

# New Jersey's Clean Energy Program<sup>TM</sup> Fiscal Year 2023 Program Descriptions and Budget

# **Energy Efficiency and Renewable Energy Program Plan Filing**



**FY23** Compliance Filing

June 29, 2022

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## Introduction

This Fiscal Year 2023 ("FY23") compliance filing ("Compliance Filing") presents the program plans, budgets, and anticipated savings of the initiatives of *New Jersey's Clean Energy Program*<sup>TM</sup> ("NJCEP").<sup>1</sup>

Administered through the Division of Clean Energy, NJCEP is a signature initiative of the New Jersey Board of Public Utilities ("BPU" or "Board") that provides financial incentives and support for energy efficiency technologies, distributed energy resources, and solar renewable energy.

## **Budgets**

Budget information for the programs implemented by the TRC Team ("TRC") can be found in Appendix D: Program Budgets.<sup>2</sup>

All budgets set forth in this Compliance Filing are subject to state appropriations law, and all incentive offerings are subject to availability of funds.

## **Savings Goals**

Energy savings projections for the programs implemented by TRC can be found in Appendix E: Program Goals and Performance Metrics.

## **New Jersey's Energy Efficiency Program Transition**

In 2018, Governor Murphy signed into law the landmark legislation known as the Clean Energy Act. The law called for a significant overhaul of New Jersey's clean energy systems by building sustainable infrastructure in order to fight climate change and reduce carbon emissions, which will in turn create well-paying local jobs, grow the State's economy, and improve public health while ensuring a cleaner environment for current and future residents.

As part of this statewide undertaking, the Clean Energy Act required New Jersey's investor-owned gas and electric utility companies to reduce their customers' use of gas and electricity by set percentages over time. To help reach these targets, the BPU approved a comprehensive suite of efficiency programs that would transition the State to some of the highest energy savings in the country.

These "next generation" energy efficiency programs feature new ways of managing and delivering programs historically administered by NJCEP. Some of the programs will continue to be administered by NJCEP, but during FY22, many others have been transferred to administration by the utilities.

<sup>1</sup> This Compliance Filing only addresses programs implemented by TRC. NJCEP funds are also directed to other state energy programs not implemented by TRC and, therefore, are not addressed in this filing.

<sup>&</sup>lt;sup>2</sup> The budget for all of the new construction programs, including the anticipated redesigned New Construction Program and the programs transitioning into that new program (see below in main text), will consist of the amount set forth at "New Construction Program."

The programs that will continue to be administered by and through NJCEP are:

- 1. The same new construction programs that were being conducted during FY22 (i.e., the Residential New Construction ("RNC"), Commercial and Industrial ("C&I") Buildings New Construction ("C&I NC" or "SmartStart NC"); C&I Buildings: Pay for Performance ("P4P") New Construction ("P4P NC"); and C&I Buildings: Customer Tailored Energy Efficiency Program for new construction ("CTEEP NC" or "Cust Tailored")) until they are transitioned into a redesigned New Construction ("NC") Program being developed in consultation with Board Staff. Following stakeholder and public input, and subject to Board approval, Board Staff anticipates the redesigned NC Program would launch later in FY23. Among other things, the redesigned program would be an improved platform providing incentives in many ways similar to those currently provided by the FY22 new construction programs, which FY22 programs will continue to run unchanged from FY22 until they transition out of existence into the NC Program.
- 2. C&I Buildings: Large Energy Users Program ("LEUP").
- 3. Local Government Energy Audit ("LGEA") Program.
- 4. Combined Heat and Power Fuel Cells ("CHP-FC").
- 5. Renewable Energy ("RE") (i.e., solar) Programs ("Solar Programs").

Complete descriptions of the above-described programs and their incentives are set out in this Compliance Filing.

Certain other programs and/or program components identified in Appendix D: Program Budgets will continue to operate and expend NJCEP funds only for applications received during prior FYs in accordance with the applicable program rules in place during the applicable FY(s). For example, the "EE Transition" Budget Line at Appendix D: Program Budgets is for the purpose of making payments during FY23 for any applications and/or appeals from rejected applications regarding programs that closed during or prior to FY23 (e.g., the now-closed HVAC Program).

Finally, certain other programs (e.g., Energy Efficient Products) that existed in FY22 have been fully transitioned to the utilities and have ceased to operate and expend NJCEP funds.

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## **Residential Energy Efficiency Program**

## Residential New Construction Program

As noted above, Staff is developing a redesigned NC Program for consideration and possible approval by the Board in early FY23. Meanwhile, the Residential New Construction Program will continue to be administered as described below unless and until the Board approves the redesigned NC Program or other program changes.

## **Program Purpose and Strategy Overview**

The Residential New Construction ("RNC") Program is designed to increase the energy efficiency and environmental performance of residential new construction buildings (single and multifamily) in New Jersey. The RNC Program has the long term objective of transforming the market to one in which a majority of residential new construction in the state is "net zero-energy" (i.e., extremely efficient buildings where low energy needs can be met by renewable energy generation).

The RNC Program strategy is to establish technical standards for energy efficient new construction in New Jersey utilizing nationally recognized platforms, including the EPA ENERGY STAR® Certified New Homes Program, EPA ENERGY STAR Multifamily High Rise ("MFHR") Program, EPA ENERGY STAR Multifamily New Construction ("MFNC") Program, and U.S. Department of Energy (DOE) Zero Energy Ready Home ("ZERH") Program. The RNC Program then provides technical support and incentives to home energy raters, architects, trade allies, builders and homebuyers to enable them to design, build, and purchase homes that comply with these standards.

Using an account management approach, the RNC Program recruits new and supports existing energy professionals who oversee the energy efficiency work completed by participating builders. There are two paths for energy professionals to participate: 1.) as a Home Energy Rating System ("HERS") Provider approved by an EPA-Approved Verification Oversight Organization ("VOO"); and 2.) as a Modeler approved by an EPA-Approved Multifamily Review Organization ("MRO"). Those approved through either path are generally, and in this Compliance Filing, referred to as "Raters" or "Rating Companies."

The RNC Program is focusing on building stronger relationships with the participating builders through the development and use of a Builder's Participation Agreement clarifying the builders' relationship with the RNC Program, the use of account managers to provide more direct support to the builders, and the use of the Outreach Team to recruit new builder participants with an emphasis toward ZERH Program projects. The RNC Program also provides the necessary training to Raters, trade allies, and builders to ensure they understand the program rules/requirements, and have the skill set to meet the higher-than-code program standards to build homes that contribute to New Jersey's energy reduction efforts. Incentives are offered to partially offset the incremental construction costs associated with building higher efficiency homes and to generate interest and enthusiasm for the RNC Program among builders and homeowners.

## Support for Energy Master Plan Goals

The RNC Program will support many of the 2019 Energy Master Plan's ("EMP's") strategies and goals, including, among others, the following:

- Primary Goal 3.1 (Increase New Jersey's overall energy efficiency).
- Primary Goal 4.1 (Start the transition for new construction to be net zero carbon), especially through the NC Program's support for Zero Energy Ready Homes and Passive Houses.

## **Program Description**

The RNC Program is market-based and relies on builders and Raters to build to nationally recognized platform standards, which are defined by core efficiency measures, energy modeling, rater and builder oversight, and checklists to ensure quality installation.

To participate in this RNC Program, HERS Raters must use modeling software approved by the Program to model savings, calculate the Energy Rating Index ("ERI") and MMBtu incremental savings compared to the User Defined Reference Home ("UDRH").<sup>3</sup> To be approved, the software must be accredited by an EPA-Approved VOO and be capable of providing batch reporting, including building components for QA review of rating files and savings utilizing the UDRH.

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

- 1. Builders do not always see the value of the additional administrative procedures and associated costs of ENERGY STAR;
- 2. The higher incremental cost associated with the additional Rater administrative and field inspection requirements of a ZERH;
- 3. Builders and designers are not proficient with the energy code requirements that the RNC Program requires them to meet or exceed;
- 4. Conflicting motivations guiding design criteria and choices (i.e., builders who make design, procurement, and construction decisions do not pay the homeowners' operating costs associated with those decisions);
- 5. Lack of local market awareness regarding the benefits of efficiency and environmental performance on the part of consumers, builders, lenders, appraisers, realtors and others;
- 6. Limited technical skills on the part of some builders and their trade allies to address key elements of efficiency;
- 7. Lack of local consumer marketing on the benefits of owning a RNC Program-participating home to drive demand;
- 8. Limited awareness of the ZERH requirements, benefits, and incentives that are available to support that market segment; and
- 9. Inability of consumers, lenders, appraisers, and others to differentiate between efficient and standard new construction homes.

The RNC Program employs several key strategies to overcome these barriers including:

• Direct financial incentives to builders of homes that meet program standards;

<sup>&</sup>lt;sup>3</sup> I.e., a baseline home which, among other things, is defined and used in the NJCEP Protocols to Measure Resource Savings.

- An incentive to offset the incremental Rater cost associated with certifying a ZERH single-family or multi-single home;
- Multiple pathways that allow participation across efficiency levels, entice new builders to the RNC Program, support the NJ construction market for energy code, and promote increased efficiency and quality-assurance with higher incentives;
- Utilization of nationally recognized EPA ENERGY STAR and DOE ZERH brand and website to help promote residential energy programs;
- Technical assistance to inform builders and their trade allies on details of the program pathways and how to comply with the rigorous performance requirements; and
- ENERGY STAR and ZERH certification, inspections, and testing through third-party rating companies that compete in an open market for services.

## **Program Participation Pathways**

The following participation pathways provide New Jersey's builders and homeowners with a range of participation options to suit builders at different levels of experience with energy efficient construction techniques and homebuyers with varying interest and budgets. All are based on the presumption that the IECC 2009/2015/2018 energy code sets the minimum energy performance requirement for newly constructed homes. Therefore, they all result in energy performance that is better than that required by IECC 2009/2015/2018, as applicable, depending on the home's permit date.

#### **ENERGY STAR Home**

Builders that enroll in this pathway will satisfy the requirements for ENERGY STAR certification utilizing the Performance Path by way of the ERI, including full inspection checklist requirements. This pathway includes ENERGY STAR Version 3.0 or 3.1, depending on the date of the applicable building permit for single-family and multi-single homes. The incentive structure within this segment will include a base incentive plus a performance incentive using MMBtu saved as compared to the applicable code UDRH as the indicator.

## Zero Energy Ready Home (ZERH)

This pathway recognizes a higher energy efficiency achievement in new home construction. Program requirements include meeting or exceeding all DOE ZERH<sup>4</sup> technical standards, building in compliance with the ENERGY STAR Homes Program and all checklists, meeting 2015 IECC insulation levels, and certifying under EPA's Indoor airPLUS Program. The incentive structure within this pathway will include a base incentive plus a performance-based incentive using MMBtu saved as compared to the applicable UDRH as the indicator.

