 watts	$0.15/watt
Maximum rebate as percentage of eligible system costs	30%

Other Program Services

In addition to incentives, REP will offer services required to support the NJ BPU's solar market transition. The program will provide the following technical services:

1. The Market Manager will continue its coordination role in transitioning the SREC Administrator from Clean Power Markets to PJM-EIS;
2. Assistance to customer-sited renewable energy project developers in setting up REC or SREC trading accounts;
3. Pre-construction assurance to developers of behind-the-meter projects that their proposed projects will be eligible to earn New Jersey RECs or SRECs;
4. Verification that completed renewable energy projects meet all requirements for producing RECs or SRECs, including initial inspection and verification of new SREC resources. The inspection process for the 2009 REP rebated and SREC-only projects will transition from a 100% inspection level to a quality assurance process consisting of a percentage of sites being inspected. If entities involved in project development

wish to have a system inspection, those entities will be responsible for paying for the inspections, unless other stipulations have been negotiated with the BPU.

5. 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. 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 certificates and should lower the ultimate costs for compliance with the RPS requirements.
6. Clarify and update SREC-only participation guidelines and registration forms on the NJ Clean Energy Program website within 6 weeks of program plan approval.
7. Registration for rebate-eligible and SREC-only projects. The program will track and regularly report on the number and capacity of new applicants. The program will also track and report on the status of any SREC-Only caps or limits that may be established by the Board. These may include removing the outdated references to CORE rebate program guidelines for SREC-only participants, changes to the entity cap provisions for the SREC-Only Pilot, or modifications to the 2 MW limit for SREC-Only Pilot Program participants.
8. Monitoring policy development processes and informing the market of key outstanding questions and decisions (e.g. additional securitization of REC revenue streams, or changes to eligibility requirements or entity caps for the SREC market).

In addition, the REP program includes market development and acceleration activities further described in the section on Marketing & Communications.

Planned Program Implementation Activities for 2009

Program year 2009 represents a clear transition to the new structure for delivering solar market incentives. New market entrants that are not able to be funded with existing REP program budgets will rely on the new market development initiatives proposed below for program year 2009. Sound communications and outreach to existing customers will be critical to provide access of information and options for participation in renewable and energy efficiency programs available through the NJCEP.

Program Priorities in 2009

REP will have five major areas of focus for program operations in 2009:

1. Approve and complete the highest possible volume of REP projects subject to available budget.
2. Implement three annual funding cycles for solar rebates.

3. Support the transition to the new solar market structure in New Jersey. REP will develop program support and administrative services for these new market structures, and help current and future market participants understand their options.
4. Solar electric systems have accounted for 96% of total CORE rebates and close to 90% of the capacity installed through the program. While the dominant share of solar as compared to the other eligible technologies will continue in 2009, the plan also includes enhanced market development activities designed to increase wind and biomass participation.
5. REP will continue efforts to increase the level of integration between the renewable energy and energy efficiency components of the New Jersey Clean Energy Program portfolio. This includes tiered incentives based on whether facilities have received an efficiency audit.
6. Market development and training components of the program will be expanded and increased to accelerate development of wind and biomass markets.

Implementation Activities

REP will support the following program implementation activities in 2009:

1. Provide new funding approval for projects as available funding permits.
2. Conduct 30 training/technical workshops designed to address most critical training needs based on market conditions and inspection results. Topics for 2009 are expected to include:
    a. Effective project development and financing in the SREC/SACP market;
    b. Training for North American Board of Certified Energy Practitioner (NABCEP) certification tests; and
    c. Workshops to facilitate networking of project hosts, developers and financiers.
3. Support transition to SREC-only model for large solar electric systems. REP program operations, including new project registration and inspections, will be consistent with prior SREC-Only program operations, to provide market continuity and administrative efficiency.
4. Actively promote and support development of non-solar REP projects utilizing $15 million of new 2009 non-solar rebate funding.
5. Implement a tiered incentive structure to encourage small residential projects to participate in the Home Performance with ENERGY STAR Program or Residential New Construction Programs.
6. Continue support for information system enhancements that:
    a. Enable electronic application forms for the 2009 rebate program.
    b. Provide frequent program status tracking for program participants and contractors.

   c. Provide a platform for enhanced market reporting on installations and new solar generation for both the REP and REC programs.
   d. Provide web-based market data (e.g. installed costs, manufacturer market shares; geographic portrait of installation activity).

7. Initially continue to provide 100% inspection of all rebated projects while establishing a Quality Assurance (QA) system to be phased in during 2009 that will provide a sampling approach to inspecting completed systems (described in more detail below).
8. Present program and market information on the REP program at regional and national renewable energy forums.
9. Maintain communications with stakeholders through monthly renewable energy committee meetings, proactive program communications and information dissemination through web.

Activities that have been part of the SREC-only Pilot and REC Facilitation Programs will continue in 2009, and be integrated with other REP activities:

1. Process up to 150 new SREC-Only project registrations.
2. Offer inspection and initial project verification for projects wishing to participate in the SREC-Only market.
3. Facilitate the registration of ~1,600 completed REP projects into the SREC trading system.
4. Perform a sample based annual site verification visits of about 300 projects (including CORE and SREC-Only Pilot projects completed prior to 2009) to read meters and identify issues in system performance.
5. Coordinate REC program IT infrastructure with the REP program database, in order to facilitate REC account setup and ensure data consistency between the two programs.
6. Evaluate and recommend strategies to coordinate and/or integrate the REC program with PJM's Generation Attribute Tracking System (GATS), in order to unify REC tracking processes and requirements for all New Jersey RECs.

Quality Control Provisions

All renewable energy systems facilitated through the REP program must be installed in accordance with program equipment requirements, program performance requirements, manufacturer specifications, and provisions of the National Electrical Code. In 2009, the program will require an on-site program inspection for a portion of the installed projects to insure that these program requirements have been achieved and that the system as installed matches the system proposed in the application.

Currently, Quality Control (QC) serves as a check to ensure specific parameters of a renewable energy installation have been achieved, including:

- Installer registration process, including three demonstrated successful installations and an HIC license for residential applications
- Inspection Process, where all installed RE systems require an inspection and a PASS status

During 2009, the Quality Control process will begin a transition to a Quality Assurance process. Quality Assurance (QA) defines processes that ensure quality standards using efficient and cost effective mechanisms, including:

- Certification process, which will require program and technical training and certain insurance requirements
- Inspection process, in which there will be a migration of system inspections from 100% to random selection of <100%
- Monitoring and evaluation process, including monitoring and evaluation to provide feedback, and actionable measures resulting from evaluation

The QA system will be initiated in 2009. In 2009, the program will prepare the industry with QA protocol design, training and communication.

Solar Technology Technical Support & Quality Control

To qualify under the proposed incentive structure, certain program requirements must be met. These requirements are verified through a QC process which requires program inspections for all REP applicants prior to an issuance of a rebate payment. This QC process insures that equipment requirements, warranty requirements, manufacturers' recommendations, and system performance requirements are being met. These requirements are detailed below:

Equipment Requirements

All major system components must be new, and not have been placed in service at any previous site. Major system components include, but are not limited, to:

- Solar electric (photovoltaic) modules
- Inverters

All major system components must be Underwriters Laboratory ("UL") listed (or another nationally recognized testing lab) and comply with the requirements detailed in the technology-specific Technical Worksheets.

Warranty Requirements

Program QC inspections insure that systems meet program warranty requirements, which stipulate that eligible systems must be covered by a warranty during a five-year period on all major components of the system against breakdown or degradation in electrical output by more than 10% from their originally rated production.

Manufacturers' Requirements

Program QC inspections insure that systems are installed in accordance with manufacturers' warranty requirements and that the system is operates in an efficient and effective manner.

Performance Requirements

To qualify for an incentive, the default output of a solar electric system, as estimated and verified by the program inspector using PVWATTS, must be *at least* eighty percent (80%) of the default output of a reference design system (with no shading, southern orientation, latitude tilt, and other PVWATTS default de-rate parameters). Systems expected to produce below eighty percent (80%) of the reference system design output do not qualify for an incentive. REP program inspections insure that systems meet this performance requirement with the following steps:

- Verify that equipment (module and inverter, manufacturer, model, and quantity) qualifies for participation in the program and is as specified on the inspection work order form. This ensures the program collects accurate data regarding fielded equipment and that rebates are properly calculated. The inspection work order form prompts inspectors to verify these items.
- Verify tilt, orientation, and shading on each array. This ensures that program systems obtain required performance standards and collect accurate data relevant to estimating system production, a function performed by the SREC Administrator, and for verifying compliance with minimum design standards.
- Analyze expected performance using PVWATTS or, when shading is a factor, with Solar Pathfinder and Solar Pathfinder Assistant software. This also ensures the program collects accurate data relevant to estimating system production.
- Verify system operates properly. If the system is not running, the inspector turns it on to verify proper operation, considering the availability of sunlight at the time of the inspection. Systems that are locked and cannot be turned on will fail the inspection.

Solar Technical Training

Technical Training is mandatory to participate in the program as a certified trade ally. Technical Training is offered periodically throughout the course of the year, and will be geared to particular stakeholder groups or to a particular solar technology.

The REP is planning 12 solar technical training sessions scheduled for 2009, to provide

detailed instructions and examples of administration and technical program changes and to review the new program forms and application requirements.

Wind Technology Technical Support & Quality Control

Since January 1st, 2008, the CORE Program wind rebate has been based on an Expected Performance Based Buy-down (EPBB). To qualify under the proposed incentive structure certain program requirements must be met regarding program equipment certification, application technical review, program performance requirements, and adherence to manufacturers' recommendations.

These requirements are verified through provision of technical support during two stages: an up-front application process, and a QC process which requires program inspections for all REP applicants prior to an issuance of a rebate payment. The technical support during the application process and the QC process are detailed below:

Application Technical Support

The estimated performance based buy down calculation method is designed to provide incentive levels comparable to the previous rebates for systems installed at sites with a good, ~11 MPH, average annual wind speed. The EPBB rebate is calculated according to the first year estimated annual output, providing greater incentives to systems expected to have higher energy output. The required inputs from new applicants include technical review of a site's wind resource at fifty meters (from the three available wind resource maps), evaluation of the proposed hub height for the turbine, and technical evaluation of the turbine being proposed. With this information, technical staff will estimate the annual output and calculate the estimated incentive amount.

Equipment Requirements

All major system components must be new, and not have been placed in service at any previous site. Major system components include, but are not limited, to:

- Wind Turbine
- Inverters

All major system components must be Underwriters Laboratory ("UL") listed (or another nationally recognized testing lab) and comply with the requirements detailed in the technology-specific Technical Worksheets.

Warranty Requirements

Program QC inspections insure that systems were installed in a manner in which program warranty requirements are met. Program warranty requirements stipulate that eligible systems must be covered by a warranty on all major components of the system against breakdown or degradation in electrical output for a period of five years.

Manufacturers' Requirements

Program QC inspections insure that systems are installed in a manner consistent with manufacturers' requirements. This insures that the system is installed in accordance with program warranty requirements and that the system is operates in an efficient and effectively manner.

Performance Requirements

To qualify for an incentive, the default output of a wind electric system, as estimated and verified by wind program calculator. REP program inspections insure that systems meet this performance requirement with the following steps:

- Verify that equipment (turbine and inverter, manufacturer, model, and quantity) qualifies for participation in the program and is as specified on the inspection work order form. This function ensures the program collects accurate data regarding fielded equipment and that rebates are properly calculated. The inspection work order form prompts inspectors to verify these items.
- Verify location and orientation for wind turbine. This function ensures that program systems obtain estimated performance standards and collect accurate data relevant to estimating system production, a function performed by the REC Administrator, and for verifying compliance with minimum design standards.
- Verify system operates properly. If the system is not running, the inspector turns it on to verify proper operation, considering the availability of wind at the time of the inspection. Systems that are locked and cannot be turned on would be assigned a fail status. The inspector also is required to verify that the system performs as required under system trips.

Wind Technical Training

Technical Training is provided to inform and instruct program stakeholders, and will be offered periodically throughout the course of the year. Trainings will be geared to particular stakeholder groups or to a particular renewable energy technology.

The Renewable programs have 8 wind technical training sessions scheduled for 2009. Two are dedicated to provide detailed instructions and examples on the new rebate calculation methods, to review program turbine qualifications, and to review the new program forms and application requirements. Two training sessions are dedicated to municipal stakeholders to assist in their adoption of wind projects. And four training sessions will be dedicated to further developing the wind site assessor community.

Biopower Technology Technical Support & Quality Control

To qualify under the proposed incentive structure, certain program requirements must be met regarding program equipment certification, application technical review, program performance requirements, and adherence to manufacturers' recommendations.

These requirements are verified through provision of technical support during two stages: an up-front application process, and a QC process which requires program inspections for all REP applicants prior to an issuance of a rebate payment. The technical support during the application process and the QC process are detailed below:

Application Technical Support

The application must be reviewed for a feedstock determination, equipment evaluation, primary mover and power train evaluation. With this information, technical staff will determine the appropriate incentive amount.

Performance Requirements

To qualify for an incentive, the biomass system must meet certain performance requirements. REP program inspections insure that systems meet this performance requirement by:

- Verify that equipment qualifies for participation in the program and is as specified on the inspection work order form. This function ensures the program collects accurate data regarding fielded equipment and that rebates are properly calculated. The inspection work order form prompts inspectors to verify these items.
- Verify system operates properly. The inspector must verify that all biomass systems are producing power. Systems that are running and cannot be turned on would fail. The inspector also is required to verify that the system performs as required under system trips.

Biomass Technical Training

Technical Training is provided to inform and instruct differing program stakeholders, and will be offered periodically throughout the course of the year. This training is geared to particular stakeholder groups or to a particular renewable energy technology.

The REP has eight biomass technical training sessions scheduled for 2009. Two are dedicated to provide detailed instructions and examples on the new rebate calculation methods, to review program qualifications, and to review the new program forms and application requirements. Two training sessions are dedicated to municipal stakeholders to assist in their adoption of biomass projects. And four training sessions will be dedicated to further developing the biomass project development community.

REC Technology Technical Support & Quality Control

All renewable energy systems facilitated through the REC Verification program must be verified to be in accordance with RPS requirements in order to generate RECs. This function is performed by the program implementation team for all in-state verifications.

To qualify under the REC market structure, certain requirements must be adhered to regarding fuel, equipment, and process requirements. These requirements are verified through a QC process which requires program inspections for all in-state REC generation applicants. The verification process may require a determination of fuel sustainability, equipment verification, verification of system process and performance requirements and verification of system production.

SREC Technology Technical Support & Quality Control

Solar projects installed without rebates will no longer be required to be inspected in 2009, except for those projects supported by utilities and other initiatives that require inspections as a part of financing securitization. REP will provide timely market analysis of SREC trading data in 2009. Data integrity and QC for SREC trading data will remain the responsibility of the SREC trading platform (expected to be PJM-EIS-GATS in 2009 and beyond).

