

March 31, 2015

RE: Potential Program Changes beyond FY2016

The Market Manager has several changes being explored that could be implemented beyond FY2016. These are longer term initiatives and would require contract modifications, additional research, new programs, additional funding or any combination thereof. Initiatives are listed below according to Program.

ENERGY EFFICIENT PRODUCTS

The Market Manager will explore inclusion of connected products like Smart Thermostats. The Market Manager would explore opportunities in supporting appliance packages used in the building and real estate industry, rebating single and multifamily projects. We would also leverage a national platform for greater engagement with retailers to accelerate the stocking and sales of certain ENERGY STAR product categories.

RESIDENTIAL NEW CONSTRUCTION

Current FY2016 changes represent a transformational move toward higher energy efficiency construction adoption and ERI compliance path adoption. New Jersey's expected eventual adoption of the IECC2015 code will position the Program to have a transformational marketing opportunity around ERI scores. The Market Manager would recommend pursuing aggressive marketing to educate buyers around the ERI scores and how to compare builders on an "apples to apples" level around energy efficiency. This would create a move on the demand side towards higher efficiency. The Market Manager would also explore solutions to barriers for wide spread adoption of ZERH and Passive Home participation.

HOME PERFORMANCE WITH ENERGY STAR

Certificate of Completion

Developing a Home Performance with Energy Star completion Certificate for homeowners and the Real Estate Industry could add value to existing homes and help prospective buyers differentiate between homes. This certificate would provide additional value to the Energy Efficient enhancements being added. Preliminary feedbacks from Contractors indicate this would be a valuable feature and could be used as a selling tool.

Smart Thermostats

“Smart” or communicating thermostats, have entered the residential market and are capable of saving more energy and peak power than the previous generation of programmable thermostats. We recommend pursuing smart thermostats as an incentive-eligible measure in the HPwES program. Smart thermostats are not appropriate for every home or application, so the program should offer contractor training on best practices for smart thermostat installation.

Remodeling Pilot Program

New Jersey’s HPwES program may be missing opportunities to engage the broader market for remodeling projects and building envelope improvements. If remodeling in New Jersey is occurring at the same rate as nationally, there are likely 20,000 to 30,000 insulation and residing projects per year.¹ We recommend outreach to the insulation and remodeling industry to understand barriers, motivations to participation in the NJCEP, and opportunities to engage these contractors and customers through a new program.

• WARM & COOLADVANTAGE

The Market Manager would establish a new measure category to include Boiler Circulator Pumps and deliver through an upstream approach to overcome supply chain stocking and high cost barriers. There are opportunities in transitioning to an upstream approach with Water Heaters as well. The Market Manager also advocates transforming to a whole house approach and allowing modifications to project eligibility of HVAC measures, fostering synergies with HPwES measures implemented within a prescribed time period.

¹ US Census, Home Improvement Characteristics – Owner-Occupied Units, 2013 American Housing Survey.

FY 2016 C&I Program Recommendations Requiring Contract Modifications or Long Term

Planning & Research

TRC is submitting the following long-term recommendations for the NJ Clean Energy Commercial and Industrial (C&I) Programs. Implementation of these recommendations will require a contract modification and/or further planning and research to fully develop the details of the recommendations.

These recommendations were identified following several meetings with C&I program customers, contractors, partners and interested stakeholders as part of the recent Program Planning effort. They also reflect staff recommendations based upon program experience, research into comparable programs elsewhere in the US as well as discussions at recent Program Planning Committee meetings.

TRC recognizes that the recommendations put forth in the *Review and Benchmarking of the NJ Clean Energy Program* developed by ERS will also be considered when making decisions regarding long term program modifications.

Smart Start Program

TRC will develop a specific performance lighting program for existing buildings. The program would provide incentives for efficient lighting design over code and would require advanced lighting controls as part of the scope. This would be an expansion of the performance lighting recommendations put forth for the FY 16 filing.

TRC will investigate upstream incentives for prescriptive measures and how they could be incorporated into the program.

Direct Install Program

TRC is investigating options for opening up the DI program to a larger group of qualified contractors and will present options to the BPU that will range from a completely open system (any qualified contractor can participate) to a hybrid of the current system and an open system.