## Zero Energy Home +RE (ZERH+RE)

This pathway has the same requirements as the ZERH pathway with the additional requirement that 100% of the building's modeled energy usage is met by renewable energy systems installed prior to completion of the home. The incentive structure within this pathway will include a base

<sup>&</sup>lt;sup>4</sup> https://www.energy.gov/eere/buildings/guidelines-participating-doe-zero-energy-ready-home-program

incentive plus a performance-based incentive using MMBtu saved as compared to the applicable UDRH as the indicator. Incentives will be paid based upon the ERI before the addition of renewables. An additional fixed incentive for the renewable energy system will be awarded for a project meeting the ZERH+RE eligibility requirements.

## ENERGY STAR Multifamily High Rise (MFHR) / ENERGY STAR Multifamily New Construction (MFNC)

On January 1, 2019, EPA launched its new ENERGY STAR MFNC Program that combines low, mid, and high rise buildings under one program. By July 1, 2021, EPA will cease using its predecessor programs for any multi-family buildings. This pathway will satisfy the requirements for ENERGY STAR MFNC Version 1.1 certification, meeting the performance targets of the ERI or ASHRAE pathways, including full inspection checklist requirements.

## **Target Market and Eligibility**

Newly constructed or substantially renovated (also known as gut rehabilitated) single-family (i.e., one- and two-family homes), multi-single (i.e., townhouses), multifamily buildings are eligible for RNC Program benefits if the home/building will use natural gas and/or electricity as the heating fuel supplied by a New Jersey public utility. The target market for this RNC Program is homebuilders and Raters.

Applicants who pursue their multifamily projects through the ENERGY STAR Multifamily New Construction (MFNC) program may apply for NJCEP incentives through the RNC Program. Applicants who do not pursue their multifamily projects through the ENERGY STAR MFNC program may apply for NJCEP incentives through the P4P NC Program. Regardless of which program the applicant pursues, all applicable NJCEP program requirements must be satisfied in order to receive incentives.

For buildings and projects registered in this RNC Program during FY20 and thereafter, the Decision Tree used in the new ENERGY STAR MFNC Program, which is set forth in this Compliance Filing as Appendix C: Multifamily Decision Tree, will be used to determine which ENERGY STAR Program will apply to the building or project.

Projects participating under this RNC Program are not eligible for participation or incentives under any other NJCEP program for any building envelope components, equipment, or appliances that were included as part of application to this RNC Program. However, a given substantial renovation project may be eligible for a utility-sponsored EE program, as well as for this RNC Program. In that case, the applicant would be able to choose which program it would utilize. However, the applicant could not have both programs cover the project. NJCEP and the relevant utility-sponsored EE programs have, or will have, program rules and procedures to implement the foregoing.

## **Program Requirements**

To qualify for the RNC Program, a home must meet ENERGY STAR Certified Home, ZERH, ZERH+RE, ENERGY STAR MFHR, or ENERGY STAR MFNC requirements.

The technical details presented below address most program requirements. The full technical specifications for RNC Program compliance are available upon request. The ENERGY STAR Certified Homes and ZERH Program requirements (e.g., checklists, standards and modeling

inputs) are periodically updated by EPA ENERGY STAR and supersede requirements of this program.

#### ENERGY STAR Certified Homes

Meet or exceed all EPA ENERGY STAR Certified Homes version 3.1 or 3.0 (based on permit date) Performance Path standards<sup>5</sup> including:

- Meet or exceed the ENERGY STAR Certified Homes version 3.1 or 3.0 Energy Rating Index Target; and
- Complete all ENERGY STAR Certified Homes version 3.1 or 3.0 mandated checklists.

## Zero Energy Ready Home (ZERH)

Meet or exceed all DOE ZERH Performance Path technical standards<sup>6</sup> including:

• Complete all ENERGY STAR Certified Homes Version 3.1 Program and all ZERH checklists.

## $Zero\ Energy\ Ready\ Home + RE\ (ZERH + RE)$

Meet or exceed all ENERGY STAR and ZERH requirements as described above.

Additional RNC Program Requirements:

• 100% of the building's modeled electric site energy usage must be met by renewable energy systems installed onsite prior to completion of the home.

## ENERGY STAR Multifamily High Rise (MFHR)

Meet or exceed EPA ENERGY STAR MFHR Program standards<sup>7</sup> including:

- Follow Performance Path which utilizes ASHRAE approved energy modeling software to determine energy savings of a customized set of measures; and
- NJCEP will require the application of a specific baseline within six months of EPA imposing such a requirement.

## ENERGY STAR Multifamily New Construction (MFNC)

Meet or exceed EPA ENERGY STAR MFNC Version 1.1 performance path standards<sup>8</sup> including:

• Meet or exceed the ENERGY STAR MFNC 1.1 following either the Energy Rating Index or ASHRAE pathways; and

https://www.energystar.gov/newhomes/homes prog reqs/multifamily national page#site-built

<sup>&</sup>lt;sup>5</sup> ENERGY STAR Certified Homes: <a href="https://www.energystar.gov/newhomes/homes\_prog\_reqs/national\_page">https://www.energystar.gov/newhomes/homes\_prog\_reqs/national\_page</a>

<sup>&</sup>lt;sup>6</sup> Zero Energy Home Standards https://www.energy.gov/eere/buildings/zero-energy-ready-home

<sup>&</sup>lt;sup>7</sup> https://www.energystar.gov/partner\_resources/residential\_new/program\_reqs/mhrp/program

<sup>&</sup>lt;sup>8</sup>Multifamily New Construction Standards:

• Complete all ENERGY STAR MFNC 1.1 mandated checklists.

#### **Incentives**

The RNC Program incentive tables can be found in Appendix A: Residential Incentives (including Enhancements).

The incentives include a base incentive determined by building type, plus a performance-based incentive calculated using the incremental annual MMBtu saved as compared to the calculated annual usage of the baseline, reference home defined by the applicable energy code. For all but MFHR and MFNC utilizing the ASHRAE pathway, the applicable code is IECC. For MFHR and MFNC utilizing the ASHRAE pathway, the applicable code is ASHRAE 90.1. The IECC code reference home is a UDRH utilized in the rating software to compare the rated home to a home of the same dimensions, but with components meeting the applicable IECC code as determined by the date of the project's building permit. The ASHRAE reference building is incorporated in the EPA-approved rating software. The building component values used in the UDRH are included in the NJ Protocols to Measure Resource Savings.

## Urban Enterprise Zone (UEZ) / Affordable Housing / Low- and Moderate Income Enhanced Incentive

The RNC Program will offer bonus incentives for eligible homes located in UEZs that are, or will be, Affordable Housing, and/or that are, or will be, occupied by those of Low- and Moderate Income (LMI).<sup>9</sup>

#### **ZERH** Rater Incentive

The RNC Program will offer Rater incentives to Raters for each single-family or multi-single homes that the Rater is successful in obtaining ZERH or ZERH+RE incentives.

#### Cooperative Marketing

The Cooperative Marketing Incentive offers cost-sharing for pre-approved advertising placed by contractors participating in the RNC Program. The cost sharing is for 25% of the cost of event booth spaces and 50% of the cost of other types of advertising. Those other types of advertising include print (newspaper, magazine, newsletter), yellow pages, direct mail, television, radio, web banner (digital), signage, billboard, and social media. In addition, other types of advertising may be approved on a case-by-case basis if the applicant can demonstrate its relative cost-effectiveness and benefits to NJCEP. The fiscal year cap per contractor is \$50,000. Contractors seeking to utilize the Program should contact <a href="mailto:coop@NJCleanEnergy.com">coop@NJCleanEnergy.com</a>.

## **Planned Program Implementation Activities**

The following program implementation activities will be undertaken. The RNC Program will:

• Implement the changes and updates described above;

<sup>&</sup>lt;sup>9</sup> LMI is defined in consultation with Board Staff and is set forth in the Program Guide, applications, and/or other Program documents.

- Continue to review applications and, on a first-in-time basis, issue Enrollment Letters that
  indicate, among other things, the amount of program funds committed to projects whose
  applications demonstrate their eligibility for the program as long as funding is available;
- Continue to process incentives for completed projects meeting program requirements;
- Utilize the Outreach Team to recruit new builder participants with an emphasis on ZERH projects;
- Actively engage with DOE, Raters, and builders to identify challenges of participating in the ZERH pathway; and
- Work with Board Staff and/or the Board's other contractors to identify a more consumer-friendly term for ZERH.

## **Quality Control Provisions**

Market-based delivery of rating services and certifications requires an effective set of standards for quality assurance. The responsibility for builder quality and ENERGY STAR and/or ZERH Certification rests with Raters, ratings providers, DOE, and EPA-approved VOOs, and MROs. It is incumbent upon the program to ensure that a robust system for identifying and communicating quality issues exists to manage the credibility of the savings and associated incentives offered.

To maintain a robust rating marketplace, TRC will perform inspections and conduct oversight processes on Raters and projects. Quality Assurance activities will continue to be performed by TRC based on the track record of Raters and builders measured through program inspections.

In addition to reviews for data completeness on all checklists, forms and applications, on-site inspections, and technical review of building and Rater files will be required based upon the demonstrated proficiency of the builders and Raters. Inspection requirements will be adjusted based upon the track record of the program participants. Initial inspection rates for new builders and rating companies will be above average and will decrease as they demonstrate proficiency in proper building techniques and in understanding the qualifying requirements of the program.

TRC will utilize the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

## **Commercial and Industrial Energy Efficiency Programs**

#### General Overview

The NJCEP C&I EE Programs are designed to help New Jersey's businesses use electricity and natural gas more efficiently. Efficiency in electricity and gas usage will promote competition and increase industry success ensuring job retention and creation. There is also an environmental benefit to electricity and gas usage efficiency. Each individual C&I Program is described in more detail in the relevant subsections below.

## The C&I Programs are designed to:

- Provide information on how to meet and exceed current energy code requirements so buildings operate more efficiently thereby minimizing operating costs;
- Encourage customers to choose high efficiency options when undertaking construction or equipment upgrades (i.e., when customers normally construct buildings or purchase building systems equipment);
- Support market transformation by providing information and incentives to help customers and designers make energy efficient equipment specification, building/system design, lighting design, and commissioning part of standard business practices; and
- Stimulate commercial and industrial customer investments in energy efficiency that will support the growth of the industries that provide these products and services.