Annually, a sample of solar systems is chosen for an audit to verify system performance in the generation of SRECs. Some of the systems in the sample are selected randomly, and some are selected because they are either showing much greater or less production than expected based on system parameters. These audits consist of site visits in which verification of system generation is recorded and compared to reported generation numbers. The data are passed to the SREC administrator for analysis, and may be used to true up production estimates for those systems using estimates.

Budget

The total REP rebate budget for 2009 is approximately $42.52 million. This includes solar rebates through three funding cycles. The detailed 2009 Renewable Energy budget is attached in Appendix B.

2009 REP Rebate Budget Summary

	($Million)	**Estimated MW (new approvals)**
Bio Power – Rebates	$7.500	4.000
Wind – Rebates	$7.500	7.250
First Refusal	$4.122	3.711
New Market Activity (three cycles)	$23.402	15.813
Solar – Rebates	$27.524	19.524
Total	**$42.524**	**30.774**

Goals and Renewable Generation

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

- 1,800 MW solar
- 200 MW onsite wind
- 900 MW Biomass

In 2009, the REP Program supports the goals outlined in New Jersey's Renewable Energy Portfolio Standards (N.J.A.C. 14:4-8):

RPS Percentage Requirements for 2009

Energy Year	Solar Electric	Class I Renewable Energy	Class II Renewable Energy	Total Renewable Energy
June 1, 2008- May 31, 2009	.16%	3.84%	2.5%	6.5%

Program Goals

Program performance incentives will be associated with the following goals for 2009:

- Biopower and Wind MWh based on forecast tied to incentive budget
- Higher participation in NJCEP efficiency programs by REP residential participants
- Implementation of three funding cycles for solar rebates
- Provide regular reporting to inform markets on progress toward SREC and Class I resource requirements

2009 CleanPower Choice Program℠

Program Description

The main objective of the CleanPower Choice (CPC) Program is to provide an option for all New Jersey ratepayers to participate voluntarily in the growing renewable energy market. Specific program objectives include:

- Provide a statewide program to promote voluntary purchases of renewable energy, accessible to all New Jersey BGS and commercial customers.
- Stimulate the development of a voluntary market for renewable energy that complements the RPS compliance market, and supports the State's Energy Master Plan and other policy initiatives.
- Provide verification documentation for the product claims made by the Program.
- Lower market barriers for Clean Power Marketers and encourage their active involvement in the program.
- Engage local New Jersey communities in support renewable energy.

In August 2008, the BPU released authorization of Customer Account Lookup (CAL) for all third party suppliers, including Clean Power Marketers. This new provision will change the market dynamics by engaging the Marketers more directly in promoting the CPC program throughout the state. It is expected that CAL will drive enrollment rates beyond the level of this year's program.

The BPU/OCE has decided to put the CPC program in maintenance mode, and the proposed scope of work reflects this re-prioritization.

Program Goals for 2009

- Allow customer account look up and CPM initiatives to be the main drivers of the Program in 2009.
- Increase CPM investment through requirements for marketing plans, direct marketing initiatives and performance standards.
- Continue to provide reporting and feedback through quarterly reports and a REC verification report.
- Continue to integrate CPC with broader community energy initiatives.

Target Market & Eligibility

The program targets all retail electric customers of the State's four investor-owned electric utilities. Clean power sales in the voluntary program must be renewable energy that is not otherwise used to meet a supplier's RPS requirements and includes full disclosure of the power supply mix utilized by the suppliers participating in the program.

Offerings & Customers

Since its launch in October 2005, the voluntary program has allowed customers to select from multiple product offerings. The products have consisted of wind, small hydro, New Jersey solar and landfill methane resources. Current products all consist of wind and small hydro, and one of the products is 100% New Jersey wind. All of the offerings are a percentage of electric use products. As of July 2008 one of the CPMs products is 100% of electric usage, which cost approximately $14.00 extra per month, based on an average residential customer's electric use. The other two offer 15% of electric usage products estimated to cost either $4.94 or $5.78 per month respectively. These costs are in addition to the customer's basic generation service monthly cost.

2009 Program Implementation Activities

The following activities are recommended in a scaled-down program.

1. Program Administration, including basic customer service and call center:
    a. Provide Call Center to support program; maintain information used by call center staff in responding to callers' inquiries; provide public representation of the program in appropriate forums.

2. Data Collection, Analysis and Reporting:
    a. Customer enrollment data (from bill inserts/enrollment forms)
    b. Quarterly CPC reporting (4/year)
    c. REC verification report (annual)

3. Marketing Support:
    a. Provide branding guidelines for use by the clean power marketers and EDCs in producing semi-annual bill inserts to promote the program (may be completed in 2008)

Proposed Program Design Changes

- Allow customer account look up and CPM initiatives to be the main drivers of the Program in 2009.
- Continue integration of CPC with broader energy initiatives

Quality Control

The products offered by the Clean Power Marketers must be verifiable as renewable energy that is not otherwise used to meet a supplier's RPS requirements, and must also include full disclosure of the power supply mix utilized by the suppliers participating in the program. Verification ensures that each CPM has purchased sufficient quantities and eligible types of RECs to meet its program obligations to customers. New Jersey's Solar Renewable Energy Certificate (SREC) program is used for verification of New Jersey solar RECs. PJM-Environmental Information Services (EIS) Generation Attribute Tracking System (GATS) is used for verification of non-solar Class I and II RECs.

CPMs are required to provide the market managers with an annual verification report showing the number of participating customers (by utility territory), the CPC renewable energy obligation by territory and the retirement of RECs necessary to meet their total obligations. These reports are verified with the GATS and/or Clean Power Market reports and utility records.

Budget

The budget for the basic program administration is just under $327,000, which includes basic program management, call center and customer service support, and reporting. Additional program support is not recommended, since the program is being put into maintenance mode, and clean power marketers will be taking on the primary responsibility of marketing their offerings to customers. Budget detail is provided in Appendix B.

Goals and Renewable Generation

The Clean Power Choice program is designed to contribute to the development of the voluntary market for renewable energy—additional renewably generated electricity over and above the levels electric service providers are required to procure to meet mandatory RPS obligations.

The original target for participation in the CPC program was 2% of the ratepayer base, approximately 72,000. In 2007, the OCE established a more realistic short term Program goal of 1% of retail electricity customers, or about 36,000 participants.

At the end of 2007, there were about 15,000 enrollments. Through June 2008, enrollments are up by about 1,100. Based on this trend and new marketing by the CPMs, enrollment in 2008 is expected to be about 2,200, for a cumulative program total by the end of the year of about 17,200.

With the proposed program structure, a marketing push by the CPMs now that customer account look-up has been approved, and the considerably more difficult economic environment than in prior years, the goal for 2009 is an additional 1,425 enrollments, for a total of 18,625.

Appendix A - 2009 Residential and Renewable Marketing Plan

Executive Summary

To support New Jersey's **Clean Energy** Program and reach the goals of the New Jersey Energy Master Plan to reduce energy use 20% and increase renewable energy 20% by 2020, the Program staff is planning a 2009 marketing 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
3. Increase awareness and participation of New Jersey residents in current and future energy efficiency and renewable energy offerings
4. Leverage opportunities of New Jersey Community Partners, Green NJ Resource Team, and local community leaders to increase grassroots community involvement in available services
5. 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. Leverage every opportunity and point of customer engagement through cross-marketing between all residential energy efficiency and renewable programs
6. Work with utilities, regional and national agencies (EPA and DOE), local and national stakeholders, and trade allies (manufacturers and distributors) to cross-promote and market services where applicable
7. 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
8. Help increase workforce development and economic growth opportunities in the energy efficiency and renewable energy industries
9. Demonstrate the value of New Jersey's **Clean Energy** Program to combat rising energy prices and help mitigate climate change, and meet the Energy Master Plan goals.

Key Creative and Communications Elements

1. Continue to identify and enlist New Jersey residents that are successfully participating in the programs. Other testimonial considerations include using local community leaders such as mayors, legislators, council members, county freeholders, and New Jersey **Clean Energy** Award recipients.
2. Explore development of a New Jersey Clean Energy Documentary incorporating all of New Jersey's **Clean Energy** Programs to showcase New Jersey's efforts

and available services to homes and businesses. A 15-minute documentary, including modular segments of one to two minutes, can be used on the web, at public meetings and engagements, for broadcast news sponsorships and public service announcements.

3. Incorporate and promote New Jersey's Energy Master Plan theme of *20% by 2020* to include the revitalization (energizing) of at least 20,000 existing homes through Home Performance with ENERGY STAR, construction/rehab of 20,000 ENERGY STAR Homes, 220,000 Clean Power Choice participants, etc, each year. Inspire and increase community awareness and social commitment to reach these goals through grassroots community outreach and coordination with national EPA Change the World, Start with ENERGY STAR campaign.
4. Further engage BPU commissioners to promote New Jersey's **Clean Energy** Programs (process to be determined), as well as New Jersey's Energy Master Plan theme of *20% by 2020*. Promote each of the commissioners as experts and champions for the different programs by more deeply involving them in events and community opportunities to increase program participation.
5. Maximize the community power and influence of the Community Partners to increase participation in energy efficiency and renewable energy programs. For example, recruit and challenge each Community Partner to set a goal for their community to participate in Home Performance with ENERGY STAR in 2009 to help meet annual goal and set an example for the state on what can be done to reduce climate change through residential energy efficiency. These homes and their stories can be featured in advertisements, public relations/media outreach, and web success stories.
6. Revitalize retail stores with **Clean Energy** program information, positioning the state as a consumer resource for greater savings through energy efficiency and renewable programs.
7. Leverage utility communications and activities with New Jersey residents through bill inserts, newsletters, bill messaging, web linkage, and other community outreach and joint program promotions.
8. Continue to pursue increased coordination with On-Line Home Energy Analysis to direct residents immediately to an appropriate program for increased participation.
9. Continue to enhance the web site with additional information, success stories, and resources to encourage action of New Jersey residents and businesses.
10. 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 team to conduct and produce as part of the marketing program:

Marketing/Advertising Campaigns

- Campaign development to promote programs identified by Honeywell Market Manager team
- Creative concepts created and pitched to client
- Inclusion of media buy recommendation and placements
- Development and production of print and broadcast advertisements.
- Technical review with Honeywell Market Manager team prior to review and approval by BPU
- Inclusion of NJCEP and BPU brand as part of advertising
- 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.

Event Management

The Market Manager team will continue to define and prioritize events in cooperation with the BPU. There are two types of events: 1) newsworthy media events that will help increase awareness and participation in the programs; and 2) local community or trade organization requests for participation in speaking engagements or tabling. 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.

A. Media Events

Event Selection and Implementation

- Prioritize, recommend and select opportunities to plan events in conjunction with Program Managers and BPU to highlight program activities, e.g. review CORE rebates over $100,000.
- Once opportunities are selected and approved by BPU, contact organization to initiate planning of events (up to six market manager initiated events per year).
- Coordinate with BPU to select appropriate Commissioner or BPU surrogate.
- Provide BPU with relevant project and program fact sheets to assist in talking point development *(BPU staff will develop talking points, utilizing fact sheets on programs and project details provided by market managers).*
- Conduct 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 Public Information Officer).
- Attend Program press events with Commissioner to ensure coverage of Program and Commissioner.

Given the large number of event requests anticipated in 2009, the Honeywell Market Manager team will work with the BPU to prioritize and set limits on the number of events

initiated and managed by the team per year. For example, we can select up to six prominent media events per year that the Honeywell Market Manager team initiates and manages from start to finish based on potential newsworthiness agreed upon by BPU and Market Manager team. Suggestions for these events should be presented to the BPU Marketing Administrator and the PR 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 on the weekly public relations call. 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. In the months with heaviest volume (October Energy Awareness Month for example) this could be has high as 8 to 10 events per month. Normal activity should range between 4-6 events per month. BPU Communications staff will able to assist with these events should Market Manager staff be unavailable.

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.

B. Public/Community Events

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

- Conduct review of whether the proposed event is within the scope of Market Manager work during weekly Public Relations meeting.
- If not within scope of Market Manager work, forward to BPU for speaker's bureau or other opportunity. If no speaker is available, printed materials such as the summer/winter tip cards may be supplied by the Market Manager.
- If within scope of recommended events based on mutually agreed upon criteria, follow above process.
- Continue to work with the BPU to be more selective regarding participation at public events to help use time and personnel resources efficiently to support greater awareness and participation in the programs.

Media Relations

- Identify opportunities to promote programs through news media.
- Write press releases or media pitches, and conduct technical review before BPU receives draft copy.
- Maintain media lists; identify press outreach lists used by BPU.

- Conduct thorough media outreach to help secure placement. Confirm with BPU regarding its media outreach to ensure that efforts are not duplicated.
- Provide the BPU with an annual public relations calendar with topics to be promoted each month.
- A final copy of any program-related press releases distributed will be provided by the BPU.

An integral part of the marketing program is an agreed upon public relations calendar for promotion of programs on a monthly basis to best meet timely, seasonal and opportunistic needs year-long. Given the finalization of the Energy Master Plan, it's recommended that we conduct a marketing summit to review with the BPU its needs and expectations for 2009. Our goal will be to develop and execute a comprehensive marketing communications program, collectively with all Market Managers, BPU and the Program Coordinator.

We also suggest conducting media training for Commissioners, community partners, Green NJ Resource Team, and program staff to brief them on 2009 programs. The training will help prepare them for upcoming events and provide an opportunity to review any questions they may have for consistent messaging and media protocols according to BPU guidelines.

Written Materials

- Create fact sheets on all program areas, updated on a monthly basis to ensure accuracy. This will include statistics on program progress to date.
- Conduct all technical review before providing to BPU on a monthly basis.
- Work with Program Coordinator to store all updated program fact sheets in the press room of the NJCleanEnergy.com web site for easy posting and access.

Educational and Promotional Materials

- Create brochures, public service announcements, pamphlets that contain a larger message of how residents can take small steps to be more energy efficient and/or invest in renewable energy.
- Conduct all technical review before providing to BPU.

Educational materials are an integral part of the marketing plan. The 2009 plan includes an "all inclusive fact sheet" that would promote all of the programs. We can work to include low-cost, no-cost "tips" as part of the overall marketing plan while still promoting the specific programs. A contingency budget for 2009 is included to help afford any special communications requests or campaigns that the BPU would like to develop and execute.

The Honeywell Market Manager team recommends the completion of a one-page creative brief with BPU staff at the start of each 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. This outline can be completed by email or phone with BPU staff and sent to the BPU afterward to confirm specifics of renewable energy or efficiency assignment.

Co-op Advertising Program

- Implementation of co-op advertising program for Home Performance contractors and NJ ENERGY STAR Homes builders
- Processing of co-op advertising incentive applications based upon eligibility requirements. The payments to the vendors for approved projects will be processed from the Rebates budget.
- Assistance to participating contractors and builders with advertising and sales tools.
- Application and participation in EPA's co-op advertising program.

Direct Mail Program

- Implementation and execution of direct mail program for consumers—Home Performance with ENERGY STAR.
- Assistance with program communications to trade allies regarding program announcements.
- Recruitment for trade ally events and conferences.