Related to pricing and financing, TRC will propose a process to secure pricing updates on a more regular basis similar to the SBDI program offered by National Grid in which program pricing is updated quarterly to address depreciation; we will investigate opportunities to bring suppliers into NJ to help reduce costs and allow faster delivery of equipment. We will also work with utilities and contractors to make on-bill repayment or financing more readily available to customers.

Following discussions with BPU staff, TRC will host a stakeholder meeting to gather input on proposed revisions to the program.

Pay for Performance – New Construction Program

Energy modeling is an integral part of the Pay for Performance Program. TRC recommends establishing a cost sharing program for modeling training (e.g., 75% paid by program, 25% paid by partner). TRC would arrange trainings two times per year, as well as consider cost share for other eligible trainings not organized by NJCEP.

Additionally, TRC will investigate redesigning the program to pay incentives based on \$/kWh and \$/therm saved vs. current structure, which pays incentives based on \$/sqft. This structure would align with the Pay for Performance- Existing Buildings Program, and may make the program more cost effective (per ERS Benchmarking Study 2015).

Finally, TRC will research the potential to re-align this program structure with LEED, as a large part of the program pipeline is also pursuing LEED certification. This could include using the LEED templates (with modifications) and the elimination of the ERP Report, which would also streamline program participation.

Pay for Performance – Existing Buildings Program

Energy modeling is an integral part of the Pay for Performance program. TRC recommends establishing a cost sharing program for modeling training (e.g., 75% paid by program, 25% paid by partner). TRC would arrange trainings two times per year, as well as consider cost share for other eligible trainings not organized by NJCEP.

The multifamily sector represents a significant portion of the P4P customer base. In recognition of their unique needs and the challenges of collecting utility data from multiple tenants, TRC will investigate alternatives for utility bill collection such as working with utilities to acquire aggregate tenant data or establishing average kBtu/sqft values that can be used in lieu of utility bills. The latter option will require research into energy use of existing multifamily projects, state and nationally accepted protocols, and third party research in order to ensure accuracy is not sacrificed. TRC will investigate impacts to the incentives and savings verifications if such alternatives are implemented.

Current program design proves administratively heavy for both partners and the Market Manager, particularly when it comes to developing and reviewing energy models. TRC will investigate alternative program designs, such as placing a higher percentage of the incentive on the back end following multiple years of performance and verified utility bills; or creating an alternate path that provides prescriptive savings for common measures. TRC will research these possibilities, and the impacts to the program.

TRC will also look into creating a pilot that provides incentives for analysis done by the partner prior to the full Energy Reduction Plan. This would be limited to large, complex facilities (e.g. 400 kW peak demand or greater, hospitals, industrial, etc.), which, according to the Partners require a large amount of initial screening prior to committing to the program to ensure they meet minimum program requirements. Use of the benchmarking offering would be required. This effort may not be pursued should the NJCEP develop a sector-wide audit program.

Local Government Energy Audit Program

TRC recommends several program modifications that will enhance the program including developing a program modification that would allow for the update or refresh of older existing audits, explore restructuring the contracts and scope of work for the existing auditors, and work with BPU to review the ESIP requirements for an LGEA and an additional investment grade audit later in the process to determine if both are necessary. TRC will also investigate the development of tiered audits based on a desired outcome/use. This may help to better meet customer needs and not try to apply standard LGEA across the board.

In addition, TRC will continue to work closely with Sustainable Jersey regarding their research on local government entity use of the programs to develop targeted outreach to entities based upon their level of participation (i.e., no involvement, LGEA but no measure implementation, measure implementation but no LGEA).

In conjunction with our work with Sustainable Jersey, TRC will investigate the development of a methodology to measure/track energy savings associated with implementation of measures identified in their LGEA.

Combined Heat & Power/Fuel Cells

TRC will research the development of a single program (large and small scale CHP and Fuel Cells) to be managed by the C&I Market Manager, as well as create clearer guidance on what other alternative or supplemental state funding may be pursued by an applicant such as EDA programs and the ERB.