The C&I Programs address the key market barriers that make it challenging for developers, designers, engineers, and contractors to routinely incorporate energy efficiency in their projects, including:

- Lack of familiarity or uncertainty with energy efficient building technologies and designs;
- Bias toward lower initial cost and lack of procedures for considering lifetime building operating costs during decision-making;
- Compressed time schedules for design and construction;
- Aversion to risk involved with specifying technologies less familiar to the local design community despite the proven reliability of efficient technologies and designs; and
- Priorities for engineers, designers, and contractors that often do not align with incentive structures and energy efficiency considerations.

The C&I Programs employ a set of offerings and strategies to address the market barriers noted above and to achieve market transformation in equipment specification, building/system design, and lighting design. These include:

- Program emphasis on intervention during customer-initiated construction and equipment replacement events that are a normal part of their business practice;
- Coordinated and consistent outreach to C&I customers, especially large and centralized players, such as national/regional accounts, major developers, etc.;
- Consistent incentive levels for efficient electric and gas equipment and design practices to permanently raise efficiency levels;
- Information and technical support provided to customers and designers to make energy efficient equipment specification, building/system design, lighting design, and commissioning part of standard business practices;

- Information and technical support provided to customers and designers to facilitate compliance with New Jersey's new commercial energy code, as well as future upgrades to that code; and
- Programs designed to meet the needs of a diverse set of customers, including non-profit entities, local governments, and businesses of all sizes.

Unless specifically stated otherwise in the following program descriptions, customers eligible for incentives under New Jersey's C&I EE Program are defined as non-residential electric and/or gas customers of one of New Jersey's regulated electric or gas utilities who contribute to the SBC. With the exception of the new construction segment, applicants to any of the NJCEP C&I EE Programs must be contributors to the SBC within the previous twelve months.

Construction projects are subject to prevailing wage requirements pursuant to <u>L.</u> 2009, <u>c.</u> 203, which amends <u>L.</u> 2009, <u>c.</u> 89, as well as the prevailing wage regulations promulgated by the New Jersey Department of Labor and Workforce Development pursuant to <u>L.</u> 1963, <u>c.</u> 150 as amended, and N.J.A.C. 17:27-1.1 et seq. and Affirmative Action rules. The prevailing wage rate shall be paid to workers employed in the performance of any construction undertaken in connection with BPU financial assistance programs. This law applies to contracts greater than the amount set forth by the New Jersey Department of Labor and Workforce Development. Unless otherwise stated in a program description, customers self-certify that they are complying with prevailing wage requirements by submitting an application to the program and receiving program incentives.

## **C&I Buildings: C&I New Construction**

#### "SmartStart"

Board Staff is developing a redesigned NC Program for consideration and possible approval by the Board in early FY23. Meanwhile, the SmartStart New Construction Program will continue to be administered as described below unless and until the Board approves the redesigned NC Program or other program changes.

## **Program Purpose and Strategy Overview**

The C&I New Construction ("SmartStart NC") Program was part of the original suite of C&I programs available through the NJCEP.

The SmartStart NC Program's primary goals are to induce C&I customers to choose high efficiency equipment rather than standard efficiency equipment when they are making purchasing decisions. This is accomplished by providing incentives and information on a wide range of high efficiency alternatives. Prescriptive Incentives— where dollar amounts are fixed for specific categories of equipment— are offered where one-for-one, business as usual replacements are typical. The Prescriptive Incentive applications are labeled by technology, such as lighting and HVAC, and defined as equipment most commonly recommended for energy efficient projects with well-established energy savings. Custom incentives are offered for non-standard equipment, complex systems, and specialized technologies that are not easily addressed through prescriptive offerings. Customers are provided a discrete yet flexible application process with the ability to submit one or multiple applications for any size project. The transparency of incentives aids customers in making informed decisions, while assisting energy efficiency professionals to better solicit a prospective energy efficiency project.

## Support for EMP Goals

This program will support many of the EMP's strategies and goals, including, among others, the following:

- Primary Goal 3.1 (Increase New Jersey's overall energy efficiency).
- Primary Goal 4.1 (Start the transition for new construction to be net zero carbon).

## **Program Description**

The SmartStart NC Program offers both prescriptive and custom incentives for the broad range of C&I customers who are in the market to purchase energy efficiency measures. On September 3, 2019, the State of NJ adopted the ASHRAE 90.1-2016 energy code for all commercial and industrial buildings. NJCEP utilizes this code in determining performance requirements and incentive eligibility.

The SmartStart NC Programs will include the following offerings:

- **Prescriptive Efficiency Measure Incentives** that provide fixed incentives for energy efficiency measures. Incentives are based on incremental costs (i.e., the additional cost above baseline equipment) taking into consideration market barriers, changes in baselines over time, and market transformation objectives. Eligible measures include:
  - o Electric Chillers:

- o Natural Gas Chillers;
- o Unitary HVAC (Heating, Ventilating, Air Conditioning) Systems;
- o Ground Source Heat Pumps ("Geothermal");
- o Gas Furnaces;
- o Variable Frequency Drives ("VFDs");
- o Gas Fired Water Heating;
- o Gas Fired Water Booster Heating;
- o Tankless Water Heaters;
- o Performance Based Lighting;
- o Kitchen Hood Variable Frequency Drives;
- o Low Intensity Infrared Heaters;
- o Boiler/AC Economizing Controls; and
- o Food Service Equipment.
- Custom Measure Incentives for more complex and aggressive efficiency measures. The process for calculating custom measure incentives is performance-based, which may include a commissioning component. Incentives are evaluated and determined via an incremental cost and energy savings analysis to be provided by the customer or customer's authorized representative (vendor/contractor). Determination of the appropriate baseline (existing conditions and/or industry standard) will be reviewed on a case-by-case basis subject to program review and approval. For measures that appear to have no clear baseline per energy code or recognized industry standard, the Program Manager will work with the applicant to define an appropriate baseline. The Program Manager has the discretion to determine the reasonableness of project costs for proposed technologies based on industry standards and other market research. Eligible electric and gas measures include lighting systems, HVAC systems, motor systems, large boiler systems, gas-engine driven chillers, and other non-prescriptive measures proposed by the customer. Technologies not explicitly listed as custom (per the filing and/or Program Guide) will be reviewed for eligibility and are subject to approval at the discretion of the Program Manager. More details regarding this process can be found below in this Compliance Filing under the Custom Measure Incentive Guidelines section and in this Compliance Filing's Appendix B: C&I and DER Incentives and General Rules found in the Custom Measures section.

Customers or their contractors must submit an application for the type of equipment they have chosen to install. The application should be accompanied by a related worksheet (where applicable), a manufacturer's specification sheet for the selected equipment, and one month of the most recent electric/natural gas utility bill. The Program Manager may also require additional utility bills if such bills are relevant to its review of any given application. To qualify for incentives, customers must be contributors to the SBC that corresponds to their incentive (e.g., must contribute to the SBC electric fund if applying for an electric incentive). For example, customers applying for lighting incentives must provide an investor-owned utility ("IOU") electric bill identifying SBC contribution. Similarly, an IOU gas bill identifying SBC contribution is required for natural gas saving measures such as gas heating. Program representatives will then review the application package and approve it, reject it, and/or advise of additional upgrades to equipment that will save energy costs.

## **Target Markets and Eligibility**

The C&I New Construction Program targets commercial, educational, governmental/institutional, industrial, and agricultural customers engaged in customer-initiated construction events including public school construction, other new building construction, and substantial renovations (also known as gut rehabilitations). The program may be used to address economic development opportunities and transmission and distribution system constraints. It is primarily geared towards the mainstream C&I market, as opposed to programs that target specialized markets such as the Large Energy Users Program, the Local Government Energy Audit Program, and the Direct Install Program. Applicants to the program must be contributors to the SBC.

#### **Incentives**

The tables in Appendix B: C&I and DER Incentives and General Rule list the incentives for the C&I New Construction Program. The incentives vary by size, technology, and efficiency level and will be paid based on specific eligibility requirements. The program offers both prescriptive incentives and custom measure incentives.

#### Custom Measure Incentive Guidelines

The program utilizes a performance-based approach to determine incentives for custom equipment. Established incentive caps for the program are the lesser of:

- \$0.16/kWh and/or \$1.60/therm based on estimated annual savings;
- 50% of total installed project cost; or
- buy down to a one-year payback.

The program will allow a single facility with multiple utility accounts to submit a proposed custom project under one application. A customized set of Microsoft Excel-based forms is required for all projects. These forms summarize the critical components of the custom measure, including a detailed description of the technology, installed project cost, and projected savings. Upon project completion, additional documentation is required to confirm that the measures were installed as proposed and that any changes during construction are reflected in the final savings values. As is clearly described in the program forms, certain measures may require post-installation metering, trending analysis, and/or the installing contractor's Statement of Substantial Completion. Projects will use ASHRAE 90.1-2016 as the baseline for estimating energy savings and the proposed measure(s) must exceed ASHRAE 90.1-2016 standards, where applicable. In cases where ASHRAE guidelines do not apply, the program will require that custom measures meet or exceed industry standards per the Consortium for Energy Efficiency ("CEE"), EPA ENERGY STAR, or using such resources as the current New Jersey baseline studies and other market research; the program experience of the Commercial/Industrial Program Manager; and experience of the New

<sup>&</sup>lt;sup>10</sup> A given substantial renovation project may be eligible for a utility-sponsored EE program as well as for this NJCEP Program. If it is, the applicant would be able to choose which program it would utilize. I.e., the applicant could have one or the other program, but not both, cover the project. NJCEP and the relevant utility-sponsored EE programs have, or will have, program rules and procedures to implement the foregoing.

Jersey utilities or utility/public program experience from other comparable jurisdictions. The Program Manager will provide contractors with program spreadsheets that include standard formats for reporting program savings, as well as standard incentive calculations.

As a general matter, the preference is to avoid repeated custom measure applications. Accordingly, the Program Manager will generally consider the possibility of developing and proposing a prescriptive standard and incentive once it has received three or more custom applications for the same measure.

#### Account/FY Cap:

In addition to any other caps described elsewhere in this Compliance Filings, SmartStart incentives will also be capped at a maximum of \$500,000 per electric account and \$500,000 per natural gas account, in each case, per FY.

## **C&I New Construction Application Deadlines**

To be eligible for related incentives, an application for custom measures must be submitted to the Program Manager prior to the installation of any equipment and applications for all other measures must be submitted within 12 months of equipment purchase. Documentation confirming the date the equipment was purchased, such as a material invoice or purchase order, must be provided to the Program Manager.

Notwithstanding the above, all applicants are strongly encouraged to obtain the Program Manager's approval and an incentive commitment prior to commencing installation or construction. Customers implementing projects without the Program Manager's approval risk having their project deemed ineligible for incentives.