Digital Communications—Web

- Updating program information and lists of participating trade allies.
- Providing web banners for special promotions.
- Creating web enhancements, i.e. visual tours for Home Performance with ENERGY STAR and New Jersey ENERGY STAR Homes.
- Creating case studies for testimonials to be used on the website.
- Supporting efforts in weekly Web meetings.

Industry Conferences and Trade Ally Events

- Pursue development and implementation of NJ-based ACI Conference or training sessions for home improvement, new construction and solar contractors. Inclusion of recognition/awards program for Home Performance contractors and NJ ENERGY STAR Homes builders.
- Preparation and presentation at trade ally recruitment events, training meetings and conferences for Home Performance contractors, HVAC contractors, builders and solar installers.

- Preparation and presentation for community partner meetings and trainings.
- Support to New Jersey's **Clean Energy** Conference, including but not limited to speaker recommendations, leadership award review, etc.
- Communications and participation in national and regional EPA, NEEP and DOE events.
- Preparation of applications for industry awards.

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, NJ ENERGY STAR Homes. Includes incentive forms, rebate applications, store signage, bag stuffers, qualifying products list, educational brochures and fact sheets.
- Production of home buyer educational kit and customer surveys for NJ ENERGY STAR Homes and Home Performance with ENERGY STAR.

Market Manager Meetings

- Hosting and preparation of weekly Public Relations calls.
- Hosting and preparation of annual Marketing Summit meeting.
- Weekly and/or biweekly meetings 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 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
- Response to requests for program statistics or inquiries
- Annual recap books of all marketing materials produced

Marketing Plan Development and Management

- Strategic planning and development of annual program marketing plans and filings
- Preparation of annual program marketing and contract modification budgets
- Cross-marketing and cross-promotion of programs—community partnerships, call center, web, on-line survey, utility communications and joint promotions

The Honeywell Market Manager team will work with BPU to develop an annual tactical marketing plan and calendar after the annual Marketing Summit meeting in December 2008, similar to what was constructed last year showing the activities per program and by month to help ensure agreement on deliverables and expectations, especially given the formal introduction of the Energy Master Plan. This will provide the opportunity for the BPU to help plan a year-long schedule with appropriate themes and messaging month to month, season to season, to help leverage all communications activities.

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.

Invoicing Process

In 2009 the Market Managers will be required to submit one invoice for fixed marketing and another for variable marketing for the residential and renewable energy programs, effective January 2009. In preparation, the BPU, Program Coordinator and Market Managers will conduct a review of sample invoice to help ensure that all expectations are met for format and required supporting documentation and back-up.

The fixed portion of the Market Manager invoice will cover the following activities:

Account Management

- Program Marketing Management and Oversight
- Communication with OCE/BPU/PC/Utilities/Other Agencies via meetings or conference calls
- Facilitation and Management of Co-Op Programs and interaction with the Green NJ Resource Team members
- Financial Administration
- Reporting
- General Office Administration
- Office Space Expenses including Phones, Computers, Fax, Copying etc
- Office supplies including program stationary, forms, envelopes, etc
- Program Apparel
- Preparation and submission of award nominations including materials, copying and mailing costs. This does not include winner recognition expenses such as awards, trophies, plaques and recognition presentation materials, which may be submitted under variable and will require BPU approval.
- Corporate Overhead
- Postage for regular business operations

- Travel
- Membership Dues, Newsletter Fees, etc.

Strategic Direction

- Strategic Planning
- Marketing Plan Development and Execution

Call Center

- Call Center Briefings on marketing initiatives including FAQ's, current campaign information, training as required.

Website

- Support of external sites such as the on-line energy audit tool, CleanPower Markets and the on-line application forms for ENERGY STAR Products. If there is direction from the BPU to make changes to those sites (such as the header or footer, those costs may be submitted as variable expenses).
- 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.
- Banner Development
- All copy development and organization of respective sections of the website and applicable portions of other website sections. This includes input and support for direction and content of the site.
- Provide quarterly newsletter content
- Attendance at weekly website calls
- Timely response to emails submitted to the website

Public Relations

- Media Outreach & Follow-Up
- Media Events (press events, ribbon cuttings, check presentations, etc). This include planning, coordination and execution - all event logistics) Development of press kits, talking points, etc., for internal staff or BPU staff
- Press Release development and distribution to appropriate lists
- Clipping Service
- Costs relating to production and duplication of audio/video tapes (dubs), off-line editing, duplication of media, digital links or b roll or other types of similar services will be considered variable.
- Media Hit Reporting
- Media Buying and Tracking (Media Management)

- Demonstration Home/Open House Events
- Outreach and Education
- Promotional Contest development, management, and prizes, when prize fulfillment is provided by Market Manager; e.g., Home Performance audit.

Event Support

- All costs related to larger trade shows/events and sponsorships specifically identified in 2009 Marketing Plan. These are shows that are typically attended year after year. Expenses for additional events identified by the BPU will be covered under variable. (Labor will always be a fixed cost unless it is a special, additional request such as a national trade event for an initiative approved by the BPU under the contingency budget.)
- Marketing support and staff for speaking engagements, press events, open houses, stakeholder meetings, trade ally meetings, Community Partner support, educational workshops, lunch & learns, etc. including but not limited to program presentations, event materials/handouts and registration fees.
- Conference/meeting attendance and expenses, including monthly meeting fees such as NJ Builder Organization Meetings or other trade ally networking groups.

Creative Services

- Creative development of all marketing materials and program identity pieces including but not limited to program stationary, labels, easel backs, POP displays, forms, case studies, testimonials, customer or trade ally materials, fact sheets, direct mail, brochures, promotional materials, video, special event signage, lawn signs, trade show booth or banner development.
- Development and management of Co-Op marketing offers, including management of the offer, approval of submissions, and monitoring of contractor adherence to co-op guidelines.
- Any technical writing services that require consultation and expertise beyond the Market Manager team will be submitted to BPU for prior approval as a variable expense.

Variable Costs

The variable marketing budget is intended to cover those costs that vary directly associated with the program goals and marketing production needs. It also will have a contingency component relating to opportunities not identifiable at this time. There will be no markup on variable marketing expenses. Examples of appropriate variable marketing expense include:

- Paid Media (print/broadcast/on-line). Media invoices will be required to attach a proof of performance, such as broadcast affidavit and copies of media invoices.
- Overnight Delivery Costs or Other Delivery Costs – these extra costs should be utilized prudently and only when necessary.
- Actual printing or production costs for marketing materials including trade show displays, banners, signage, bill inserts, applications, brochures, forms, any printed materials supporting the programs.
- Other production expenses, such as video production, photography, both from stock/subscription sites and specific sites/subjects, as well as technical writing, when such services are provided by external consultant or production company.
- Direct mail campaigns, including list purchase, postage, mail-house costs and printing.
- Public relations expenses must be approved in writing by BPU Marketing Administrator prior to the event.
- Event expenses, such as onsite photographer, special equipment rental/purchase, such as microphones or tents, podiums, tables, chairs, easels, and sound systems, may be submitted under variable, unless it is one of the events in the 2009 schedule.
- Purchase of promotional items. Promotional items should be approved in writing by the BPU Marketing Administrator prior to purchase. This includes home show give-aways, specialty advertising items and premiums, as well as recognition awards for BPU-sponsored awards programs, such as trophies and plaques
- Website projects. These projects should be approved in writing by the BPU Marketing Administrator prior to commencement.

Recognizing that there may be unanticipated requests from the BPU throughout the year that were not accounted for in the budget planning process, a contingency budget of $375,000 has been established for renewable energy and energy efficiency services. Such requests must be approved in writing by the BPU Marketing Administrator.

Billable costs associated with additional work products under the contingency budget would include BPU approved expenditures for sponsorships, trade show exhibits and materials, media placements, materials, and advertising creative development and production expenses. Labor, coordination, travel and attendance expenses will be budgeted and reviewed with BPU to review and prioritize against existing work schedule and deliverables. Based on mutual agreement, additional resources may be needed to meet the BPU needs and these labor costs and associated expenses may be billed under variable expenses.

Program Marketing Plan Summaries

Each program has a complete description in the program plan filing. Following are the marketing plan summaries extracted from the program plans for each residential energy efficiency program. Currently, the renewable energy programs (CORE and SREC) are in transition to a market-based delivery approach. The Renewable marketing plan is for this newly developed program, Renewable Energy Program (REP) and Clean Power Choice (CPC).

Residential New Construction 2009 Marketing Plan
New Jersey ENERGY STAR Homes
(program description in plan)

Target Audiences:

- Primary: Consumer - Residential Home Buyers of single family homes and townhomes, customer or production.
- Secondary: Business (Trade Allies) -- Builders and developers of new and gut rehab custom and production single family homes, small/midsize multifamily buildings (up to six stories), townhomes, affordable housing; developers/investors who finance residential new construction projects, realtors, architects, and subcontractors.

Program Goals and Objectives:

To meet the challenges of a slow residential new construction housing market, increased code standards, reduced builder incentives, and proposed efficiency/incentive tiers to reward high performance homes, and transition to a market-based, home energy rater network, the following program strategies and tactics are being proposed:

- Integrated consumer marketing program, including advertising, public relations, special events, and online promotion to build awareness and consumer demand.
- Builder financial incentives and increased promotion of co-op marketing program.
- Carbon footprint label for high performance homes.

Creating consumer awareness and demand will continue to be critical in 2009 to:

- Encourage builders to exceed ENERGY STAR guidelines given potential increase in state building code to current ENERGY STAR guidelines.
- Differentiate builders in the growing "green building" consciousness of consumers.
- Increase consumer awareness and demand of high performance homes for both economic and environmental benefit.
- Achieve 27% of the total New Jersey permits issued 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) with commitments to build to the NJ ENERGY STAR Homes program standard within two years of enrollment.
- Achieve 28% of total New Jersey Certificates of Occupancy for qualifying residential new construction types (single family, townhouse, and multi-family) certified to the NJ ENERGY STAR Homes program standard in the current year.
- Train builders, subcontractors, architects, and/or other key trade allies on program

elements and aspects that will improve the energy efficiency, performance and sales of homes they design and build.
- Develop a network of market-based home energy raters that will assist builders in meeting the technical guidelines and provide testing, inspections and certifications.

2008 Accomplishments & Lessons Learned

- Cooperative advertising program with incentives ranging from $10K-$50K, was implemented in 2008, providing assistance to builders for promoting their qualifying projects.
- Response to marketing efforts, e.g., BPU speakers, mailings, advertisements, event presence, continues to generate awareness and interest among state residents, as evidenced by higher call volumes and web hits, coinciding with key efforts.
- Public relations efforts, including media open house events and press interviews with BPU staff, residential customers and builders, have increased visibility of the program and its value.
- Customer satisfaction has been high with customers agreeing to participate in testimonials to support advertising and public relations efforts.

2009 Marketing Strategies – Homebuyers

- Attract media attention to relevant projects and associated savings realized by residents.
- Continue to build awareness of program and benefits through targeted advertising programs. Drive consumer demand for energy efficient homes.
- When appropriate, leverage community partner relationships to help educate builders, town officials, and residents on program and benefits.
- Explore opportunities to work with residential realtors to promote New Jersey ENERGY STAR homes.

2009 Marketing Strategies – Builders

- Continue to build relationships with residential builders through educational seminars and training to increase higher performance building practices and to cultivate a new, Green Workforce.
- Promote business-building tools; .e.g., training, co-op advertising, technical assistance, sales support and materials for builders, home energy raters, and realtors.

Key Consumer Messages

- New Jersey ENERGY STAR Homes provide a lifetime of savings, comfort, and value.
- Energy efficiency helps lower energy costs, increase affordability, increase durability, and improve health and safety.
- High performance homes reduce impact on the environment.
- Independent third-party testing and certification provides peace of mind and confidence in the home building/buying decision-making process.

Key Builder Messages

- Differentiation in the marketplace by building high performance homes that are third-party tested and certified to use less energy and provide greater value.
- Improved building practices and technologies help create homes that perform better for greater customer satisfaction, and reduce call backs and builder liability.
- Be a part of the solution for sustainable living to help combat global warming

Tactics Rationale

Public Relations/Media Outreach. Media outreach and events have proven very successful in garnering news media attention through open house tours, press releases, case studies, success stories, testimonials, BPU commissioner presentations, and feature stories focusing on energy and financial savings, new technologies (solar), and environmentally sound building practices. Given the decrease in new home construction and concern for "greener" buildings, it will be critical to feature NJ Jersey ENERGY STAR Homes in the media as the best choice for combating rising energy prices and climate change. We will continue to spotlight key residential developments, homes that feature new energy-saving technologies, renewable energy, and homes with high energy ratings for superior performance and reduced environmental impact, i.e., micro-load homes. Demonstration Home Tour events of champion builders and "greener" homes in the state will continue to secure print and broadcast media attention.

Advertising. As in 2008, we propose to continue targeted consumer advertising to help increase consumer awareness, education and demand for NJ ENERGY STAR builders. If customers understand the value of ENERGY STAR and why it's the best choice for new home construction, they will request it of their builder. Although homes sales are slow, it is important to maintain presence in the marketplace since customers may consider and prepare for building a new home two-five years in advance of breaking ground. The media selection will include targeted print advertising in major daily papers (real estate sections), and select lifestyle focused magazines and online advertising timed in early spring, summer and fall, as well as online banners on select geo-targeted web sites. We will continue to participate in EPA's co-op program to secure advertising

dollars to supplement state program advertising as value added. Trade advertising to builders is also conducted as part of home builder association events and sponsorships.

Events. For trade allies, the New Jersey ENERGY STAR Homes Program is an active member and sponsor of home builder association events including the Atlantic Builders Convention, Builders' League of South Jersey, Builder and Remodeler's Association of Northern Jersey, Community Builders Association, Shore Builders Association of Central New Jersey, New Jersey Builders Association, state events, including Governor's Conference on Housing and Development, New Jersey's **Clean Energy** Conference, and industry events, such as ACI-NJ's Home Performance Conference. This year's ACI conference featured New Jersey's first Recognition and Awards program to honor leading builders and contractors in the state participating in New Jersey's **Clean Energy** Program™. We plan to include a similar Awards program in 2009. These events secure awareness and participation from trade allies, builders and contractors to support the construction of high efficiency homes. The program also participates in a variety of community home show events to represent the portfolio of residential energy efficiency programs available to New Jersey residents.

The following events and sponsorships are recommended for New Jersey ENERGY STAR Homes in 2009:

Affordable Comfort Inc. (ACI) Conference
Atlantic Builders Convention
Builder's League of South Jersey
Builder and Remodeler's Association of Northern New Jersey (BRANNJ)
Community Builders Association (CBA)
EPA Change the World
Global Green Expo
Governor's Conference on Housing Development
NJ Builders Association
NJ Clean Energy Conference
NJ Conference of Mayors
NJ League of Municipalities
Shore Builders Association of Central New Jersey
Southern NJ Development Council
US Green Building Council (USGBC) – NJ Chapter
USGBC – NJ, North Jersey Chapter
USGBC – NJ, Central Jersey Chapter
USGBC – NJ, South Jersey Chapter

Direct Mail/Email. Direct mail and digital communications (email) is a cost-effective method for reaching potential consumers in the marketplace who are building a new home. Using database marketing with select demographic/psychographic criteria, lists of potential and current home buyers can be used for direct marketing by mail or email to increase awareness of the program's feature and benefits with a strong call-to-action for

more information by phone or web. For the current and prospective builders and trade allies direct mail and email is regularly used to communicate program progress, special events, workshops and any changes in program guidelines.