TRC will work with the BPU to complete a comprehensive CHP evaluation in order to address issues including, but not limited to the following. Information will be used to develop a program and incentives that more effectively serve the market:

- Evaluate eligibility of combined-cycle systems, which produce only electricity to the host site (e.g. CHP prime movers with Organic Rankine Cycles, CHP with back pressure turbine).
- Consider stand-alone program for Fuel Cells and revise eligibility requirements to allow a wider cross-section of manufacturers to qualify for incentives. Incentive levels and islanding requirements for this type of equipment should also be evaluated.
- Reevaluate incentive levels and incentive caps across all technologies to ensure they align with regional averages while taking into account local utility rates, equipment costs, and other costs incurred.
- Extend period over which performance incentives are paid from 1 year to 2 years (or more) for systems greater than 1 MW. This will require the establishment of standardized reporting templates.
- Consider a "re-build" incentive for existing CHP systems that are out of commission. Eligibility requirements would need to be established based on when the system was installed, how long it has been out of service, and whether it has previously received incentives from an SBC funded program.
- Consider a "resiliency bonus" for grid-independent operation, and/or "site specific bonus" for specific areas of NJ or emergency shelters. We would need to consider impact and interaction with ERB.
- Consider establishing a feasibility study incentive for large (> 1MW) projects.
- Brainstorming of a micro grid program/track.
- Consider working with NYSERDA's CHP program to align incentives and program requirements.
- Consider combining program and budget with renewable CHP program to eliminate confusion in the market.

In addition TRC will pursue working with the BPU to resolve interconnection issues, and create multi-year budget projections to illustrate stability in the program.

Large Energy Users Program

TRC has no long term program change recommendations for this program but will work with BPU staff to consider the recommendations of the ERS Benchmarking Report recommendations.

TRC will (as referenced in the outreach plan) develop more targeted outreach to past and eligible LEUP customers to ensure they are aware of the program and how to use it.

Portfolio/General Program Recommendations

Additional Program Guidance - Additional guidance needs to be developed for customers that are interested in multiple programs. TRC will develop tools to better assist customers trying to determine the best program and or best path forward when considering multiple programs. This guidance isn't available on web site or via program literature, only when/if customer contacts program representative

Brand Recognition - During stakeholder discussions and day-to-day communication with customers and contractors it is clear that there is confusion in marketing materials due to the number of logos (BPU, CEP, Smart Start, DI) as well as a lack of "brand recognition" for the clean energy program. New marketing collateral and strategies can help eliminate that confusion.

Trade Ally/Contractors - Consider offering incentives that encourage contractors to promote the programs and/or incentivize them to meet specific goals for energy savings or projects. Establish requirements for becoming and remaining a pre-approved contractor or trade ally so it encourages performance; consider tiered levels to recognize top performers.

Technology - Programs should be designed to be more responsive to changes in technology changes i.e., lighting.

Sector Specific Offerings - Options for a sector-specific program design ranged from offering the same programs but through a sector-based portal or a complete re-design of incentive options for specific sectors e.g., data centers, multi-family, gut rehab projects, etc.

Financing – Providing financing for certain programs instead of incentives can help save ratepayers money by reducing their contribution to the SBC. Such financing structures could follow the model of the Energy Resiliency Bank or may transition CEP incentive dollars to loans by creating revolving loan programs. Another alternative could be part of the integration of the Environmental Defense Fund's Investor Confidence Project (ICP) into the existing Clean Energy Programs. Use of the ICP protocols would result in a "certified" Investor Ready Energy Efficiency Project that would attract private investors. In addition, financing programs used by other state or utility programs will be investigated.

New Program Ideas

The following are new program suggestions that will require further research and development:

- Retro Commissioning Program to ensure equipment performance over time and identify new energy efficiency opportunities.
- Performance based single or multiple measure program similar to the existing custom path available through SmartStart. A group of qualified system specialists (HVAC, Lighting, etc.) will be developed/maintained. The intent is to provide a path for customers to obtain incentives for deeper energy savings which go beyond the prescriptive approach but are not whole-building.

- A consolidated multifamily Program that will provide a single entry point for all applicants, identify relevant prescriptive measures specific to sector as well as opportunities for financing.
- Sector-specific Programs - Customize new programs or define specific paths for sectors within existing programs to address unique needs of certain sectors such as data centers and hospitals.