## **Delivery Methods**

As new technologies are introduced and prices for measures change, sometimes in response to program offerings, Program Managers will continuously monitor technologies and costs and adjust program incentives accordingly. The Program Manager will propose adjustments to program offerings based on program experience, the results of any evaluations, program and market studies, as well as other state/regional market research, and current pilot/demonstration projects.

## **Quality Control Provisions**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all C&I program participants. All applications received are reviewed to confirm compliance with eligibility requirements. Additionally, all technical information submitted in support of the application is reviewed to confirm measure qualification and to verify the incentive calculation. Applicant-supplied information and Program Manager-performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence.

A sample percentage of applications will be randomly selected for inspections and Quality Control file reviews. The specific percentages by program are outlined in the individual program guideline documents. Inspections include a site visit to verify customer eligibility and energy efficient measure technical specifications that result in a verification of the incentive calculation. A field inspection report is prepared and maintained in the project file for future verification.

TRC will utilize the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

## **C&I Buildings: Pay for Performance - New Construction**

Board Staff is developing a redesigned NC Program for consideration and possible approval by the Board in early FY23. Meanwhile, the Pay for Performance - New Construction Program will continue to be administered as described below unless and until the Board approves the redesigned NC Program or other program changes.

## **Program Purpose and Strategy Overview**

The Pay for Performance – New Construction Program ("P4P NC") is intended to encourage developers and design professionals to look for ways to optimize design, operation, and maintenance of new construction and substantial renovation projects in order maximize energy cost savings. The P4P NC Program does this by requiring the use of standardized energy simulation software to estimate energy costs of the proposed design compared to a code compliant baseline. A portion of project incentives is tied to actual building performance to emphasize to building owners the critical value of addressing operational practices. The P4P NC Program aligns with other rating authorities such as LEED, ENERGY STAR, and ASHRAE Building Energy Quotient.

## Support for EMP Goals

This program will support many of the EMP's strategies and goals, including, among others, the following:

- Primary Goal 3.1 (Increase New Jersey's overall energy efficiency).
- Primary Goal 4.1 (Start the transition for new construction to be net zero carbon).

## **Program Description**

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The P4P NC Program takes a comprehensive, whole building approach to energy efficiency in the design and operation of new commercial and industrial buildings, as well as in substantial renovations. The program provides tiered incentive levels correlated to the modeled energy cost savings as demonstrated in the proposed design and includes a performance component to reflect the value that effective building operation has in determining energy use. This market-based program relies on a network of partners selected through a Request for Qualifications process. Once approved, partners may provide technical services to program participants. Although partners work under contract with building owners, acting as their "energy expert", they are required to strictly follow program requirements. Partners will be required to develop a Proposed ERP for each project. The Proposed ERP details a set of recommended measures that will achieve the minimum performance target. Partners will then provide an As-Built ERP, along with a

<sup>&</sup>lt;sup>11</sup> A given substantial renovation project may be eligible for a utility-sponsored EE program as well as for this NJCEP Program. If it is, the applicant would be able to choose which program it would utilize. I.e., the applicant could have one or the other program, but not both, cover the project. NJCEP and the relevant utility-sponsored EE programs have, or will have, program rules and procedures to implement the foregoing.

Commissioning Report to demonstrate that recommended measures are installed and functioning. Lastly, the partner will benchmark the building following one year of operation to document how well the building is operating relative to the As-Built ERP.

Participants will be required to work with an approved partner to develop the Proposed ERP and facilitate the incorporation of the recommended energy efficiency measures. The submitted Proposed ERP must include a package of energy efficiency measures that achieve the minimum performance target of 5% savings for commercial and industrial buildings and 15% for multifamily buildings compared to ASHRAE 90.1-2016. The minimum performance target will be measured in terms of energy cost, which is consistent with ASHRAE 90.1, Appendix G, EPAct Federal Tax Deductions and LEED NC. Program Guidelines will outline equivalent savings values depending on the modeling compliance path chosen.

Partners are required to develop whole building energy simulations using approved simulation tools. The list of approved tools will be based on the software requirements outlined in ASHRAE 90.1 Section 11 or Appendix G or as approved by the Program Manager. The program will offer two modeling compliance paths to demonstrate that the proposed design meets or exceeds the minimum performance target.

## Path 1: ASHRAE Building Energy Quotient (bEQ) As-Designed Path

Under this path, the partner will develop a single energy model representing the proposed project design using prescribed modeling assumptions that follow *ASHRAE Building Energy Quotient* ("*bEQ*") *As-Designed* <sup>13</sup> simulation requirements. Proposed design simulation results, including Energy Use Intensity ("EUI<sub>standard"</sub>), will be measured against the median EUI for the building type ("EUI<sub>median"</sub>) to evaluate the Performance Score.

Performance Score = (EUI standard / EUI median) x 100.

Measures must be modeled within the same proposed design energy model, but as parametric runs or alternatives downgraded to code compliant parameters.

## Path 2: ASHRAE 90.1-2016 Appendix G Path

Under this path, the partner will model a baseline and proposed building using ASHRAE 90.1-2016 Appendix G *modified by Addendum BM*. Addendum BM sets a common baseline building approach that will remain the same for ASHRAE 90.1-2016 and all future iterations of ASHRAE 90.1, and is roughly equivalent to ASHRAE 90.1-2004. To comply with ASHRAE 90.1-2016, a proposed building has to have energy cost savings of 11-40% from the Addendum BM baseline,

Note also that applications for projects that submit documentation they received their construction/building permits under ASHRAE 90.1-2013 will have their P4P NC applications processed using ASHRAE 90.1-2013 as their baseline.

<sup>&</sup>lt;sup>12</sup> Energy Target is rounded <u>down</u> to two significant figures e.g. 0.0487 is rounded to 0.04 or 4%.

<sup>&</sup>lt;sup>13</sup> http://buildingenergyquotient.org/asdesigned.html

depending on the building type and climate zone. Measures must be modeled as interactive improvements to the ASHRAE 90.1-2016 Appendix G baseline with Addendum BM accepted.

Each project, regardless of compliance path selected, must have at least one measure addressing *each* of the following building systems: envelope, heating, cooling, and lighting (e.g. increased insulation, improved HVAC efficiency, lighting power density below code requirements, etc.). Buildings that are not heated (e.g. refrigerated warehouse) or not cooled (e.g. warehouse) will not be required to have a measure addressing the missing building system. Measures are defined as components that exceed ASHRAE 90.1-2016 requirements.

#### Core and Shell vs. Tenant Fit-Out Considerations

Generally, P4P NC projects are required to evaluate the whole building design. Further, if a P4P NC application is submitted to the Program, that same building(s) cannot also submit applications to other programs. An exception to this rule may apply to eligible projects pursuing Core & Shell separate from tenant fit-out improvements, which may fall into one of two scenarios below.

Scenario 1: Core & Shell and Tenant Fit-out are combined - In this scenario, all aspects of the design (whole building) must be included under a single P4P NC application and treated as a single project following all Program Guidelines, as typical. This may apply where:

- Developer is funding and constructing both Core & Shell and Tenant Fit-out; or
- High performance systems are specified and funded for the tenant space separate from Core & Shell, but the building owner and tenant have come to an agreement to include both scopes of work under a single project.

Scenario 2: Core & Shell Separate from Tenant Fit-out - This scenario applies when the Core & Shell work is known, but the tenant space development is unknown and/or is funded separately. In this case, the Core & Shell is treated as a separate project from the Tenant Fit-out and a building may apply for P4P NC for either Core & Shell or Tenant Fit-out(s), but not both. The determining factor depends on which scope will include design and construction of the central HVAC system, in which case:

- P4P NC incentives will apply to all conditioned square footage of the building serviced by the central HVAC in the project's scope of work;
- The project scope applying for P4P NC (e.g. Core & Shell or Tenant Fit-out) must be able to meet all requirements for P4P NC on its own;
- Any Tenant Fit-out or Core & Shell work not included in P4P NC (and connected to a non-residential electric/gas account paying into the SBC) may seek incentives through the C&I Prescriptive or Custom Measure programs for eligible equipment.

A project may apply to the program at any point during the design phase. Projects that have begun construction may still apply so long as measures have not been purchased prior to receipt of the program application. Any measures installed prior to approval of Proposed ERP are done so at the project's risk. In the event the equipment selected does not qualify for an incentive, it will be removed from the Proposed ERP. Projects that cannot identify efficiency improvements that meet the above requirements will be referred to the appropriate C&I Buildings Program(s).

See Program Guidelines at www.njcleanenergy.com for additional modeling considerations.

## **Target Market and Eligibility**

The P4P NC Program is open to new C&I construction projects with 50,000 square feet or more of conditioned space. The Program Manager has the discretion to approve projects that are within 10% of the minimum 50,000 square foot threshold. Projects may include a single building meeting square footage requirements or multiple buildings provided those buildings are owned by the same entity, are located on adjacent properties, and are designed and constructed within the same time period. <sup>14</sup> Multiple buildings that are grouped into one program application are viewed as a single project that is eligible for one set of program incentives and all incentive caps apply to the group of buildings.

Due to the comprehensive design of this program, projects may not apply for incentives in other NJCEP programs while enrolled in P4P NC for the same facility(ies). All eligible measures must be considered in P4P NC, with the exception of on-site generation (e.g. CHP program). Exceptions also apply to Core & Shell and/or Tenant Fit-out projects as set out in the foregoing paragraphs. Additional exceptions may be considered by the Program Manager on a case-by-case basis.

## **Multifamily Buildings**

The P4P NC Program accommodates certain types of multifamily buildings. Applicants who pursue their multifamily projects through the ENERGY STAR Multifamily New Construction (MFNC) program may apply for NJCEP incentives through the RNC Program; applicants who do not pursue their multifamily projects through the ENERGY STAR MFNC program may apply for NJCEP incentives through the P4P NC Program. Regardless of which program the applicant pursues, all applicable NJCEP program requirements must be satisfied in order to receive incentives. Please see Appendix C: Multifamily Decision Tree for further guidance on multifamily program eligibility.

Low-rise (and mid-rise where appropriate), garden-style complexes will be treated as one project under the P4P program. In other words, if there are 10 garden-style buildings that are part of one multifamily community, all 10 will be aggregated into one P4P NC application. The 50,000-square-foot participation threshold will be met through this aggregation (including common area and in-unit). The minimum performance target (as well as all other program requirements) will also be determined on an aggregated basis. Only one set of incentives will be paid per project and all incentive caps apply.