Collateral. A variety of sales and educational materials have been created for the program for both consumers and builders. Additional materials are planned for 2009, including updated consumer and builder brochures, educational fact sheets, table-top displays for events and builder sales offices, posters (reprints of testimonial ads), banner stands for public events, reprints of homeowner welcome kit, technical training guides and information packages for builders and contractors, as well as promotional items for give-aways at events e.g., pens.

With the development of a market-based home energy rater network in 2009, we will need to create a portfolio of recruitment and training materials to encourage participation from existing home improvement contractors, home performance contractors and remodelers. In 2009, independent home energy raters will be responsible for working with builders on technical specifications, conducting inspections and providing certifications. This provides a great opportunity for contractors to expand their business opportunities and develop an additional business line.

Web Promotion/Enhancements. The web site has significant opportunity to be further developed as a promotional and educational resource. In 2008, the New Jersey Clean Energy web site enhanced the residential new construction section with a "virtual home tour" that takes the viewer on an animated walk-through of an ENERGY STAR Home, as well featuring a variety of New Jersey home sites statewide. The virtual tour is also being leveraged and used by builders on their sites as part of the co-op advertising program. In 2009, we plan to continue to expand the site to include additional consumer and builder success stories, as well as educational information. In 2008, we included a comprehensive builder training guide as a technical resource and will continue to build a technical library for trade allies. We'll continue to build the success stories section with testimonials, as well as promote special offers that may be of interest to new home buyers, i.e. lighting, clothes washers, as well as links to other products and services.

2009 Marketing Opportunities

- Convergence of significant economic and environmental concerns: rising energy prices, dependence on foreign energy sources, and climate change that can be remedied through energy efficiency.
- Increased awareness of green and sustainable living practices, and impact of carbon footprint reduction.
- Greater awareness of residential indoor air quality, health and safety issues for better living.
- Promotion of New Jersey's draft Energy Master Plan to reduce energy use 20% by 2020.

2009 Marketing Challenges

- The current economic uncertainty may suppress numbers of ENERGY STAR home sales, particularly if residents are not well educated on the benefits of such homes.
- Awareness of ENERGY STAR homes among realtors and residential home buyers/builders remains relatively low.
- Reduced builder incentives, particularly in an uncertain housing market, may limit the numbers of new projects initiated in 2009.
- Overcoming negative feelings about program among builders/developers because of delays in incentive payments.
- Due to resource constraints, the team will be carefully evaluating events according to performance metrics, including but not limited to projected event attendance and cost, as compared with other events. Events that cannot be supported by the Market Manager team will be referred to the OCE Speaker's Bureau for review.

Residential New Construction: Consumer Marketing Objectives, Strategies, and Tactics

Objective	Strategy	Tactics
Market Awareness	Attract media attention to relevant projects and associated savings realized by residents.	• BPU Commissioner Champion presentations • Case studies/success stories • Issue press releases following significant project completions • Submit story ideas to relevant reporters/media (energy, lifestyle, business, environmental)
Market Awareness, Market Education	Continue to build awareness of program and benefits through targeted advertising programs.	• Secure/utilize customer testimonials • Research media effectiveness, refine schedules for print, broadcast, web • Educational collateral • Enrich web site with more information
Market Awareness, Market Education	When appropriate, leverage community partner relationships to help educate residents on program and benefits.	• Case studies, where relevant • Speaking opportunities • Community Partner events
Realtor Participation	Explore opportunities to work with residential realtors to promote New Jersey ENERGY STAR homes.	• Direct mail/email • Educational collateral • Promotional items • Event exhibits/materials/speaking opportunities

Residential New Construction: Builder/Developer Marketing Objectives, Strategies, and Tactics

Objective	Strategy	Tactics
Developer awareness and education on program, Developer participation, Allied Industry/Trade training	Continue to build relationships with residential builders.	• Trade advertising, featuring case studies of successful builders/developers • Sponsor/exhibit trade events and training workshops; e.g., Atlantic Builders Convention, Builders League of South Jersey, Governors Conference on Housing and Development, ACI, Builder & Remodelers Association of Northern Jersey, Community Builders Association, Shore Builders Association of Central New Jersey • Continue to promote builder co-op program • Educational collateral/ training; e.g., information on State energy code, ENERGY STAR standards, micro load homes, super ENERGY STAR homes, participate in green building programs, Green Workforce, development of home energy rater network • Issue press releases following significant/ unique project completions; e.g., NJ micro load home • Submit story ideas to relevant reporters/media
Developer awareness and education on program, Developer participation, Allied Industry/Trade training	Promote business-building tools; .e.g., training, co-op advertising, technical assistance, offered by residential builders.	• Sponsor trade events and training workshops; e.g., Atlantic Builders Convention, etc. *See above.* • Direct mail/email • Educational collateral • Promotional items

Home Performance with ENERGY STAR 2009 Marketing Plan
(Definition of Home Performance is in the implementation program plan)

Target Audiences:

- Primary: Consumer – Owners of 1-4 family residences, that are 15+ years old; small multi-family buildings without elevators.
- Secondary: Business (Trade Allies) – Insulation, HVAC, home improvement and remodeling contractors.

Program Goals and Objectives:

- Educate consumers about "whole house" solutions to reduce energy use, control energy costs, and mitigate climate change, as well as increase comfort, health and safety.
- Help meet New Jersey's Energy Master Plan goal to reduce energy usage 20% by 2020.
- Increase program activity, number of participating customers, comprehensive of each job in order to accelerate this market transformation initiative and support the delivery of market-based services.
- Support restructured program delivery system that includes—Tier 1: lower cost home assessment; installation of up to 10 compact fluorescent bulbs; Tier 2: based on Tier 1 assessment, up to eight hours of air sealing services to the customer free of charge, along with recommendation for other appropriate energy efficiency improvement services under Tier 3 of the program.
- Differentiate BPI Accredited Contractors to spur competition in marketplace and increase energy efficiency services in the home improvement market.
- Increase workforce development efforts to expand job opportunities in the energy efficiency industry.
- Enlist the services of Commissioners to be our champions in encouraging consumers to improve the energy efficiency of their homes through Home Performance with ENERGY STAR.

2008 Accomplishments & Lessons Learned

- As of 8/11/2008, 320 home assessments were entered into the program software, resulting in 43 approved projects and 60 projects completed.
- As of 7/24/08, 40 accredited companies and 69 contractors became BPI certified and were supporting the program.
- Program staff began offering in-home assessments in February 2008 for $250 per assessment, and to date has completed over 260 assessments.
- Several large contractors became accredited in 2008, supporting the program's credibility and increasing its reach.

- One utility, NJ Natural Gas, has enthusiastically supported the program by matching the state's $250 incentive for work completions.
- To increase program activity, significant program changes and delivery of services are being proposed for 2009 to include: 1) lower-cost assessments; 2) air sealing services for eligible homes at no charge; and 3) provision of comprehensive services with financial incentives of up to 50% (up to $5,000) for home energy improvements.
- Response to marketing efforts, e.g., speaking engagements, direct mail, broadcast advertisements, event presence, continues to generate awareness and interest among state residents, as evidenced by higher call volumes and web hits, coinciding with key efforts.
- Public relations and media outreach efforts, including, CNN, Caucus NJ, ABC-TV, WMGM TV, radio interviews with residential customers and print feature stories, have increased visibility of the program and its value.
- Customer satisfaction is high for services provided, with most customers agreeing to provide testimonials for success stories that have been used in advertising efforts both print and online.
- The Community Partners Program offers a powerful vehicle for introducing Home Performance with ENERGY STAR to town leaders and its residents to help secure greater participation at a local level by engaging an entire community.
- Greater consumer awareness and education is needed to create demand and meet contractor expectations for increased sales leads, production and profits. This program is in its infancy, both in New Jersey and nationally and requires increased promotion and education.
- Home Performance with ENERGY STAR is a viable solution to meet the goals of New Jersey's Energy Master Plan, combat rising energy prices, and help mitigate global warming.

2009 Marketing Strategies – Homeowners

- Promote revised program changes: low-cost assessment at $125; air sealing for eligible households (up to 8 hours at no charge); financial incentives for additional eligible measures, along with incentives provided by New Jersey utilities (New Jersey Natural Gas, PSEG, South Jersey Gas—see below).
- Attract media attention to relevant projects and associated savings realized by residents.
- Continue to build awareness of program and benefits through targeted advertising, including direct mail, select print and radio advertising, and online promotions. Complete Energy Makeovers in areas of low participation for use in marketing promotions.
- Leverage community partner relationships, as well as opportunities with council members, county freeholders, and mayors, to help educate residents on program and benefits.

- Leverage relationships with 2500+ participating HVAC contractors of Warm Advantage/Cool Advantage Programs to encourage participation in promotion of Home Performance improvements to their customers.
- Encourage home performance contractors to participate in NJ ENERGY STAR Homes as a home energy rater to increase business opportunities in the energy efficiency industry.
- Cross-promote Home Performance services to completed HVAC customers, recipients of ENERGY STAR product incentives, and residential solar customers.
- Focus direct marketing efforts on communities with high rates of home ownership and environmental awareness; e.g., Morristown, Maplewood, Summit.
- Explore new home owners (purchasers of existing homes) as a target segment, along with realtors.
- Introduce Home Performance with ENERGY STAR as an employee benefit/offering to businesses participating in the commercial/industrial programs.
- Promote financial incentives at all income levels with greater emphasis on assisted Home Performance in lower income areas, subject to income qualification.
- Cross-promote with utilities offering home improvement programs; i.e., New Jersey Natural Gas, South Jersey Gas, and PSE&G.
- Enhance the information and tools of njcleanenergy.com web site to increase awareness and participation.

2009 Marketing Strategies – Contractors

- Increase financial incentives to contractors for delivery of assessments, reimbursement for CFL installations (up to $20), reimbursement for air sealing services in eligible homes (up to $1,000), and up to 10% of total work scope (up to $1400).
- Increase financial incentives for co-op marketing (up to $20,000) for eligible advertising to leverage advertising efforts.
- Continue to build relationships with large contractor organizations and seek champions to lead and provide role model for other contractors; i.e., to help build a Green Workforce.
- Promote benefits of BPI-certification and home performance work to contractors' businesses, particularly in northern New Jersey, where the ratio of Home Performance contractors to targeted residents is lower.
- Showcase leading, participating contractors in public relations and media outreach.
- Promote business-building tools; e.g., cooperative advertising, training, offered by NJCEP to Home Performance contractors.
- Explore ways of measuring Home Performance leads provided to contractors by NJCEP in order to concretely illustrate the financial value and winning business models of the Home Performance program to contractors.

Key Consumer Messages:

- Greater energy/money savings with whole-house solutions to combat rising energy prices
- Awareness of climate change solutions that can be made in every home
- Availability of significant financial incentives and low-interest financing to invest in home energy improvements
- Prevention of health/safety problems (threat of carbon monoxide poisoning in homes due to improperly installed/maintained fuel-burning equipment and appliances)
- Greater peace of mind and confidence in knowing that services are provided by trained, certified Building Performance Institute Accredited contractors

Key Contractor Messages:

- Competitive advantage; differentiation and distinction of BPI accreditation in marketplace in providing greater customer confidence
- Benefiting from being a part of a Green Workforce
- Platform for business and services expansion, offering technical training and support
- Financial incentives and marketing assistance

Tactics Rationale

Public Relations/Media Outreach. The program to date has benefited tremendously from outreach to the media. Through press releases, case studies, success stories, testimonials, story ideas for combating rising energy prices and climate change, and media events, focusing on homes undergoing a home energy makeover through Home Performance with ENERGY STAR. Based on past experience, as well as experience in other markets, these tactics provide the opportunity for wide-scale program awareness in a credible, cost-effective manner. In addition to reaching potentially large audiences, they provide specific examples of solutions for both contractors and home owners. Having the solutions presented by a third-party; e.g., journalist, also offers greater credibility to the program and the benefit of New Jersey's Clean Energy Program.

Advertising. Part of a market transformation program includes an integrated consumer education and awareness program that may include print, broadcast, and online advertising, as well as contractor co-op advertising. Given that Home Performance with ENERGY STAR is a relatively new service, both in New Jersey and nationally, strong, consistent customer education is necessary to help define what Home Performance

service is, what is a BPI-certified contractor and what differentiates them from other contractors, and illustrate the financial, health, safety and environment impacts of participation. Based on past experience, as well as experience in other consumer service categories, these tactics provide the opportunity for wide-scale program awareness and interest. However, given the change in program structure proposed for 2009, the funds previously used for broad-based customer education through advertising is being used to cover the cost of consumer and contractor incentives. The advertising in 2009 will be limited to select online, radio or print advertising to support direct mail and community outreach efforts.

Events. Public events vary in size and format, but they offer the opportunity to build awareness and educate a target audience. Customer education may take place through one-on-one discussions, product demonstrations, speaker presentations, literature distribution, energy education contests and sweepstakes. Attendance at community events has enabled Home Performance staff to meet and explain the program to key community and neighborhood influencers for local presentations and recruitment of participants. Based on past experience, events, when chosen carefully, offer the opportunity to cost effectively build awareness and interest among targeted audiences. Events may include home shows, community events, trade events, training workshops, and product manufacturer events.

The following events and sponsorships are recommended for Home Performance with ENERGY STAR in 2009:

NJ Flower Show
NJ Conference of Mayors
Global Green Expo
Lakewood Blue Claws
Affordable Comfort Inc. (ACI) Conference
Governor's Conference on Housing and Development
EPA Change the World
New Jersey Clean Energy Conference
New Jersey League of Municipalities

Direct Mail/Email. Direct mail and email, as well as referral programs, offer the opportunity to very specifically target a program offer to an audience. Targeted direct mail provides awareness, education, specific offer and strong call to action to a specific select customer group that is likely to participate based on specific criteria—homeowner of residence 15+ years older with high energy costs, and have expressed in or have participated in energy efficiency programs. From previous experience, as well as experience in other consumer product/service categories, direct mail has shown its effectiveness as a lead generation tool. Critical success factors include a list that reflects analysis of the demographic/psychographic/past buying characteristics of respondents. The program offer, response incentive, and creative may also have significant impact on

response. The 2009 plan includes increased direct mail working in cooperation with utilities, as well as through targeted list purchases.

Collateral. Collateral may include printed sales or educational literature, as well as promotional items. Collateral is used to educate the target audience on a program or service offering, and sales collateral may also drive response through toll-free number and online. Collateral typically provides more detailed program information, as compared with an advertisement. Given the changes proposed for 2009, updated sales collateral material will need to be created. It may include brochures, flyers, fact sheets, and promotional items. Each varies in the level of information provided. Based on past experience, collateral is essential to describe program availability and details on participating.

Web Promotion/Enhancements. Proposals include a resource center for contractors in order to provide one-stop shopping for relevant program information. Another tool would be an online calculator, where a contractor could see, based upon the numbers of leads provided, the estimated value of those leads to the contractor company's bottom line. Based upon past experience, as well as experience in other product and service categories, such tools may effectively support contractor loyalty and retention. Tracking mechanisms are also being explored in order to secure better performance metrics from specific outreach activities.

For the consumer, digital communications provide the ability to increase awareness and education of available services, showcase success stories, provide a visual tour of common house problems and recommended solutions, promote special offers and incentives, and link to other related products and services.

2009 Marketing Opportunities

- Convergence of significant economic and environmental concerns: rising energy prices, dependence on foreign energy sources, and climate change that can be remedied through energy efficiency.
- Increased awareness of sustainable living practices and their impact on carbon footprint reduction.
- Greater awareness of residential indoor air quality, health and safety issues for better living.
- Promotion of New Jersey's Energy Master Plan to reduce energy use 20% by 2020.

2009 Marketing Challenges

- Despite available financial incentives for contractor and consumer, Home Performance project work may involve significant investment on the part of the home owner, particularly in times of softening housing prices and rising consumer debt.

- PSE&G is planning a similar program for home assessments, targeting home owners in Newark and Trenton. PSE&G will essentially compete with the state in these two areas, and this may result in some marketplace confusion. It will be critical to work jointly with PSE&G to help benefit both programs.
- The Marketing team is exploring more ways to track response to specific campaigns, such as extension numbers appended to 1-866-NJSMART and Internet landing pages.
- Due to resource constraints, the Marketing team will be carefully evaluating events according to performance metrics, including but not limited to projected event attendance and cost, as compared with other events. Events that cannot be supported by the Market Manager team will be referred to the OCE Speaker's Bureau for review.

Home Performance with ENERGY STAR: Consumer Marketing Objectives, Strategies, and Tactics

Marketing Objective	Strategy	Tactics
Market Awareness	Attract media attention to relevant projects and associated savings realized by residents.	• Case studies/success stories/Energy Makeovers • Issue press releases following significant project completions in a community • Submit relevant energy saving/seasonal story ideas to relevant reporters/media
Market Awareness, Lead Generation, Contractor Participation	Continue to build awareness of program and benefits through mass market advertising programs.	• Secure/utilize customer testimonials • Research media effectiveness for targeted advertising • Exhibit/present at key residential/home owner events • Educational collateral • Promotional items • Web
Market Awareness, Lead Generation	Leverage community partner relationships to help educate residents on program and benefits.	• Case studies, where relevant • Event exhibits/materials, speaking opportunities • Direct mail/email • Education collateral • Promotional items
Lead Generation	Leverage relationships with 2500+ HVAC contractors to promote Home Performance improvements to their customers.	• Direct mail/email • Collateral • Promotional items
Lead Generation	Cross-promote Home Performance services to completed HVAC, Product and Solar customers.	• Direct mail/email • Sales collateral • Web
Lead Generation	Working with utilities, focus direct marketing efforts on homes with high rates of energy consumption.	• Direct mail/email • Case studies, where relevant • Web
Lead Generation	Promote financial incentives at all income levels.	• Direct mail/email • Collateral • Web

Home Performance with ENERGY STAR: Contractor Marketing Objectives, Strategies, and Tactics

Objective	Strategy	Tactics
Expand overall supply & geographical representation of service availability	Continue to build relationships with large contractor organizations.	• Sponsor trade events and training workshops, including ACI, as well as product manufacturer events • Continue to promote contractor co-op program • Online resource center for contractors
Expand overall supply & geographical representation of service availability	Promote benefits of BPI-certification and home performance work to contractors' businesses, particularly in northern New Jersey, where the ratio of Home Performance contractors to targeted residents is lower.	• Sponsor trade events and training workshops, including ACI • Continue to promote contractor co-op program • Direct mail/email • Collateral • Online tool to estimate monetary value of leads
Expand overall supply & geographical representation of service availability	Promote business-building tools offered by NJCEP to Home Performance contractors.	• Direct mail/email • Contractor Portal/Online resource center • Online tool to estimate monetary value of leads

HVAC 2009 Marketing Plan

(program description in program plan)

Target Audiences:

- Primary: Consumer – Owners of single family homes and small multi-family buildings
- Secondary: Business – HVAC contractors

Program Goals and Objectives:

- Increase consumer awareness and purchase of high efficiency heating and cooling equipment—gas space and water heating equipment, central air conditioners, heat pumps, and solar water heaters.
- Increase consumer education about proper maintenance procedures to help secure energy savings and longevity of equipment.
- Process 15,600 central air conditioner and heat pump equipment correct sizing and efficient equipment incentive applications statewide.
- Develop a central air conditioning and heat pump maintenance pilot to help optimize the efficiency of systems by correcting common installation problems and to secure long term system performance and savings of existing central air conditioning systems. Secure a minimum of 100 and up to 400 participants in a pilot of a new program component to offer maintenance services to existing central air conditioning systems.
- Launch duct sealing pilot is to identify and reduce loss of conditioned air (Heating and cooling) and thereby maximize the performance efficiency and comfort of the entire residential HVAC system. The goal is to secure 100 participants in a pilot of new program component to offer duct sealing services.
- Introduce quality installation verification (QIV) pilot program for quality heating/cooling equipment installation that optimizes operating efficiency at time of installation.
- Train 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, and assist with the State's workforce development efforts.
- Help meet New Jersey's Energy Master Plan goal to reduce energy usage 20% by 2020.

2008 Accomplishments & Lessons Learned

- As of 8/2008, there are 2,500+ HVAC contractors that support the program.
- The Warm and Cool Advantage programs are trending ahead of goal, and expected to increase in 2009 given rising energy prices.
- There is high consumer interest in these programs, based on call center volumes and web hit rates.
- Most consumers participate in the program through referral and recommendation by participating contractor.
- Press releases with seasonal tips and program offerings sent during the heating and cooling seasons have highlighted the Cool Advantage and Warm Advantage programs and have stimulated awareness and interest in the programs.
- Media outreach during "hot days" and "cold days" have spurred broadcast and print media attention.
- Greater consumer awareness and education is needed to create not just demand for the equipment, but to inform consumers on the importance of proper installation and maintenance of the equipment by a participating HVAC program contractor or an Accredited Home Performance with ENERGY STAR contractor.
- Began integration of HVAC Program with Home Performance with ENERGY STAR for more comprehensive, "whole house" solutions.

2009 Marketing Strategies – Homeowners

- Educate consumers about high efficiency heating (gas furnaces, boilers, water heaters) and cooling equipment (central air conditioning systems, heat pumps) to drive demand through contractors.
- Educate consumers on the need for proper installation and sizing of heating and cooling systems, as well as the maintenance of these systems and duct sealing to maximize performance. Promote duct sealing and maintenance pilots.
- Leverage seasonal public relations messaging to grow consumer interest and to show how consumers can contribute to 20% energy reduction by 2020. Work with community partners, as well as local officials, such as mayors and council members, to educate consumers on the need to participate.
- Build awareness of program and benefits through advertising programs, including online and broadcast (radio).
- Promote HVAC programs with Home Performance programs.
- Leverage relationships with 2500+ participating HVAC contractors of Warm Advantage/Cool Advantage Programs to promote proper installation, duct sealing and maintenance services to their customers.
- Cross-promote HVAC services to completed recipients of ENERGY STAR product incentives, residential solar customers and Home Performance with ENERGY STAR participants.
- Promote financial incentives on equipment.

- Enhance the information on njcleanenergy.com web site to increase awareness and participation.

2009 Marketing Strategies – Contractors

- Continue to build relationships with large contractor organizations and seek champions to lead and provide role model for other contractors.
- Promote benefits of BPI-certification and home performance work, as well as home energy rating system, to HVAC contractors' businesses.
- Showcase leading, participating contractors in public relations and media outreach.
- Promote business-building tools; e.g., Green Workforce training, co-op advertising, offered by NJCEP to HVAC contractors.
- Leverage industry networking—upstream and downstream—manufacturers, distributors and contractors.

Key Consumer Messages:

- Correctly sized and properly installed, high efficiency systems connected to well designed and sealed duct systems will save energy and perform better for greater comfort and savings for years to come.
- Routine quality maintenance is an important factor in keeping your HVAC system running properly.

Key Contractor Messages:

- Increase sales, reduce call backs, differentiate your company and build long term relationships with customers by offering financial incentives, quality installations, and comprehensive maintenance service programs to maintain system performance.
- Build your business by participating in Home Performance with ENERGY STAR to expand service offerings, i.e. insulation and air sealing services. Helping consumers Go Green can grow your business.

Tactics Rationale

Public Relations/Media Outreach. An effective public relations program includes press releases, case studies, success stories, testimonials, seasonal story ideas, commissioner presentations, and consumer guide features to help customers make informed decisions on equipment purchases. Seasonal heating/cooling features with how-to's for buying a system and hiring a contractor to perform quality installations, along with "Hot Days" promotion during high-temperature periods in the summer, with specific broadcast and

public relations messaging in peak temperature periods. Similarly, focusing on ways to save warm and how to maintain, upgrade or replace a heating system is an important winter message.

Advertising. Historically, the HVAC program has not conducted separate advertising; however, it has been promoted through New Jersey's Clean Energy Program umbrella advertising campaign which included broadcast and print. However, advertising for the program was anticipated in 2008 based on contract modification approval. It would incorporate a retail advertising strategy, focusing on radio and print during heating/cooling seasons to promote incentives and direct customers to toll-free number and web site for more information and list of participating customers.

In 2009, we would also like to consider a co-op advertising program for participating contractors, similar to the co-op program available for Home Performance with ENERGY STAR contractor and ENERGY STAR builders. It would provide incentives to contractors, distributors and product manufacturers to promote high efficiency equipment and the New Jersey Clean Energy Program. In addition, working cooperatively with gas utilities in joint promotions of programs and incentives will continue in 2009.

Events. The program currently participates in several types of trade networking and training events, primarily focusing on contractors, distributors and manufacturers. Program sales promotion and communications with manufacturers, distributors and supply centers helps to increase awareness and participation of contractors.

The program is also represented at community events and part of Clean Power Community Partner communications. More opportunities exist in working with the community partners to expand consumer awareness at the local level.

The following events and sponsorships are recommended for HVAC in 2009:

NJ Conference of Mayors
Global Green Expo
Affordable Comfort Inc. (ACI) Conference
EPA Change the World
New Jersey Clean Energy Conference
New Jersey League of Municipalities

Direct Mail/Email. New Jersey's On-Line Home Energy Analyzer tool, provided to customers at no charge, offers a simple, cost-effective way to engage and inform potential customers of energy efficiency services. When customers complete the on-line survey tool they are provided a report of recommended improvements and available program services to help reduce energy use. The on-line survey participants are encouraged to take the next step and contact a participating contractor, or they can call or visit the web site for more information. Other program services are also cross-marketed in the rebate checks sent to participating HVAC customers.

For participating contractors and contractor associations, direct mail is used several times a year to inform contractors of eligible measures, incentives, program changes, and technical guidelines. To a lesser extent, digital communications are used, however, we are looking to increase the contractor email database and provide more regular communications with contractors.

Collateral. As in 2008, a variety of collateral materials will need to be produced to support the program. Materials include: updated educational brochures, application forms, point-of-purchase displays and "tips" sheets on purchasing/maintaining equipment at home improvement retailers, supply centers, as well as through contractor distribution to consumers. This will include information about Warm Advantage, Cool Advantage, Home Performance with ENERGY STAR, duct sealing, quality installation verification (QIV) and maintenance programs, as well as program identification materials. Materials will educate on how purchasing and maintaining equipment will support the goal of 20% energy usage reduction by 2020.

Web Promotion/Enhancements. The New Jersey Clean Energy web site will continue to be updated with information about qualifying models, incentive levels and technical requirements. The buyer's guide information about how to purchase new equipment, select a contractor, and access available rebates. The On-Line Home Energy Analyzer tool is critical in helping to direct customers to HVAC offerings. The web site will continue to include seasonal banners for promotion of equipment and incentives, as well as be a technical, informational resource for contractors.

2009 Marketing Opportunities

- Convergence of significant economic and environmental concerns: rising energy prices, dependence on foreign energy sources, and climate change that can be remedied through energy efficiency.
- Increased awareness of sustainable living practices and how the impact of carbon footprint can be reduced.
- Greater awareness of residential indoor air quality, health and safety issues for better living.
- Promotion of New Jersey's Energy Master Plan to reduce energy use 20% by 2020.

2009 Marketing Challenges

- Despite financial incentives, HVAC project work may involve significant investment on the part of the home owner, particularly in times of softening housing prices and rising consumer debt. Customers may delay purchase until system failure.
- Low consumer awareness of program services due to limited advertising.
- Need for increased promotion and referral by contractors—the main influencer in the customer's buying decision.

HVAC 2009: Consumer Marketing Objectives, Strategies, and Tactics

Marketing Objective	Strategy	Tactics
Market Awareness, Market Education	Educate consumers about high efficiency heating (Gas furnaces, boilers, water heaters) and cooling equipment (Central air conditioning systems, heat pumps).	• Exhibit/present at key residential/home owner events • Case studies/success stories • Submit relevant energy saving/seasonal story ideas to reporters/media • Educational collateral • Web
Market Awareness, Market Education	Educate consumers on the need for proper installation and sizing of heating and cooling systems, duct sealing, as well as the maintenance of these systems.	• Exhibit/present at key residential/home owner events • Case studies/success stories • Submit relevant energy saving/seasonal story ideas to reporters/media • Educational collateral • Promote maintenance pilot, duct sealing and QIV pilots • Web
Market Awareness, Demand Generation	Leverage seasonal public relations messaging to grow consumer interest.	• BPU Commissioner Champion • Case studies, where relevant • Event exhibits/materials, speaking opportunities • Press kit • Submit relevant energy saving/seasonal story ideas to relevant reporters/media
Market Awareness	Continue to build awareness of program and benefits through mass media advertising programs, including broadcast. Promote HVAC programs with Home Performance programs.	• Local advertising
Demand Generation	Leverage relationships with 2500+ participating HVAC contractors of Warm Advantage/Cool Advantage Programs to promote proper installation and maintenance services to their customers.	• Direct mail/email • Sales collateral • Case studies/success stories • Exhibit/speak at key events
Demand Generation	Cross-promote HVAC services to completed recipients of ENERGY STAR product incentives, residential solar customers and Home Performance with ENERGY STAR customers	• Direct mail/email • Case studies, where relevant • Sales collateral • Web
Demand Generation	Promote financial incentives on equipment.	• Direct mail/email • Collateral • Web
Market Awareness, Demand Generation	Enhance the information on njcleanenergy.com web site to increase awareness and participation.	• Case studies, where relevant • Educational collateral translated to web • On line incentive applications

HVAC 2009: Contractor Marketing Objectives, Strategies, and Tactics

Objective	Strategy	Tactics
Expand overall supply & geographical representation of service availability	Continue to build relationships with large contractor organizations and seek champions to lead and provide role model for other contractors.	• Sponsor trade events and training workshops, including ACI, as well as product manufacturer events to promote the Green Workforce • Direct mail/email through contractor associations • Collateral
Expand overall supply & geographical representation of service availability	Promote benefits of BPI-certification and home performance work to HVAC contractors' businesses.	• Direct mail/email • Collateral
Expand overall supply & geographical representation of service availability	Showcase leading, participating contractors in public relations and media outreach--trade.	• Sponsor trade events and training workshops, awards; e.g., ACI • Case studies, success stories • Develop awards program
Expand overall supply & geography representation of service availability	Promote business-building tools; e.g., training, offered by NJCEP to HVAC contractors.	• Sponsor trade events and training workshops, including ACI for program participation and workforce development • Direct mail/email

ENERGY STAR Products 2009 Marketing Plan
(Program description in Program Plan)

Target Audiences:

- Primary: Consumer – All, but sub-segments; e.g., purchasers of large appliances (refrigerators, dishwashers, clothes washers, room air conditioners, dehumidifiers), lighting, home electronics.
- Secondary: Business (Trade Allies) – Retailers, Manufacturers, Distributors, Community Partners, Environmental/community organizations participating in Creative Proposal Promotions

Program Goals and Objectives:

The purpose of the ENERGY STAR Products program is to increase consumer awareness and sales of high efficiency ENERGY STAR qualified lighting, appliances and windows. Program goals include:

- Achieve annual sales and distribution of 4+ million ENERGY STAR qualified CFLs in New Jersey.
- Provide at least 17,000 rebates for select high efficiency ENERGY STAR qualified clothes washers.
- Provide at least 10,750 rebates for ENERGY STAR qualified room air conditioners.
- Provide at least 2,500 rebates for ENERGY STAR qualified dehumidifiers.
- Secure 50% of retail store-fronts (i.e., 750+ stores) to participate in either co-op advertising or product incentive offerings.
- Help to develop and introduce new, energy efficient technologies for power management.
- Offer early retirement options for old, inefficient equipment that is still in operation.
- Coordinate and facilitate product recycling and disposal services to address consumer concerns about lifecycle environmental impacts.
- Help train and educate retailers about the features and benefits of ENERGY STAR qualified windows.
- Continue to offer NJ customers a customized online energy audit.