#### **Partner Network**

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Existing approved P4P NC Partners will need to complete online re-training on a regular basis as determined by the Program Manager in order to remain an approved partner in the program. The Program Manager may offer select partners one-on-one training on projects to ensure success in

<sup>&</sup>lt;sup>14</sup> For the purpose of tracking technical reviews and site inspections, each building addressed within a multi-building ERP may be considered a separate project. This is necessary because although a single ERP will include all of the necessary project information, the review of each of the building simulation models will require individual attention. Similarly, site inspections will take considerably longer for multi-building projects as each building will require an inspection. Where applicable, administrative tracking will be associated with any approved sampling of building simulation models (i.e., if a single model is developed to represent several similar buildings).

the program, as well as kick-off meetings upon project enrollment. Depending on program demand, the Program Manager may provide subsidized Energy Modeling Training Sessions for Program Partners related to ASHRAE 90.1-2016. (See also the P4P EB section of this Compliance Filing.)

## **Program Offerings and Incentives**

The P4P NC Program's incentive structure was conceived to encourage the design and achievement of comprehensive energy cost savings and are, therefore, released in phases upon satisfactory completion of each of these three program milestones:

- 1. Submittal and approval of a Proposed ERP with proposed design meeting all program requirements;
- 2. Submittal and approval of an As-Built ERP and Commissioning Report confirming installation and operation of recommended measures per the Proposed ERP. Changes between proposed and as-built design must be accounted for at this point, although as-built project must still meet all program requirements; and
- 3. Submittal of ENERGY STAR Portfolio Manager benchmark based on first year of operation with score of 75 or higher. Building types not eligible for ENERGY STAR Certification can qualify for this incentive by obtaining ASHRAE Building Energy Quotient (bEQ) In-Operation Certification with equivalent score as set by Program Guidelines. Additional certification for compliance may be considered by Program Manager.

Incentives are paid based on the rate schedule in the table below. At the customer's written request, incentive payments may be assigned or directed (including re-assignment or re-direction) to either the customer, the partner, or other designated representative.

Cost or Source Energy Incentive by Building Type Reduction from Per Square Foot 90.1-2016 Baseline Minimum Performance 15% Multifamily Industrial/High Commercial and **Energy Use Intensity** Requirement 5% All other Multifamily + 0 - < 2% (Tier 1) \$0.10 \$0.08 + 2 - <5% (Tier 2) \$0.12 \$0.10 Incentive #1 + 5% or greater (Tier 3) \$0.14 \$0.12 Proposed Energy Max \$50,000.00 Reduction Plan \$0.04 Pre-Design Bonus \$20,000.00 Max Incentive #2 +0-<2% (Tier 1) \$1.00 \$0.80 As-Built Energy + 2 - <5% (Tier 2) \$1.20 \$1.00 Reduction Plan and Cx

Table 1: P4P NC Incentive Schedule

+ 5% or greater (Tier 3)

Report
Incentive #3

**Building Performance** 

\$1.40

\$0.40

\$1.20

\$0.35

- Incentive #1 is contingent on moving forward with construction and must be supported by required program documentation (e.g. signed Installation Agreement). The Program Manager, in coordination with the Division of Clean Energy, may waive this contingency in extreme situations where construction is halted due to economic or other external factors. If a project is cancelled after the receipt of Incentive #1, the incentive amount shall be returned to NJCEP. If the Incentive #1 payment is not returned to NJCEP, the customer/partner will not be eligible in the future for another Incentive #1 payment for the same facility.
- The total of Incentives #1, #2, and #3 combined shall not exceed \$2,000,000 per project, assuming both electric and natural gas measures are recommended and implemented. Should only electric measures or only gas measures be recommended and implemented, then the total of Incentive #1, #2, and #3 combined shall not exceed \$1,000,000 per project. The foregoing would place a \$1,000,000 per project cap on electric-only facilities. Entity caps also apply.
- Certain circumstances may impact an incentive amount after a commitment has been made:
  - o Increase or decrease in project square feet may increase (budget permitting) or decrease the incentive;
  - Significant modifications to the approved scope of work, including addition and removal of a measure, may impact the overall project savings causing a project to move between incentive tiers. Incentives will be adjusted up (budget permitting) or down accordingly; and
  - o Generally, any required adjustments will also include under or overpayment of incentives already paid.

Incentive #1 Pre-Design Bonus (Integrative Process): Projects that are in pre-design or schematic design may be eligible for a higher Incentive #1. The goal is to incentivize applicants to think critically about their building design from an energy efficiency standpoint early in the process when changes are easier to make, thereby supporting high-performance, cost-effective project outcomes. To qualify, the partner will need to work with the applicant beginning in pre-design and continuing throughout the design phases. They will perform a preliminary "simple box" energy modeling analysis before the completion of schematic design that explores how to reduce energy loads in the building and accomplish related sustainability goals by questioning default assumptions. They will then document how this analysis informed building design decisions relative to owner's project requirements, basis of design, and eventual design of the project. This submittal shall be submitted after application approval, but prior to the Proposed ERP. Although pre-construction inspections are not routinely performed in this program, TRC may inspect projects applying for this bonus.

## **Quality Control Provisions**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all P4P NC Program projects. All applications received are reviewed to confirm compliance with eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of measure qualification and incentive calculation. Applicant supplied information and project technical data are entered into the database. Electronic files are created for all documents and for ongoing project correspondence. The Program Manager reviews submitted ERPs.

The Program Administrator quality control staff will perform pre- and post-construction inspections, will regularly conduct pre-approval technical reviews of ERPs, and will perform file reviews on a sampling of applications prior to incentive payments. The selection of inspections and reviews will be based on a pre-determined, random sampling percentage.

TRC will utilize the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

## C&I Buildings: Large Energy Users

## **Program Purpose and Strategy Overview**

The purpose of the Large Energy Users Program ("LEUP") is to foster self-investment in energy efficiency and combined heat and power projects for New Jersey's largest C&I utility customers. This program was established in 2011 as a pilot following requests from these customers to develop a program specific to their needs and in recognition of their large contribution to the SBC. These large, sophisticated facilities have unique needs and internal processes which may not align with the structure of other C&I programs with respect to submission criteria or timing. The LEUP offers a more flexible process to these customers, many of whom have engineers on staff, but in turn requires that participating facilities comply with accountability processes to obtain incentives, thus assuring that the desired efficiency is achieved. The program supports various types of large customers spanning the pharmaceutical, higher education, industrial, building management, data center, and other commercial sectors.

Specific design features include:

- Ability to submit multiple projects/buildings under one application;
- Flexible application submission process providing the customer the opportunity to submit up to 3 scopes of work in each program year;
- Ability to participate in other programs while engaged in LEUP.

## Support for EMP Goals

The LEUP will support many of the EMP's strategies and goals, including, among others, the following:

- Primary Goal 3.1 (Increase New Jersey's overall energy efficiency).
- Primary Goal 3.3 (Strengthen building and energy codes and appliance standards), especially its Goal 3.3.3 (Establish mechanisms to increase building efficiency in existing buildings).

## **Program Description**

Incentives are awarded to customers that satisfy the program's eligibility and program requirements ("Eligible Entities" or "Eligible Customers") for investing in self-directed energy projects that are customized to meet the requirements of the customers' existing facilities, while advancing the State's energy efficiency, conservation, and greenhouse gas reduction goals. The program relies on eligible customers and their technical consultants to identify and develop qualifying energy efficiency projects that they believe will be beneficial for their operations and will meet program criteria as described below. In support of LEUP projects, the Program Manager will provide the following services:

- Budget management and energy savings reporting;
- Review and approval/rejection of all submitted enrollment submittals for program eligibility;

- Review and approval/rejection of all submitted Draft Energy Efficiency Plan ("DEEP") submittals; <sup>15</sup>
- Review and approval/rejection of all submitted Final Energy Efficiency Plan ("FEEP") submittals;
- Technical assistance via email and telephone to assist entities in the proper submittal of the required information;
- Updates of data tracking tools to incorporate additional tasks related to this initiative; and
- Incentive processing including issuance of checks and tracking/recordkeeping.

Eligible customers who wish to participate in the LEUP must comply with the standards and criteria below.

## **Target Markets and Eligibility**

The LEUP is available on a first come, first served basis so long as funding is available to existing, large C&I buildings that meet the following qualifications:

- Eligible entities must have incurred at least \$5,000,000 in annual energy costs (on a presales tax, aggregate of all buildings/sites) during the immediately preceding fiscal year. Eligible entities shall be defined as (1) Public: having distinct and separate budgetary authority; (2) Public Schools: having distinct and separate budgetary authority; and (3) Private: Non-residential companies including all related subsidiaries and affiliates regardless of separate EIN numbers or locations within New Jersey. Consistent with Docket No. EOO7030203.
- Further, in order to be considered for incentives, the billed peak demand of each facility included in the DEEP/FEEP must meet or exceed 400kW and/or 4,000 DTherms.

Entities interested in applying to participate in the program will submit the following information through form(s) available through the NJCEP website and/or Program Manager:

- Number of buildings/sites and list of all associated utility and third-party supplier accounts;
- Energy cost, billed usage and number of location or premise IDs as provided by utility for each account from previous fiscal year

#### Submittal Requirements for Fund Commitment

Qualifying entities shall submit a FEEP to the Program Manager for existing facilities only. The FEEP must be submitted to the Program Manager for review three (3) months from the date of the DEEP approval letter.

#### **Program Standards**

- 1. All ECM must meet Minimum Performance Standards, which may be fulfilled during professional engineer review, which shall be understood as the most stringent of:
  - a. Large Energy Users Program Guide Appendix A;

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<sup>&</sup>lt;sup>15</sup> Note: the approved entity may choose to skip the DEEP submittal and to submit only a FEEP.

- b. ASHRAE 90.1-2016; and
- c. Local code
- 2. ECMs must be fully installed no later than twelve months from approval of the FEEP, provided, however, that the Program Manager may allow up to twenty-four months where special circumstances beyond the reasonable control of the applicant (such as exceptionally large or complex projects or projects experiencing unusually severe supply chain disruptions or personnel shortages) justify such longer period. In addition, up to two extensions may be granted for a period of up to six months with satisfactory proof of project advancement and upon due cause otherwise. Project advancement may be demonstrated through copies of permits, equipment invoices, installation invoices indicating percentage complete, updated project schedules, and similar documents.