2008 Accomplishments & Lessons Learned

- As of June 2008, there were more than 10,000 rebate applications submitted for clothes washers, over 1,500 for dehumidifiers, and over 5,000 for room air conditioners, indicating strong progress toward 2008 goals.
- As of August 2008, through the ENERGY STAR Change-A-Light program, there have been over 34,000 pledges throughout New Jersey to replace standard incandescent light bulbs with CFLs.
- 2008 Change-A-Light totals are substantially up from 2007 totals, with the overwhelming majority of the volumes driven by corporations and utilities. Outreach to community partners, municipalities, and schools (non-college) led to significant contribution of City of Long Branch, Maplewood, and Red Bank Environmental Commission. Results may be viewed at the EPA website at http://www.energystar.gov/index.cfm?fuseaction=cal.showOrganizations. (To see results for all organizations across the state, select New Jersey under location, then click submit.)
- To date, the Change-A-Light program has driven 98,100 replaced bulbs, resulting in energy savings of 27,700,00 kWh, cost savings of $2,600,000 and savings in greenhouse gas emissions of 40,100,000 pounds.
- As of July 2008 the implementation of online rebate applications for clothes washers, dehumidifiers, and room air conditioners was complete.
- Rebates for dehumidifiers were introduced in 2008.

2009 Marketing Strategies – Consumers

- Continue to build awareness of ENERGY STAR products and benefits through retailer outreach and education, point-of-purchase consumer signage, events, mass media advertising, including broadcast, print, and online, as well as public relations media outreach.
- Leverage media outreach, particularly specialty publications that consumers may reference; e.g., Consumer Reports, PC World, with higher involvement purchases, such as computers, televisions, and large household appliances.
- Repeat successful Change-A-Light program in conjunction with national EPA Change the World campaign, focusing on organizations, such as large, NJ-based corporations, community partners, and utilities that have driven significant results.
- Promote safe compact fluorescent light bulb (CFL) recycling at Home Depots across New Jersey, as well as other locations. Include CFL recycling information (e.g., recycleabulb.com and Home Depot) in marketing materials and on the NJCEP website. Work with community partners and community officials; e.g., mayors, council members, to educate residents on program and how it supports the goal of 20% by 2020.
- Promote early retirement--removal and recycling--of old refrigerators and freezers (20,000 units). Encourage purchase of ENERGY STAR qualified models. Work with community partners and community officials; e.g., mayors, council members, to educate residents on program and how it supports the goal of 20% by 2020.

- Cross promote ENERGY STAR products with other New Jersey Clean Energy Program customers; e.g., renewables, Home Performance with ENERGY STAR (Improvement of existing homes), New Jersey ENERGY STAR Homes (Residential new construction), HVAC.
- Enhance the navigation, information, and tools at NJCleanEnergy.com to increase awareness and participation.
- Incorporate the turn-key marketing programs of the six "creative proposals" participants that will offer efficient lighting through on-line store and community-based outreach. See description below.

2009 Marketing Strategies – Retailers, Manufacturers, Distributors, and Lighting Partners (Creative Proposals Group)

- Continue to support retailer education programs and rebate programs with point-of-purchase materials, as well as online information.
- Support development and promotion of online store.
- Support companies and organizations providing "Creative" Proposals for lighting promotion and purchases. Examples include: One Change Porch Light Campaign, Green Market Fundraising (Schools), Energy Federation Inc. (EFI) Online Store, Health Light (Elderly/low income), Green Faith, and Techniart (Corporate)—see attached description
- Update retailer search capability on NJCleanEnergy.com.

Key Messages for Consumers:

- Best choice - Buy energy efficient ENERGY STAR qualified products to save money, energy, and the environment. Energy efficient products will help contribute to the goal of 20% energy usage reduction by 2020.
- Best price now - Incentives are available on select products during seasonal and year-long promotions.
- Safe recycling of CFLs and refrigerators is convenient and worthwhile.
- Early retirement of old, operating refrigerators and freezers helps reduce energy use significantly.

Key Message for Trade:

- Increase sales and market share - customers are looking for high-performance products that use less energy, without sacrificing comfort and convenience, and seek reliable sources.
- Differentiation in marketplace - be the "go-to" place for energy-efficient products.
- Improve customer service by educating customers and reinforcing good buying decisions.

Tactics Rationale

Public Relations/Media Outreach. The news media provides a powerful opportunity to increase public awareness and influence buying decisions, drive retail traffic and promote special events. Public relations efforts help reinforce all marketing and advertising efforts on both a regional and national level to create additional awareness, human interest, relevance, and a compelling story for the media to tell. A newsworthy, multifaceted public relations program includes press releases, case studies, success stories, testimonials, seasonal savings story ideas, promotion of financial incentives, and special media events. Based on past experience, as well as experience in other consumer product categories, these tactics provide the opportunity for wide-scale program awareness. It provides the opportunity to highlight specific examples of solutions for consumers, retailers, contractors, builders. Having the solutions and "energy-saving" tips presented by a third-party; e.g., journalist or news outlet, also offers greater credibility to the program and the benefit of New Jersey's Clean Energy Program.

Advertising. The advertising program includes print, broadcast, and online, as well as retailer co-op advertising with promotion of financial incentives to help increase product sales. As in 2008, the products program will feature testimonial style advertising using a New Jersey resident that made the ENERGY STAR choice with a high efficiency clothes washer. The creative approach kept the product promotion local and relevant to New Jersey residents. The message was strong in touting financial incentives ($50 or $75 rebate), energy, water and environmental savings, along with a strong call to take action visit local retailer, call toll-free number, or visit website for more information. The refrigerator/freezer retirement program will also require advertising—online and radio is recommended.

Events. Public events offer the opportunity to build awareness and educate consumers about ENERGY STAR products and learn of specific program offers and incentives for clothes washers, dehumidifiers and room air conditioners. Customer education may take place through one-on-one discussions, product demonstrations, speaker presentations, literature distribution, energy education contests and sweepstakes. Events will include home shows, community events, trade events, training workshops, and product manufacturer events.

The following events and sponsorships are recommended for ENERGY STAR Products in 2009:

NJ Conference of Mayors
Global Green Expo
EPA Change the World
New Jersey Clean Energy Conference
New Jersey League of Municipalities

Direct Mail/Email. Targeted direct mail provides awareness, education, with a specific offer and strong call to action to a select customer group that is likely to participate based on specific criteria. For example, to help promote the purchase of ENERGY STAR products, it is important to promote product offers to participants of Home Performance with ENERGY STAR who we know would benefit based on the needs of their home. Product offers can be included in rebate checks or in separate mailings.

Point-of Purchase Materials and Collateral: The retail sales floor provides the best opportunity to educate and influence consumers' buying decisions. While the advertising, web promotions and public relations outreach help draw customers into the stores, it's ultimately the retail setting that influences the final decision. Since 70% of the product purchase decisions are made on the retail floor at the point of purchase, we will continue to create visually stimulating educational materials that build the ENERGY STAR brand, maximize floor and shelf space, engage/influence the buying process and incorporate a call to action. The materials help enrich the shopping experience and empower customers to make informed product choices and be aware of rebate offers on select products. Point-of-purchase materials and sales/educational collateral includes brochures, fact sheets, retail point-of-purchase materials-rebate applications, in-store signage, product labels and clings, promotional items. Point-of-purchase materials generally include energy savings information, as well as a toll-free number and web site. Collateral typically provides more detailed program information, as compared with an advertisement, focusing on features, benefits, savings information as well as toll-free number and web address for more information or to take action

Web Promotion/Enhancements. The New Jersey Clean Energy web site provides a terrific opportunity to promote ENERGY STAR products and rebate incentives available for seasonal products like room air conditioners, as well as year-long incentives for clothes washers and dehumidifiers. Consumers often conduct product research online before making any buying purchases for relevant product information. The web site has been instrumental in supporting New Jersey's participation in the EPA's national Change-A-Light campaign, providing customers the opportunity to pledge online to change out incandescent bulbs with ENERGY STAR qualified lighting. In addition, the free Online Home Energy Survey provides customers the ability to analyze their home's energy usage and directs them to products and services that can help control energy costs. Starting in 2008, New Jersey residents will be able to purchase efficient lighting on line through Energy Federation, Inc. (EFI) as part of the creative proposals submitted this year. For the consumer, digital communications provide the ability to increase awareness and education of available services, showcase success stories, promote special offers and incentives, link to participating retailers, access online store and special offers offered by the turn-key organizations that will be providing community-based lighting offerings.

Examples of Creative Proposals being conducted in 2008—On-line and community-based outreach

Green Market Fundraising (GMF) has partnered with the NJCEP and plans to distribute ENERGY STAR CFL's to NJ consumers by holding school fundraisers and donation events. The focus for GMF will be to work with NJCEP Community Partners and coordinate distribution of CFLs at community events. GMF will help raise awareness of ENERGY STAR CFL technology, secure Change A Light pledges and provide information on other NJCEP energy efficiency programs.

OneChange/PorchLight has also partnered with the NJCEP to distribute ENERGY STAR CFL's "door to door" and also donate CFLs at Community Partner events. OneChange/Porchlight will educate and mobilize community volunteers across the state to donate a CFL to NJ residents in participating communities. Volunteers will carry the NJCEP energy efficiency program messages and stimulate direct community engagement to participation in other NJCEP programs.

HelpLightNJ is a group of New Jersey high school students volunteers who believe in helping others and helping the environment. HelpLightNJ will focus their distribution of ENERGY STAR CFLs to needy families at food pantries and help organizations, as well as senior centers. Their goal is to create change in the market, getting needy families and senior citizens to try energy saving light bulbs, and to inspire other high school students to make a difference and join their cause.

ENERGY FEDERATION (EFI) will provide NJCEP with an online store to purchase a wide variety of ENERGY STAR qualified lighting with convenient order and shipping process.

Greenfaith (with Globe Electric) will promote and distribute efficient lighting through religious organizations.

Techniart will work to distribute light bulbs through major employers.

The products program will work with these companies to help cross-promote these efforts with other renewable energy, residential and commercial/industrial energy efficiency programs. For example, commercial/industrial customers participating in Smart Start buildings may have interest in working with Techniart to provide efficient lighting to employees as a corporate benefit.

2009 Marketing Opportunities

- Convergence of significant economic and environmental concerns: rising energy and water prices, dependence on foreign energy sources, and climate change that can be remedied through energy efficiency.

- Increased awareness of sustainable living practices and impact of carbon footprint reduction; understanding that every home can make a difference with the products they use
- Increasing consumer awareness of steps that can be taken to use less energy, save money, and help the environment for better living at the community level.
- Promotion of New Jersey's Energy Master Plan to reduce energy use 20% by 2020.

2009 Marketing Challenges

- Despite financial incentives, ENERGY STAR products may cost more, a barrier, particularly in times of economic concern.
- Retail sales people who are significant information sources and influencers for consumers may not promote specific products without a financial incentive.
- Due to resource constraints, the Marketing team will be carefully evaluating events according to performance metrics, including but not limited to projected event attendance and cost, as compared with other events. Events that cannot be supported by the Market Manager team will be referred to the OCE Speaker's Bureau for review.

ENERGY STAR Products: Consumer Marketing Objectives, Strategies, and Tactics

Objective	Strategy	Tactics
Market Awareness, Market Education, Product Sales	Continue to build awareness of ENERGY STAR products and benefits through mass media advertising programs and events, including broadcast, print, and online.	• Research media effectiveness, refine schedules for print, broadcast, web on refrigerator recycling, if approved; select products that offer rebates; e.g., clothes washers, dehumidifiers, etc. • Exhibit/present at key residential/home owner events. • Educational collateral, retail point-of-purchase materials • Promotional items • Web
Market Awareness, Market Education, Product Sales	Leverage media, particularly specialty publications that consumers may reference; e.g., Consumer Reports, PC World, with higher involvement purchases, such as computers, televisions, and large household appliances.	• Case studies and testimonials • Submit relevant energy saving/product story ideas to relevant reporters/media • Seasonal messaging and "energy tips" • Neighborhood "Round-up" message for early retirement of refrigerators and freezers. • CFL safety--disposal and recycling
Product Sales	Repeat successful Change-A-Light program in conjunction with EPA Change the World campaign, focusing on organizations, such as large, NJ-based corporations and utilities that have driven significant results.	• Employee/onsite exhibit/sign up • Educational collateral • Sampling; e.g., free CFLs • Leveraging efforts of "creative proposals" • Encourage refrigerator/freezer turn-in
Market Awareness, Market Education, Product Sales	Promote safe compact fluorescent light bulb (CFL) recycling at Home Depots across New Jersey, as well as other locations.	• Work with Community Partners for safe recycling; e.g., co branded recycling bins • Advertising • Point of Purchase materials • Fact sheets (include CFL recycling information such as Home Depot and recycleabulb.com) • Web banner ads
Market Awareness, Market Education, Product Sales	Promote turn-in and recycling of old refrigerators and replacement with new, ENERGY STAR model.	• Applications/forms • Public relations outreach • Advertising • Point of Purchase materials • Web promotional banners
Market Education, Product Sales	Cross promote ENERGY STAR products with other program customers; e.g., renewables, HVAC, home performance, residential new construction.	• Direct mail/email/rebate inserts • Sales collateral • Leverage online store • Web promotional banners
Market Education, Product Sales	Enhance the navigation, information, and tools at NJCleanEnergy.com to increase awareness and participation.	• Update copy, incentives, provide additional links to information, etc. • Promote online store • Web promotional banners

ENERGY STAR Products: Retailer/Manufacturer/Distributor Marketing Objectives, Strategies, and Tactics Continued

Objective	Strategy	Tactics
Market Education, Product Sales	Continue to support rebate programs with point-of-purchase materials, as well as online information.	• Reprints • Update design and copy as appropriate, including for new products • Consider redesign rebate coupons to be self-mailing and postage paid at time of purchase to help reduce breakage rate
Product Sales	Support development and promotion of online store.	• Web page development • Online advertising: banner ads, paid search • Direct mail/email • Announce availability in NJCEP advertising
Market Education, Product Sales	Update retailer search capability on NJCleanEnergy.com.	• Direct mail/email • Banner advertising

Renewable Energy Programs

CleanPower **Choice Program**[SM]

The target audience for the CPC program consists of all New Jersey electric utility ratepayers who want to invest in renewable energy by paying a small premium on their electric bill, which is used to buy renewable energy certificates (RECs) from projects producing renewable energy.