#### Limitations/Restrictions

- 1. New construction and substantial renovation (also known as gut renovation) projects are not eligible under the program.
- 2. Incentive will be limited to energy efficiency measures. The following shall not be included as part of this program:
  - a. Renewable energy; and
  - b. Maintenance energy saving projects
- 3. Incentives shall only be available for ECMs approved in the FEEP. The Program Administrator may waive this restriction on a case-by-case basis using the Board's usual waiver standard.
- 4. ECMs already installed or under construction will not be considered for incentives and shall not be included in FEEP. The Program Administrator may waive this restriction on a case-by-case basis using the Board's usual waiver standard.
- 5. Federal grants/incentives are allowed. Other state grants/incentives are allowed provided they do not originate from NJCEP funds. NJCEP loan funds are allowed. Funds provided by a New Jersey investor owned utility ("IOU") are not allowed. The total of federal, state, and LEUP funding shall not exceed 100% of total project cost.
- 6. No DEEP or FEEP may have more than 50% of the overall total energy savings coming from lighting and/or lighting controls measures, unless the Program Manager determines the applicant has demonstrated the scope of work is otherwise comprehensive in that it:
  - a. Assesses of the cost-effectiveness of installing energy conservation measures in each of the following areas in a given building: (i) heating systems, (ii) cooling systems, (iii) ventilation systems, (iv) domestic hot water systems, and (v) building envelopes, and
  - b. Implements all cost-effective energy conservation measures identified through the foregoing assessment in a given building or, as to any such measures not implemented, explains why such implementation would not be practicable. For example, a scope of work that does not include replacement of a 30-year-old atmospheric boiler would not be allowed to include lighting savings greater than 50% of the total energy savings.

## Review and Payment Framework

1. Upon receipt of the FEEP, Program Manager will have sixty (60) days to review each submittal and provide comments to entity.

- 2. Program Administrator will present FEEPs to Board for approval as required by Board policy and commitment of incentive. The Program Administrator may conduct up to three site inspections per FEEP submission including a pre-inspection at 50% completion and 100% completion, as required.
- 3. If ECMs are not completed within the specified timeframe, incentive commitment may be forfeited.
- 4. Entity will provide M&V data as requested and will comply with any program evaluation activities.

## **Program Offerings and Incentives**

The program will offer a maximum incentive, which will be the lesser of:

- 75% of total project(s) cost as identified in the FEEP(s). Total project costs may include pre-engineering costs, soft costs, and other costs associated with the preparation of the FEEP; and
- For all lighting measures: \$0.16/kWh per projected kWh saved annually; for all other measures: \$0.33 per projected kWh saved annually; \$3.75 per projected therms saved annually, all as identified in the FEEP(s).

The program's incentives are also limited by the Entity/FY Incentive Cap at Appendix B: C&I and DER Incentives and General Rules, C&I / DER Entity/FY Incentive Caps.

The program has a minimum incentive commitment per FEEP of \$100,000. Projects with incentives below this threshold will be redirected to other programs. Incentives shall be reserved upon approval of the DEEP. Program funds will be committed upon approval of FEEP by the Program Manager and, if required, by BPU. Incentive shall be paid upon project completion and verification that all program requirements are met. Entities may submit up to three (3) DEEP/FEEPs throughout the program year.

## **Quality Control Provisions**

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all program participants. All energy efficiency plans are reviewed upon receipt to confirm compliance with eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of energy efficient measure qualification and incentive calculation. Applicant supplied information and Program Administrator performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence. Pre- and/or post- inspections and quality control file reviews will be conducted, as required.

TRC will utilize the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

## C&I Buildings: Customer Tailored Energy Efficiency – New Construction

Board Staff is developing a redesigned NC Program for consideration and possible approval by the Board in early FY23. Meanwhile, the Customer Tailored Energy Efficiency Program – New Construction Program ("CTEEP NC") will continue to be administered as described below unless and until the Board approves the redesigned NC Program or other program changes.

## **Program Purpose and Strategy Overview**

This program supplements the current New Jersey C&I incentive programs by offering a streamlined approach to developing and implementing energy efficiency projects for mid-to-large customers. The key features of the program:

- Allows customers to bundle multiple prescriptive and custom measures into one application with one project delivery approach;
- Customers can receive incentives for qualified advanced and emerging energy efficiency technologies that are not currently addressed under SmartStart;
- Technical assistance incentives offered to help minimize the soft costs associated with developing an energy efficiency project;
- Leverages existing energy efficiency professional networks;
- Larger customers with multiple measures can access incentives for their targeted energy efficiency projects without enrolling in a whole-building program; and
- Performance verification to engage customers after their project is complete to ensure persistence of savings.

The goals of the program are to:

- increase participation among mid to large customers;
- increase the amount of energy saved per project for participating customers;
- understand from participating customers whether assistance beyond measure incentives will facilitate the installation of energy efficiency projects;
- promote the installation of advanced lighting controls in conjunction with high efficiency LED luminaires; and
- collect information and data that can inform program changes or new program designs in the future.

#### Support for EMP Goals

This program will support many of the EMP's strategies and goals, including, among others, the following:

- Primary Goal 3.1 (Increase New Jersey's overall energy efficiency).
- Primary Goal 4.1 (Start the transition for new construction to be net zero carbon).

## **Program Implementation Description**

The program was developed and launched in FY18 in response to customer concerns regarding the application process for projects involving completion and submission of multiple SmartStart

applications. It will be promoted through traditional methods, the C&I Outreach Account Managers, and energy efficiency professionals.

The program process is as follows:

- 1. **Outreach and Recruitment** The CTEEP NC will be included in any C&I customer outreach conducted by the Account Managers. Information about it will be placed on the web site and shared with the Ombudsman's office and trade allies who can assist in promoting the pilot to their customers.
- 2. **Enrollment** The enrollment application will allow the Program Management team to assess the opportunities, the status of the potential project, and to schedule a Scoping Session meeting where the Case Manager performs a needs assessment to determine whether the customer requires additional assistance such as referral to technical expertise, financial assistance, internal sales, or benchmarking.
- 3. **Benchmarking (Optional)** CTEEP NC will offer benchmarking services to help customers identify which opportunities and facilities may benefit most from energy improvements.
- 4. **Energy Efficiency Plan Development** Upon application acceptance, the customer works with its technical experts to develop the EEP.
- 5. **Incentive Commitment** Upon acceptance of a complete EEP, the Program Manager will commit incentives as defined by the EEP and program requirements. The incentive commitment will be valid for twelve (12) months. The Program Manager may extend the initial expiration period in two, six (6) month intervals.
- 6. **ECM Installation** The customer will submit final documents necessary to process the incentive payment consistent with the schedule defined below.
- 7. **Performance Verification** The performance verification submission applies to custom measures only. A customer will receive the final 10% of custom measure incentives consistent with the schedule defined below.

## **Target Markets and Eligibility**

The target customer size is 50,000 square feet.

Additional criteria that will be considered for inclusion:

- Customers with complex operations and/or unique energy usage profiles who would most benefit from custom assessments of efficiency opportunities;
- Customers whose efficiency opportunities, barriers to investment, and/or business needs suggest they may benefit from support beyond just financial incentives (e.g. technical analysis, financial analysis, etc.);
- Customers with projects requiring multiple applications under existing program offerings; and

• Customers who are good candidates for installation of new, innovative, or advanced efficiency technologies.

## **Program Offering and Incentives**

Financial incentives offered to customers of the CTEEP NC will be the same as those available through the existing prescriptive and custom program offerings. However, for ease of customer participation, the financial incentives will be bundled into a single "package" application. The total incentive available for any project will be equal to the sum of the incentives available through the existing prescriptive and custom program offerings for the measures installed. For ECMs possessing both prescriptive and custom features, the Program Manager will have discretion to determine if some or all of the energy efficiency benefits will be eligible under the custom incentive structure.

## Prescriptive Measures:

 Measures meeting the requirements of the current SmartStart Building Program will receive the established incentive (including any applicable enhancements) under that program.

#### Custom Incentives:

- \$0.16 per kWh
- \$1.60 per therm
- 50% of project cost
- Buy-down to 1-year payback
- Same enhanced incentives as for the current SmartStart Building Program

#### Technical Assistance:

In addition to measure incentives, where initial design costs are a barrier to the pursuit of projects that appear to be promising, the Pilot may offer customers an additional incentive towards design assistance or technical support provided by an independent third party design professional. Incentives will be available for up to 50% of the cost of the design/technical assistance up to a maximum of \$10,000 upon approval of the NJCEP Program Manager, with half of the incentive payable upon proof of construction kick-off and the remainder upon installation of the recommended measures.

#### *Incentive cap:*

The same caps in SmartStart Program apply here, including the \$500,000 per utility account cap; however, the Technical Assistance incentive does not count towards this incentive cap.

<sup>&</sup>lt;sup>16</sup> Independent in this case means the design professional does not sell or represent products that are being considered for installation.

#### Payment Schedule

Incentive payments are made along the life of a project as outlined below.

Project material/labor invoices will signify projected completion followed by a post-inspection as deemed appropriate.

Table 2: CTEEP NC Schedule of Payments

Schedule of Payments				
Type of Incentive	Milestone 1 Construction Kick- Off	Milestone 2 Substantial Completion	Milestone 3 Performance Verification	
Technical Assistance Incentive	50%	50%	-	
Base Incentives - Prescriptive	-	100%	-	
Base Incentives - Custom	-	90%	10%	

Milestone 1: The EEP is approved and construction contracts are in place.

Milestone 2: All work is installed and new equipment and systems are generating energy

savings. Multiple payments may be provided.

Milestone 3: Performance Verification is complete. Multiple payments may be provided.

This milestone may occur between 3-6 months after substantial completion.

## **Program Standards**

- **Prescriptive measures** must meet the minimum requirements of the SmartStart Buildings program.
- **Custom measures** must meet or exceed current SmartStart Custom requirements (with the exception of minimum energy savings requirements) or the Minimum Performance Standards for the LEUP.
- Advanced Lighting Control Systems must be listed on the Design Lights Consortium's Oualified Products List.
- **Emerging Technologies** must meet current building codes or industry standards, as applicable.

#### Limitations/Restrictions

- Renewable and power storage technologies including, but not limited to, photovoltaics, fuel cells, battery storage, and microturbines are not eligible.
- Combined heat and power systems are incentivized under New Jersey's Combined Heat and Power program and are not eligible for CTEEP NC incentives.
- Previously installed measures (i.e., any measures installed prior to enrollment) are not eligible

- Measures that do not save energy (kWh or therms) are not eligible. Customers may install measures that exclusively reduce operating costs and/or energy/demand costs, but they may not be included in the CTEEP NC EEP.
- Operations & Maintenance and behavioral measures are not eligible. Behavioral measures include those where equipment is adjusted to improve performance or change energy use. Behavioral measures may include boiler clean & tunes, commissioning of existing equipment, thermostat adjustment, or seasonal equipment removal.