Program Goals

With the pending implementation of customer account look, the marketing for this program will shift to the Clean Power Marketers. The Market Manager estimates that a reasonable goal for 2009 is an additional 5,000 enrollments. If this goal is met, total enrollment by the end of 2009 would be about 22,500.

Proposed Program Design Changes for 2009

- Support customer account look up and CPM initiatives to be the main drivers of the Program in 2009 in addition to the existing utility bill inserts.
- Transition the marketing responsibility to the CPMs. Review marketing plans and coordinate reporting activity through the CPC Program Manager.
- Provide timely reporting and feedback on program outcomes via participation in monthly CPM update and review calls.

Marketing and Communications

Marketing Support:

b. Support semi-annual bill insert production process for utilities and Clean Power Marketers
c. Support event participation and presentations through the CPC Program Manager depending upon availability
d. Support CPC Program through participation in the monthly Renewable Energy Committee meetings.
e. Maintain the content for the CPC area of the CEP website through the CPC Program Manager

2009 Renewable Energy Program

(includes partial program description from program plan)

Program Description

The Renewable Energy Program (REP) offers incentives and market services to New Jersey electric utility customers investing in eligible renewable electricity generation to offset onsite energy consumption using solar photovoltaic, wind, and sustainable biomass resources. The overarching objective of the REP program is to support the sustained and orderly development of vibrant markets for distributed renewable electric generation in New Jersey.

The New Jersey Energy Master Plan calls for the aggressive adoption of renewable energy technologies, reaching an overall goal of 20% by 2020, as defined in the New Jersey's Renewable Energy Portfolio Standards (N.J.A.C. 14:4-8).

There are a number of economic, technical and infrastructure barriers to the adoption of renewable technologies. REP strategies to reduce these market barriers include rebates (for eligible systems, described below) to make renewable energy investments more cost-effective by offsetting a portion of the initial installation cost.

The program also offers a number of market support services, including market development activities, consumer education and outreach, technical training, inspections, and the facilitation of registration for renewable energy credits.

In budget years 2005-2008, incentives for onsite renewable energy have been delivered in the form of rebates for all renewable projects less than 2 MW through the Customer Onsite Renewable Energy Program (CORE). Despite being associated with funding constraints and long waiting times in queues, the CORE program has achieved remarkable success in establishing the New Jersey as one of the leading global markets for onsite solar electric systems, and created a foundation for future growth.

In contrast, wind and biomass systems remain at the preliminary stages of market evolution, and while high in potential, have experienced only a fraction of participation relative to solar. In 2008, wind and biomass systems were given a CORE budget category with dedicated funds and greater market focus.

In addition to rebates, solar projects have also qualified for Solar Renewable Energy Credits (SRECs), while wind and biomass projects have qualified for Renewable Energy Credits (RECs). The SREC-Only Pilot program offered market participants willing to forgo a CORE rebate with an expedited means to obtain SRECs for their projects, and the SREC-only model is seen as the primary vehicle for driving development of larger solar projects in the future.

In 2008, the Market Managers combined the activities of the SREC-Only Pilot Program into a broader REC Facilitation Program in order improve administrative efficiency, simplify requirements for participants, and improve market transparency. The consolidated REC Program has helped market participants register projects for both SRECs and non-solar RECs by providing registration, inspection services (for SRECs), sample-based verification of existing projects, market data to help promote transparent and efficient trading, and by providing assistance to market participants in understanding the structure and direction of New Jersey's REC and SREC markets.

With the advent of the New Jersey solar market transition as defined in the Board Order of December 12, 2007, in 2009-2012 rebates will be provided for solar projects which are less than 50 kW. Incentive design will be structured to minimize the potential for queues in the future. For solar projects larger than 50kW, there are no rebates available. Incentives will be delivered through SRECs, the value of which is determined by market forces. Wind and biomass projects will continue to receive rebates for all project sizes up to the net metering limit, with separate budgets established for each technology.

To reflect the greater role of market incentives like RECs in lieu of rebates in the solar market, and the need for increased focus on wind and biopower projects, the suite of services offered to customer sited renewable energy projects will be renamed the Renewable Energy Program (REP), offering rebates and REC facilitation services across the solar, wind and biopower markets.

The Renewable Energy Program incorporates Market Manager activities across the spectrum of market, technical, and financial support, and includes upstream market development, application processing, incentive processing, inspections, etc., and strives to:

- Consolidate administrative processes,
- Simplify and improve marketing and communications regarding program offering (thereby improving enrollment), and
- Simplify the contractual and billing structure, across the spectrum of program offerings and technology types it encompasses.

Target Market and Eligibility

The REP program serves residential, commercial, institutional and industrial market segments, and is available to private and public customers in all rate classes. To be eligible for a REP rebate, an applicant must be a ratepayer of a New Jersey Board of Public Utilities-regulated electric and/or natural gas utility paying the Societal Benefits Charge.

Four renewable energy technology types are eligible to receive REP rebates:

5. Photovoltaic – Systems that utilize semi-conductor technologies to produce electricity directly from sunlight.
6. Sustainable Biomass – Systems that use a sustainable and renewable supply of organic material to produce electricity.
7. Wind Generation – Generators that convert the kinetic energy of wind into electricity.
8. Fuel Cell – Electrochemical energy conversion devices that produce electricity from external supplies of fuel (hydrogen) and an oxidant. To be eligible for participation in the REP Program the Fuel Cell must use a renewable source to produce the hydrogen fuel.

The target markets for solar, wind and biopower differ driven by resource availability and technology.

	< 50KW	>50KW
Solar	Solar Rebate & SREC	SREC
Wind	Wind/Biopower Rebates & RECs	
Biopower		

Photovoltaics 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. There are few "NIMBY" issues related to solar, the technology is often viewed as aesthetically pleasing, and creates no noise, emissions or water use issues. A robust solar industry has developed globally, and there is significant R&D underway to reduce costs through innovations in panel technology and installation procedures. The long term limiting factor on solar growth in New Jersey is likely related to site suitability more than technology or economic factors.

The target wind market in New Jersey is defined primarily by resource availability. Winds suitable to sustain positive economics are located primarily at the shore, and in the highlands. Early experience in the market suggests that small residential wind projects result in significant siting issues given the aesthetic issues with high towers and concerns about noise and vibration. This is less of an issue in sparsely populated areas of the state and in industrial zones. To date, there has been significant interest in wind development among coastal municipalities and municipal authorities (i.e. wastewater treatment facilities). REP will be targeting these coastal and highland communities, and industrial sites in these communities, to stimulate awareness and interest in developing and supporting projects. Combined with expedited permitting and modifications to net metering rules it is possible to envision significant growth in this market.

The sustainable biomass market is comprised of many market segments and niches. The landfill market has already been penetrated through the EPA's landfill gas to methane program. Current research indicates that the best onsite biopower opportunities will exist

where there is an ongoing reliable supply of feedstock generated at the site, where electricity needs are high, competition for feedstock is low, and at sites located in industrial zones.

The biomass market segments with the highest potential include wastewater treatment facilities, food manufacturing, and wood and paper manufacturing. In addition, there may be opportunities in retail-oriented facilities that generate food and paper waste and that have enough space to co-locate biopower facilities (such as universities, schools, retail malls and amusement parks). In total, there may be 400-500 target prospects for onsite biopower, but significant development work is needed to stimulate demand in these market segments and to create a robust supplier community in the state.

The REP rebate program will provide support for systems that serve to off-set the customer's own on-site electric consumption, and do not produce net excess generation from the site on an annual basis. These are typically net-metered systems but can also include large industrial facilities that use all of the renewable energy generated on-site and do not need to be net-metered. The REC program is available to all projects, whether they produce net generation or not.

New construction projects are also eligible, provided they provide documentation of projected annual electric consumption to demonstrate the proposed system will not produce more than 100% of their annual consumption.

Planned Program Implementation Activities for 2009

Program year 2009 represents a clear transition to the new structure for delivering solar market incentives. New market entrants that are not able to be funded with existing REP program budgets will rely on the new market development initiatives proposed below for program year 2009. Sound communications and outreach to existing customers will be critical to provide access of information and options for participation in renewable and energy efficiency programs available through the NJCEP.

Program Priorities in 2009

REP will have five major areas of focus for program operations in 2009:

7. Approve and complete the highest possible volume of REP projects subject to available budget.
8. Implement three annual funding cycles for solar rebates.
9. Support the transition to the new solar market structure in New Jersey. REP will develop program support and administrative services for these new market structures, and help current and future market participants understand their options.
10. Solar electric systems have accounted for 96% of total CORE rebates and close to 90% of the capacity installed through the program. While the dominant share of solar as compared to the other eligible technologies will continue in 2009, the plan also

includes enhanced market development activities designed to increase wind and biomass participation.

11. REP will continue efforts to increase the level of integration between the renewable energy and energy efficiency components of the New Jersey Clean Energy Program portfolio. This includes tiered incentives based on whether facilities have received an efficiency audit.
12. Market development and training components of the program will be expanded and increased to accelerate development of wind and biomass markets.

2009 Program Marketing and Communications Plan

The REP Program marketing and communications plan proposes to support the accelerated development of renewable energy markets, with a particular focus on wind and biopower technologies. The principal challenge will be to engage focused target markets upstream of project development in order to reduce market, technical and regulatory barriers that slow or discourage project development.

Target Audiences

There will be substantial downstream processing work in application processing and quality control for the portion of the program that provides rebates to small solar electric systems (up to 10 kW). The primary audience is homeowners interested and able to install solar systems on their property, and non-residential entities for small commercial, non-profit and public projects (up to 50 kW).

However, program installers and developers will be the principal drivers to most of the marketing to audiences for small solar. The market managers will play a support role to these program contractors by providing ongoing training on program requirements, technical issues and business management.

In 2009, the market managers will focus their marketing and communication efforts on those markets that are less mature than the small solar marketplace in New Jersey, in particular the wind and biopower markets. Within an account management framework, we will provide education and will promote the market to the people likely to become project owners or hosts. These downstream markets are fairly specific (discussed below by technology).

But we will also work upstream to facilitate networking among the businesses that create the industry infrastructure needed for statewide penetration of renewable energy development. In addition to working with installers, we propose to reach further up into the market chain for developers, manufacturers, distributors and financiers, and to bring these parties together in strategic alliances that will speed up the process of getting projects built.

For wind, the key target markets include municipalities, agriculture, and shore residents and businesses that have the space, resources and interest in installing wind systems.

For biopower, a key target market in 2009 is municipalities that have waste water treatment plants or that can aggregate organic waste from other local sources; food processors; wood manufacturers; universities and other schools; and niche markets like theme parks, zoos, or horse farmers.

For solar, the market managers will engage entities that are interested in developing solar, but which are experiencing significant market barriers to getting projects built. This may include affordable housing entities, non-profits, public entities and small business.

2008 Accomplishments and Lessons Learned

- Public relations and media outreach activities, including four press releases, explaining the changes from a rebate to a market-based solar financing structure, educated the market regarding solar incentives. Additional public relations events highlighted ribbon-cutting ceremonies for key projects.
- Provided program reporting for policy makers and trade allies on njcleanenergy.com, which included access to the CORE queues, budget, paid projects, commitment status reports, renewable energy systems installed charts, renewable energy certificate market updates web page, SREC-Only Pilot weekly status reports, the solar counter, board orders, request for comments, and program updates.
- Educational working groups of biopower technicians proved effective.
- Participated in NJ Clean Energy Conference Committee. Helped select and contact potential speakers and award nominees to showcase achievements and innovators in the field.

Marketing and Communication General Strategies:

1. Focus on target markets (which can differ by technology), with active account management for key markets
2. Alliances with other players
    a. State – EDA, DEP, DCA, Agriculture, Commerce, OEG
    b. Utilities – support/coordination for utility initiatives
    c. Energy Efficiency programs
    d. Local governments and municipalities
    e. Community partners
    f. Commercial/Industrial customers
3. Proactive consumer education through website, press kit, technical assumptions used to support all communications, messaging

4. Public presence – speakers' bureau, commissioner champions, events, and making public information easily available and understandable on "how to" participate
5. Trade Ally Network Development

Solar Market: Shaping Market Development

The solar industry infrastructure in New Jersey is comparatively mature, and the market managers can provide ongoing services to continue to shape market development:

1. Support policy development, implementation and communication, track pending rules and board orders, and to provide strategic consulting in key areas affecting program outcomes, including community solar and community energy, net metering, solar transition, financing and securitization, and other important issues.
2. GATS transition, net metering, Community Energy – facilitate development and implementation of new regulations and rule changes concerning the solar transition, the Energy Master Plan and the Renewable Portfolio Standard.
3. Trade Ally Network development, including training, certification and other opportunities
4. Workshops for key market segments and industry and trade allies
5. Facilitate integration with efficiency by cross promoting to customers
6. Acknowledge success in the marketplace, including Awards, Case Studies, Signage

Wind: Two Markets

Wind market general strategies include:

1. Work through existing trade associations and non-profits
2. Support local permitting and zoning processes
3. Work upstream – meetings, presentations, trainings, workshops, networking events (like the municipal training in June 2008)
4. Build industry network (like the wind site assessor training in late 2008)
5. Target shore municipalities and the Highlands communities

The market managers also plan to develop different approaches for the two major types of wind projects – those under 100 kW and those over 1 MW. For small wind, the key activities include customer awareness building through program workshops, and website content (including case studies).

For large wind, regulatory adjustments are needed to allow community energy projects to move forward. While regulations are under development, the market managers will work to evolve a coalition of communities interested in installing large turbines.