## **Quality Control Provisions**

All applications are reviewed upon receipt to verify adherence to eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of energy efficient measure qualification and incentive calculation. Applicant supplied information and program administrator performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence. Inspection protocols for custom measure projects will require a pre-determined percentage of pre- and post-inspections. Pre-inspections may be waived after successful completion of a Scoping Session.

TRC will utilize the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

# Local Government Energy Audit

## **Program Purpose and Strategy Overview**

The Local Government Energy Audit Program ("LGEA") Program was launched as part of NJCEP's portfolio in 2008 to provide financial incentives to cover the cost of having an energy audit performed on eligible facilities owned by municipalities, school districts, 501(c)(3) nonprofits, and other local and state government entities ("Applicant" or "Applicants").

The goal of the energy audit is to provide Applicants with information on how their facilities use energy, identify ECMs that can reduce energy use, and put Applicants in a position to implement the ECMs. The energy audits also help guide Applicants towards appropriate incentive programs to help reduce costs associated with implementing the ECMs.

The program is also used as a means of qualifying applicants for other relevant initiatives, most notably the Energy Savings Improvement Program ("ESIP") and Sustainable Jersey's municipal and school programs. Collaboration with these programs can provide cost-effective benefits to these publicly funded facilities while helping to achieve mutual goals.

#### Support for EMP Goals and Strategies

The LGEA Program will support many of the EMP's strategies and goals, including, among others, the following:

- Goal 1.1.6 (Continue to improve NJ TRANSIT's environmental performance).
- Primary Goal 3.1 (Increase New Jersey's overall energy efficiency).
- Primary Goal 3.3 (Strengthen building and energy codes and appliance standards), especially its Goals 3.3.5 (Improve energy efficiency in, and retrofit state buildings to, a high performance standard).
- Primary Goal Primary Goal 4.1 (Start the transition for new construction to be net zero carbon), especially its Goal 4.1.1 (Electrify state facilities).

# **Program Description**

This program is implemented as follows:

- The Applicant will submit an application to the program identifying basic facility information such as, building type, square footage, and recently implemented ECMs, as well as, the reason(s) for requesting an energy audit;
- A case manager will assist the Applicant in determining the audit path that best addresses the Applicant's needs (as described below);

- Available energy audit paths include:
  - o ASHRAE Level I audit<sup>17</sup>;
  - o ASHRAE Level II audit; and
  - O Add-on scope audits as provided for in the Program Guide or application materials (e.g., a more detailed review of an existing or potential RE system, a deeper feasibility assessment for rooftop photovoltaic (PV) system, or certifying a building as having met ENERGY STAR requirements).<sup>18</sup>

Each level of audit would also include a high-level feasibility assessment for electric vehicle ("EV") charging stations.

- When an Applicant is enrolled in LGEA and participating in any NJCEP and/or utility-managed energy efficiency programs at the same time for the same facility(ies), the Program Manager will assess the impact the work may have on the energy audit and require the Applicant take one of the following actions within a determined timeframe, depending on the level of impact:
  - o Proceed with energy audit and equipment upgrades (minimal impact);
  - Complete equipment upgrades prior to proceeding with energy audit process or vice versa (moderate impact); or
  - o Cancel energy audit application (significant impact).
- If the initial program eligibility and application requirements have been met and the Applicant is approved to have an energy audit performed under this program, the Program Manager will issue an Approval Letter/Notice to Proceed to the Applicant.
- The scopes of work of the energy audit paths are consistent with Section 3.8.1 of RFP 16-X-23938, dated April 21, 2015, and the related Technical Proposal and Contract (#A40225).

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<u>Level I</u> – Walk-through Assessment – Assess a building's energy cost and efficiency by analyzing energy bills and conducting a brief survey of the building. A Level I energy analysis will identify and provide a savings and cost analysis of low-cost/no-cost measures. It will also provide a listing of potential capital improvements that merit further consideration, along with an initial judgment of potential costs and savings.

<u>Level II</u> – Energy Survey and Analysis – This includes a more detailed building survey and energy analysis. A breakdown of energy use within the building is provided. A Level II energy analysis identifies and provides the savings and cost analysis of all practical measures that meet the owner's constraints and economic criteria, along with a discussion of any effect on operation and maintenance procedures. It also provides a listing of potential capital-intensive improvements that require more thorough data collections and analysis, along with an initial judgment of potential costs and savings. This level of analysis will be adequate for most buildings and measures.

<u>Level III</u> – Detailed Analysis of Capital-Intensive Modifications – This level of analysis focuses on potential capital-intensive projects identified during Level II and involves more detailed field data gathering and engineering analysis. It provides detailed project cost and savings information with a high level of confidence sufficient for major capital investment decisions.

<sup>&</sup>lt;sup>17</sup> From the ASHRAE Handbook:

<sup>&</sup>lt;sup>18</sup> For the avoidance of doubt, the add-on scope audits must be added on to a standard eligible audit and cannot be a standalone study.

- In order to provide compatibility with the ESIP, the energy audit scope will include an evaluation of energy related water conservation measures, demand response potential, and estimated greenhouse gas reduction for each recommended measure.
- After verifying all program requirements have been met, the Program Manager will perform the audit, prepare an audit report, and notify the Applicant when the audit report is completed. Additionally, the Program Manager may meet in person or conduct a web/phone conference with the Applicant to discuss audit findings and next steps for implementing measures recommended in the report.

The LGEA will provide audits up to a value of \$150,000 per fiscal year, per Applicant.

- In applying the foregoing cap to state entities, LGEA will treat each State Agency and Department as a separate entity, but subject the group of State Departments (defined as all those entities using Tax ID: 21-6000928) to an overall cap of \$450,000 per fiscal year.
- For larger Applicants interested in pursuing ESIP (by selecting intent to pursue ESIP on the application), if the audit cost exceeds or is expected to exceed \$150,000, the Program Manager will work with the Board Staff to determine and authorize a larger cost cap, not to exceed \$300,000.
- For non-profit 501(c)(3) healthcare entities, the Program Manager will work with Board Staff to determine and authorize a larger cost cap, not to exceed \$300,000, so long as the funds exceeding the initial \$150,000 would be for auditing facilities designated as hospitals by the NJ Department of Health ("DOH").

Services offered under LGEA do not count towards the fiscal year incentive cap (see Appendix B: C&I and DER Incentives and General Rules).

# **Target Markets and Eligibility**

LGEA is open to the following eligible entities that contribute to the SBC through either their gas and/or electric utilities:

- "State contracting agency" as defined by N.J.S.A. 52:34-25;
- "Public agency" as defined by N.J.S.A. 52:35A-1;
- Local governments per Local Public Contracts Law (N.J.S.A. 40A:11-1);
- Local governments per Public School Contracts Law (N.J.S.A. 18A:18A-1);
- County colleges per County College Contracts Law (N.J.S.A. 18A:64A-25.1);
- NJ State Colleges or State Universities per State College Contracts Law (N.J.S.A. 18A:64-52); and
- Non-profit charitable organizations per Section 501(c)(3) of the Internal Revenue Code

Applicants may apply for an energy audit for buildings they own. A building may still be eligible if the Applicant leases the building and provides supporting documentation from the building owner authorizing the energy audit before it is performed.

Buildings must demonstrate an average demand of 200kW or greater in the most recent twelve (12) months of electric utility bills (inclusive of all accounts in the building) in order to qualify to participate in LGEA. The Program Manager will have the ability to grant exceptions to the kW requirement, on a per building basis, if the Applicant can demonstrate it meets at least one of the following criteria:

- 1. ESIP is an anticipated source of funding;
- 2. Master or campus metering arrangement on-site where demand of any single building is unknown; or
- 3. The unavailability or of inapplicability of other NJCEP or utility-sponsored energy efficiency programs at this time due to facility type or measure type.

For #2 and #3 above, the Applicant must provide a detailed explanation as to how it meets the criteria for the claimed exception.

LGEA is available to buildings never previously audited under the Program, as well as, buildings that have received an audit no less than three years earlier (measured from the audit report approval date). All program requirements must be met in order for an entity to qualify for a second energy audit.

# **New Construction Energy Efficiency Program**

#### **New Construction**

The NJCEP legacy New Construction programs, as offered in FY22, consist of different programs for each market segment, including residential and C&I. However, many buildings could cross over or fall between these defined segments and include, for example, both residential and commercial components. This creates some confusion in the marketplace and barriers to participation, especially for multipurpose buildings, sometimes requiring builders to apply to multiple programs for different components of the buildings. To avoid the foregoing, and to otherwise upgrade and improve NJCEP's support for new construction, a redesigned New Construction ("NC") Program would be developed, with input from stakeholders and the public, and presented to the Board. Board Staff anticipates the redesigned NC Program would, subject to Board approval, launch in FY 23. The redesigned program would essentially replace and improve the RNC, C&I NC (SmartStart), P4P NC, and CTEEP NC Programs. The FY22 programs being replaced would continue to run unchanged until they transition out of existence into the NC Program.

The new NC Program is expected to, among other things:

- Include a Single Point of Entry Implement a new streamlined program for all new construction buildings (including commercial, multifamily and residential) that, among other things, would eliminate potentially confusing overlaps in the multifamily market and eliminate the need for multiple applications for mixed-use buildings.
- Optimize Program Process Flow Gain efficiencies and streamline the administrative process by having one entity manage the entire NC portfolio of projects. Improve and standardize methods used to review submitted materials more quickly. Incorporate additional national standards as proxies to simplify program participation, increase participation, support newer and more robust strategies, and advance the market toward electrification.
- Increase Depth of Scope Introduce Passive House standards. Eliminate single-measure incentives and instead bundle them to drive deeper savings. Develop advanced bundled packages such as smart connections, electric/EV ready, intelligent load controls, solar+storage solutions. Introduce an easy to understand and participate in electrification option and educate residents and builders on electrification methods and best practices. Encourage participation with other available NJCEP offerings, such as community solar.
- Include three Pathways to participation, as follows:
  - o Bundled Pathway, in which participants would select from bundles of prescriptive measures.
  - Streamlined Pathway, in which participants would use simplified wholebuilding modeling for standard buildings.
  - o High Performance Pathway, in which participants would use whole building ASHRAE modeling or would participate in identified national programs (e.g.,

LEED, ENERGY STAR) that can serve as a proxy for NJCEP-specific standards.

# **Distributed Energy Resources**

#### Overview

NJCEP promotes several categories of Distributed Energy Resources ("DER") to assist in increasing market activities that will increase overall combined electricity delivery system efficiency, reduce overall system peak demand, further the use of emerging and renewable technologies, reduce emissions, and provide cost-effective reliability solutions for New Jersey while supporting the State's EMP.