Biopower Technology: Getting a Foothold

Biomass projects are the most complex technically, but are operating in the least developed market infrastructure. The 2009 strategy is to target short term low hanging fruit, while we fill the long term pipeline with projects that have longer development cycles. It will be important to build the industry network, and we propose upstream market acceleration through meetings, presentations, trainings, workshops, networking events (like the Biopower Working Group). The market managers will work through existing trade associations and non-profits, where feasible.

Key Messaging:

The messages that drive renewable development will appeal to innovators and early adopters, and will highlight the differentiators for these audiences:

1. Renewable energy provides a hedge against future fuel price increases – there are no fuel costs for these systems once they are installed.
2. Renewable energy is reliable, sustainable and creates energy pollution-free and is a major solution in addressing climate change.
3. In particular applications, particularly biopower, renewable energy is an efficient and effective way to deal with natural resources that might otherwise 'go to waste'.
4. Renewable energy is the second step for those who want to go beyond efficiency, who want to step up and do all they can, and who are willing to put their resources at play to do so – people who believe they can make a difference in the world.
5. Renewable energy represents the future and systems installed today will point the way for wide-scale adoption tomorrow. It is for innovators who will lead the way.
6. Renewable energy can help drive future economic growth and growth of new jobs.
7. Renewable energy aligns with broader state, regional and national goals, including the Energy Master Plan (20% by 2020), the Regional Greenhouse Gas Initiative, and the U.S. Conference of Mayors Climate Protection Agreement.

Marketing and Communications Tactics

1. Web Strategy/Communications: Provide an enhanced level of customer service and market information through continued improvement of the renewable energy pages on the CEP website. Rework messaging to make the programs easy to understand by a consumer. Add content from case studies and fact sheets, and new functionality from the proposed REP IT System Enhancement that will allow select external access to

"real-time" information on project status. Actively cross-market appropriate energy efficiency programs, i.e. Home Performance with ENERGY STAR.

2. Special Trainings & Workshops: Initiate and conduct meetings, workshops, and trainings with key market players, including project hosts, developers, technical specialists and financiers. Trainings will be promoted by email, direct mail, web postings and trade association networking.
3. Collateral/Educational literature: Develop fact sheets and case studies for REP program (solar, wind, biomass, fuel cell technologies) to showcase technologies, project economics and environmental benefits.
4. Direct Mail Outreach: Conduct direct mail outreach to specific key target markets, including municipalities, providing information regarding opportunities to participate in REP and other clean energy programs.
5. Public Relations/Media Outreach: Facilitate "ribbon cutting" events for high-profile installations, commissioner champions, including development of press release, talking points and press kit to showcase project and explain current market offerings.
6. Sponsorships: Sponsor and participate in specific trade events that relate to renewable energy market, including New Jersey State League of Municipalities, the Global Green Expo, and the Clean Energy Conference.
7. Cross-marketing: Promotion of residential and commercial/industrial energy efficiency services and programs to leverage program awareness and increase participation in other programs offered by NJCEP.

REP Program Marketing Goals

Program Goals	Target Audience	Communications Outreach Strategy	Mktg. Collateral	Medium/Web Strategy
Excellent communications and program information available to market	Current and potential participants across technologies (solar, wind, biomass, fuel cell).	Develop case studies. Enhance website. Public speaking at trade associations. Sponsorship of key events.	Case studies; web content; talking points	Front end to program database system that allows secure access to reports and project status. Audience will be given access to timely information.
Support Transition for those not able to receive REP Rebate in 2009.	Existing applications that do not receive REP rebate funding.	New Jersey continues to provide technical and market support for project development.	Fact sheets; Press releases; event kits; press room	Direct outreach through account manager and other program staff, presentations to industry workshops, web-site and newsletter information, trade journal articles.
Increase Non-Solar Participation in the REP program	Sites with good biomass and or wind resources: municipalities, food processing industries, wastewater	REP program is not just solar. The economic and environmental benefits for wind and biomass projects can be quite favorable.	Fact sheets; talking points for public speaking; direct marketing (list purchase)	Direct outreach, participation in community events, associations, workshops. Develop press release to explain market offerings to the public.

Program Goals	Target Audience	Communications Outreach Strategy	Mktg. Collateral	Medium/Web Strategy
	treatment facilities.			
Increase cross participation between NJCEP efficiency and renewable energy programs	Focus on Home Performance with ENERGY STAR for solar installations	Consider increasing home performance and efficiency savings at the time when you are investing in solar	Marketing collateral for installers, events, employer drives	Feature on both Renewable and HP sections of the website. Cross promote with scouts, churches, environmental groups
Participate in major solar ribbon cuttings, at businesses, schools, or state buildings.	Businesses, municipalities, schools, etc. that have installed RE projects.	Work with media to cover these events.	Press releases	Feature solar ribbon cuttings on the renewable section of website. Develop case studies on the projects.

Marketing Changes for 2009

- Add to and enhance website by focusing on the key audiences: consumers, trade allies and stakeholders, and developing content and navigation that address each audience's needs. Produce a selection of representative case studies, fact sheets and FAQ on technical aspects of renewable energy development, clear navigation, readable reports and market data, etc.
- Increase market development training and workshop activities to increase participation in wind and biomass markets; increase technical/training workshops to address training needs based on market evolution and program changes.
- Direct marketing to key audiences, including buying contact lists and conducting effective campaigns to increase participation in the Class 1 market.
- Support for cross-program initiatives including outreach and communications to Community Partners, cross-marketing of Home Performance with ENERGY STAR and commercial/industrial energy efficiency services to expand all opportunities for energy savings.

Marketing Plan--Events Summary

The following organizations sponsor trade shows and/or monthly meetings that the Market Manager expects to support in 2009 with all costs covered within the fixed marketing budget. The exception is the sponsorship cost for the ACI Conference which is undecided at this time and will be billed as a variable cost.

Events of equivalent cost may be supported in exchange for any of these events. Additional events requests will be approved in advance by the BPU and funded through the contingency portion of the variable marketing budget. Promotional items distributed at these events and costs for displays will also be a variable marketing cost.

2009 Event and Sponsorship List included in Fixed Marketing Fees:

Event	Programs Supported				
	NJESH	HP	HVAC	ESP	REP
ACI - Affordable Comfort	x	x	x		x
Atlantic Builders Convention	x				
Builders League of South Jersey	x				
Builders and Remodelers Asso of Northern NJ	x				
Community Builders Association	x				
EPA Change the World	x	x	x	x	
Global Green Expo	x	x	x	x	x
Governors Conference on Housing Development	x	x			
Lakewood Blue Claws		x			
NJ Builders Association	x				
NJ Clean Energy Conference	x	x	x	x	x
NJ Conference of Mayors	x	x	x	x	x
NJ Flower Show		x			
NJ League of Municipalities	x	x	x	x	x
Shore Builders Association	x				
Southern NJ Development Council	x				
US Green Building Council - NJ Chapter	x				
US Green Building Council - Northern NJ Chapter	x				
US Green Building Council - Central Jersey Chapter	x				
US Green Building Council - South Jersey Chapter	x				

Appendix B – Residential Efficiency and Renewable Budgets

2009 Residential Energy Efficiency Budget

Residential Energy Efficiency Programs	Proposed 2009 Budget	Administration, IT and Program Developmt	Sales And 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	$17,327,515	$1,306,764	$0	$418,942	$12,803,753	$2,445,721	$52,335	$300,000
Residential New Construction	$44,459,826	$1,249,392	$0	$39,861	$38,369,275	$4,648,963	$52,335	$100,000
ENERGY STAR Products	$23,529,383	$1,212,133	$0	$0	$18,781,460	$3,383,455	$52,335	$100,000
Home Performance with Energy Star	$12,571,301	$756,921	$0	$115,634	$10,580,513	$965,899	$52,335	$100,000
Community Initiative	$947,612	$447,612	$0	$0	$500,000	$0	$0	$0
Sales and Marketing	$5,344,330	$0	$5,344,330	$0	$0	$0	$0	$0
Sub Total Residential EE Programs	$104,179,968	$4,972,822	$5,344,330	$574,437	$81,035,001	$11,444,038	$209,340	$600,000

2009 Renewable Energy Budget

Renewable Energy Programs	Proposed 2009 Budget	Administration, IT and Program Developmt	Sales And Marketing	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections and Other Quality Control	Performance Incentives	Evaluation and Related Research
Renewable Energy Program	$47,250,611	$1,478,247	$0	$248,745	$42,524,000	$2,894,708	$104,911	$0
CORE Program (Rebates Only)	$116,096,497	$0	$0	$0	$116,096,497	$0	$0	$0
Clean Power Choice Program	$327,501	$292,467	$0	$0	$0	$35,034	$0	$0
Sales and Marketing	$680,319	$0	$680,319	$0	$0	$0	$0	$0
Sub Total Renewable	$164,354,928	$1,770,714	$680,319	$248,745	$158,620,497	$2,929,742	$104,911	$0

Appendix C – Honeywell Performance Incentives

Overview

The Market Manager RFP made clear that the winning bidders would be eligible to earn modest financial incentives for exemplary performance. However, the specific goals articulated in the RFP were only appropriate in the program context in which they were developed (i.e. for the programs as they existed in 2005). As such, a revised set of goals and performance incentives are needed to match up with the 2009 New Jersey's Clean Energy Program Plan filed by Honeywell. This document presents those proposed performance incentives for the 2009 NJCEP Residential Efficiency and Renewable Program Plans.

Incentive Levels

As part of the process to extend Honeywell's Market Manager contract through 2009, Treasury requested and Honeywell agreed to modify the amount of performance incentive funds available should certain goals be achieved. These result in a maximum total performance incentive of $314,250 for 2009, comprised of $209,340 for residential efficiency, and $104,910 for the renewable energy market sector.

Incentive Structure

The approach taken to structure the goals for 2009 is a little different than that of past years mainly do the significant reduction in performance incentive funds available. For 2009, Honeywell proposes that both the residential efficiency and renewable energy sectors goals are sector based only.

For the residential efficiency programs, all of the incentive dollars are allocated across program goals related to electricity savings (MWh) and gas savings (DTh) to which all programs contribute.

For the renewable sector, all performance incentives are associated with the Renewable Energy Program (REP). The total of these incentives are tied to increasing customer sited wind and bio power project completion and market development. For 2009, 50% of the maximum eligible incentive is associated with the estimated annual MWh production from non-solar *completions*. Another 50% is tied to the estimated annual MWh production from new non-solar *approvals*.

We have also adopted the three-tier incentive structure identified in the RFP. Under that structure, for most goals Honeywell is eligible to earn 60% of the maximum incentive for achieving 100% to 119% of a goal, 80% of the maximum incentive for achieving 120% to 139% of a goal, and 100% of the incentive for achieving at least 140% of the goal.

Finally, we have proposed a set of minimum requirements necessary to earn *any* performance incentives. Those minimum requirements apply at the sector level. That is, if any of the minimum requirements for the residential efficiency programs are not met, no residential efficiency performance incentives can be earned. Similarly, if any of the

minimum requirements for the renewable energy programs are not met, no renewable energy performance incentives can be earned. However, missing a minimum requirement on a residential efficiency program will not have any impact on the ability to earn incentives for the renewable energy programs; nor will missing a minimum requirement on a renewable energy program have any impact on incentives for residential efficiency programs.

Defining Goal Achievement

All goals are expressed as 2009 calendar year goals. Thus, all savings and generation occurring between January 1, 2009 and December 31, 2009 count toward goal achievement. Goals were set with that period in mind. The goals for efficiency and renewable programs are based largely on past program experience in New Jersey, market trends, and experience in other leading states, with adjustments made to account for significant changes in either market conditions or program design.

Efficiency savings, estimated renewable generation from non-solar completions and participants are counted towards goals only for projects that are processed by the relevant programs during the 2009 calendar year.[12]

Efficiency savings and renewable energy generation goals are based on algorithms contained in protocols that are governed by the BPU.

Specific Goals

Specific residential efficiency program goals and the performance incentives associated with them are shown in Table C1. Minimum requirements for the residential efficiency programs are provided in Table C2.

Specific renewable energy program goals and the performance incentives associated with them are shown in Table C3. Minimum requirements for the renewable energy programs are provided in Table C4.

[12] Participants with either rebates paid or which are processed to the point of Honeywell submitting a rebate funding request to the Program Coordinator prior to December 31st are counted towards these goals. This ensures that Honeywell is measured only on elements of performance over which it has control (i.e. we do not control the turn-around time between when funding requests are sent to the Program Coordinator and funds are ultimately made available by the state for Honeywell to send a rebate check).

Table C1: 2009 Performance Incentives for Residential Programs

Program		Performance Indicator	Performance Goals and Incentives					
			Tier 1		Tier 2		Tier 3	
			100% Goal	Incentive	120% Goal	Incentive	140% Goal	Incentive
All	1	Lifetime Electric MWh avoided	2,800,000	$87,923	3,360,000	$117,230	3,920,000	$146,538
All	2	Lifetime Gas DTh avoided	7,200,000	$37,681	8,640,000	$50,242	10,080,000	$62,802
							Maximum:	**$209,340**

Notes:

1 Savings counted only for projects that are completed and processed by relevant programs. This includes both projects for which rebates have been provide and those for which rebate funding requests have been submitted to Program Coordinator.

2 Savings goals are at the generator level (i.e. include 11% line loss adjustment).

3 Savings goals represent lifetime savings expected from projects that complete during 2009, not the savings that will accrue from those projects during the 2009 calendar year (e.g. savings from project completed in December count the same as for one completed in January).

4 All goals assume other elements of this filing are approved, particularly budgets, program designs and savings algorithms.

5 Incentive payment for each performance indicator is based on the highest tier goal achieved for that indicator. No payment is made for a particular performance indicator if the lowest Tier goal for that indicator is not met.

Table C2: Minimum Requirements for Receiving Residential Efficiency Performance Incentives

Program		Performance Indicator	Performance Goal or Requirement
All	**1**	Lifetime Electric MWh avoided	2,240,000
All	**2**	Lifetime Gas DTh avoided	5,760,000

Notes:

1 Minimum requirements are set at 80% of the goal.

Table C3: 2009 Performance Incentives for Renewable Energy Programs

		Performance Goals and Incentives					
		Tier 1		Tier 2		Tier 3	
Program	Performance Indicator	100% Goal	Incentive	120% Goal	Incentive	140% Goal	Incentive
REP	1. REP Non-Solar MWh - Completions	13,870	$31,473	16,644	$39,341	19,419	$52,455
REP	2. REP Non-Solar MWh - Approvals	36,053	$31,473	43,263	$39,341	50,474	$52,455
	Maximum Total:						**$104,910**

Notes:

1 Based upon estimated first year generation for all non-solar projects completed (including those for which a final rebate request has been submitted) during calendar year 2009.

2 Based upon estimated first year generation for all non-solar projects approved with 2009 funds.

Table C4: Minimum Requirements for Receiving Renewable Energy Performance Incentives

Program	Performance Indicator	Minimum Requirement
REP	1. REP Non-Solar MWh - Completions	6,935
REP	2. REP Non-Solar MWh - Approvals	18,026
REP	3. Inspections for all complete rebate projects	Required
REP	4. Maintain documentation on program requirements	Required

Note: The minimum requirements for indicators 1-2 are set at 50% of the goals.