#### Combined Heat and Power - Fuel Cell

## **Program Purpose, Strategy, and Description**

This NJCEP Combined Heat and Power – Fuel Cell ("CHP-FC") Program offers incentives for Combined Heat and Power and Fuel Cell projects.

For the purposes of this program, Combined Heat and Power is defined as follows:

• Combined heat and power ("CHP"), also known as cogeneration, is the production of electricity and useful thermal energy from a single source fuel. Useful thermal energy means energy in the form of direct heat, steam, hot water, or other thermal form that is used for heating, cooling, humidity control, process use, or other valid thermal end-use energy requirements, and for which fuel or electricity would otherwise be consumed. Bio-power and partial bio-power projects that meet these criteria are considered to be CHP projects for Program purposes.

Waste Heat to Power ("WHP") projects that comply with the following definition are treated as CHP projects by the program:

• Waste heat to power is the process of capturing waste heat discharged as a byproduct of an industrial process and using that heat to generate power. In this configuration, a source fuel is first used to provide thermal energy to meet load requirements of a process or system (i.e. not deliberately creating excess thermal energy for the purpose of electricity generation). The byproduct of this process is heat that would otherwise be wasted to the atmosphere. The waste heat is then repurposed to produce electricity, as opposed to, directly consuming additional fuel for this purpose.

Projects meeting the definitions of either CHP or WHP above are collectively referred to as CHP projects in the remainder of this Compliance Filing.

For the purposes of this program, fuel cells are not considered to be WHP or CHP.

For the purposes of this program, fuel cell ("FC") is defined as follows:

• Power plants that produce electricity through an electrochemical reaction with a fuel source.

FCs are further broken down between " $\geq$  60% FCs" that can achieve an annual system efficiency of  $\geq$  60% (Higher Heating Value – HHV), based on total energy input and total utilized energy output (Efficiency) and " $\geq$  40% FCs" that can achieve an Efficiency  $\geq$  40% < 60%.

CHPs and FCs are all eligible for incentives through this program as set forth in more detail below.

## Support for EMP Goals and Strategies

This program will support many of the EMP's strategies and goals, including, among others, the following:

- Primary Goal 3.1 (Increase New Jersey's overall energy efficiency).
- Primary Goal 2.1 (100% clean power by 2050), especially its Goal 2.1.6 (Develop mechanisms to compensate distributed energy resources for their full value stack at the regional and federal level).

## **Target Market and Eligibility**

This CHP-FC Program is open to all New Jersey C&I utility customers paying into the SBC. Applications are reviewed and funds are committed on a first come, first serve basis provided all program requirements are met. CHP-FC systems that receive funding from the Energy Resiliency Bank will not be eligible for incentives through NJCEP.

# **Equipment Eligibility**

Natural gas, hydrogen, biogas, and mixed fuel (e.g. natural gas and biogas) CHP-FC equipment, as well as, FC equipment using any fuel that is installed on the customer side of the utility meter is eligible for incentives. One hundred percent renewable fueled projects, including biogas and landfill gas-fueled projects that meet CHP-FC Program criteria, are also eligible to receive incentives.

To qualify for incentives, CHP and FC projects must meet all the following eligibility criteria:

- Equipment must be new, commercially available, and permanently installed. Expansion of an existing system with new equipment is also eligible. However, only the incremental expansion would be eligible for incentives;
- Systems must operate a minimum of 5,000 full load equivalent hours per year (i.e. run at least 5,000 hours per year at full rated KW output). Board Staff may grant exceptions to the minimum operating hours requirement for Critical Facilities (as identified in the CHP Incentives section of this Compliance Filing), provided the proposed system operates a minimum of 3,500 full load equivalent hours per year and has islanding capability;
- All projects are subject to ten (10) year warranty requirements with the exception of public entities. Public entities that are prohibited from entering into agreements for the full ten (10) years may comply with the 10-year requirement by: (a) providing an agreement for the longest lawful term; (b) committing the entity to purchase an agreement for the remaining years; and (c) either (i) providing the vendor's commitment for specific pricing for those remaining years, or (ii) assuming the pricing for the remaining years will increase by 2.5% each year (e.g., for the purpose of calculating a payback period);
- Each project must pass a project-level cost-effectiveness analysis demonstrating the simple project payback period, including any federal tax benefits and the Program incentive. Systems installed in Critical Facilities must not exceed a payback period of twenty (20) years, systems fueled by a Class 1 renewable source must not exceed a payback period of

- twenty-five (25) years, and all other systems must not exceed a payback period of ten (10) years;
- All project submissions must contain specific cost data for providing the unit with blackstart/islanding capability regardless of whether the project will have that capability;
- System must be sized to meet all or a portion of the customer's on-site load not to exceed 100% of the most recent historical annual consumption or peak demand. For all projects, any surplus power that may become available during the course of a given year may be sold to PJM. Any system fueled by a Class 1 renewable source is exempted from this program requirement provided the system is sized to match the Class 1 renewable fuel produced on-site; and
- Installations of multiple systems planned for the same site within a twelve (12) month period must be combined into a single project.

To qualify for incentives, CHP projects must also meet all the following eligibility criteria:

- The CHP system must achieve an annual system efficiency of at least 60% (Higher Heating Value HHV) based on total energy input and total utilized energy output. Mechanical energy may be included in the efficiency evaluation; and
- Waste heat utilization systems or other mechanical recovery systems are required for CHP projects. New electric generation equipment which captures waste heat or energy from existing systems is also allowed.

To qualify for incentives, FC projects must also meet the following eligibility criteria:

• FC systems must achieve an annual electric system efficiency of at least 40% (HHV) based on Net Useful Electric Power plus Net Useful Thermal Production (if any) divided by the Total Fuel Input at HHV.

Third party ownership (or leased equipment), such as procured under Power Purchase Agreements, is permitted within the program with the following provisions:

- In order to ensure the equipment remains on site and operational for the term of the agreement, a binding agreement is required between the parties. A copy of this agreement shall be provided to the Program Manager prior to commitment of incentives. The agreement should state that the equipment could be transferred to new owners should the property be sold or otherwise have a buyout provision such that the equipment remains on site and stays in operation. Only permanently installed equipment is eligible for incentives and must be physically demonstrable upon inspection prior to receiving an incentive. This can be demonstrated by electrical, thermal, and fuel connections in accordance with industry practices for permanently installed equipment and be secured to a permanent surface (e.g. foundation). Any indication of portability, including but not limited to, temporary structures, quick disconnects, unsecured equipment, wheels, carrying handles, dolly, trailer, or platform will deem the system ineligible;
- The customer/applicant will be allowed to sign over the incentive to the third-party owner. A valid project cost shall be demonstrated as part of the application in order to establish an appropriate incentive level; and
- All other program rules apply.

# Not Eligible for CHP-FC Incentives

The following types of generating systems/equipment are not eligible for this CHP-FC Program:

- Used, refurbished, temporary, pilot, demonstration or portable equipment/systems;
- Back-Up Generators (systems intended for emergency or back-up generation purposes); and
- Any system/equipment that uses diesel fuel, other types of oil, or coal for continuous operation.

## Manufacturer Diversity Caps for ≥ 40% FCs

During FY22, that is, from July 1, 2021 through June 30, 2022, new incentive commitments for  $\geq$  40% FCs are capped at \$4,500,000, and new incentive commitments for projects primarily involving equipment from any single  $\geq$  40% FC manufacturer are capped at \$1,500,000. By way of example, if during FY22 applicants A, B, and C have each been issued a \$500,000 commitment for  $\geq$  40% FC projects using equipment primarily supplied by manufacturer D, no further commitments would be issued during FY22 for  $\geq$  40% FC projects using manufacturer D's equipment.

Board Staff may approve exceptions to the above caps on a case-by-case basis if it determines that doing so is necessary to ensure full use of the current FY's FC and/or CHP-FC budgets.

#### **Incentives**

Incentives vary based on CHP-FC technology, fuel source, type, the presence or absence of heat recovery, project size, and total project cost. Details on qualifying technologies and available incentives can be found Table 35.

Applicants will not be allowed to receive incentives for the installed generation equipment from other available SBC-funded programs or from the Energy Resilience Bank. CHP-FC projects will be evaluated on a per site basis and incentives awarded accordingly. Installations of multiple systems planned for the same site within a 12-month period must be combined into a single project. For the avoidance of doubt, if at any time prior to system installation and operation a project is cancelled or abandoned, the incentive funds paid to date must be promptly returned to NJCEP.

# **Quality Control Provisions**

Quality control provisions are designed to ensure that systems that receive incentives are operating as expected and providing the desired benefits to the State. All applications received are reviewed to confirm compliance with eligibility requirements. Applicant eligibility information is verified, along with all technical information in support of energy efficient measure qualification and incentive calculation. Applicant supplied information and Program Administrator performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence.

TRC will utilize the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

# Renewable Energy

# Solar Registration

## **Program Purpose and Strategy Overview**

New Jersey's solar policies and Renewable Portfolio Standards ("RPS") have been established through legislation and implemented mainly through regulations and Board Orders. NJCEP's Solar Renewable Energy Certificate ("SREC") Registration Program ("SRP") was designed to meet the goals and objectives of the regulations in place at the time of its design. In 2020, the Board proposed and adopted regulations establishing a solar Transition Incentive ("TI") Program to provide a bridge between the legacy SRP and the then soon to be established Successor Program. In 2021, the Board proposed and adopted additional regulations establishing the Successor Solar Incentive ("SuSI") Program. The SuSI Program is comprised of two sub programs: 1) the Administratively Determined Incentive ("ADI") Program; and 2) the Competitive Solar Incentive ("CSI") Program.

#### Support for EMP Goals and Strategies

The Solar Programs support many of the EMP's strategies and goals, including, among others, the following:

- Primary Goal 2.1 (100% clean power by 2050), especially its Goal 2.1.1 (Meet the 50% Renewable Portfolio Standard by 2030 and explore possible regulatory structures to enable New Jersey to transition to 100% clean energy by 2050), Goal 2.1.2 (Ensure at least 75% of electricity demand is met by carbon-free renewable generation by 2050 and set interim targets, and Goal 2.1.3 (Routinely model scenarios and pathways to achieve 100% clean energy generation by 2050 with consideration for least-cost options).
- Primary Goal 2.3 (Maximize local (on-site or remotely-sited) solar development and distributed energy resources by 2050), especially its Goal 2.3.2 (Transition to a successor solar incentive program), which has been achieved.

# **Program Description**

The Solar Registration Programs ("Solar Programs") provide registration for RECs for solar projects, including behind-the-meter, community solar, and direct grid-supply projects connected to the New Jersey electric distribution system. The Generation Attribute Tracking System ("GATS") operated by PJM Environmental Information Services is used for the tracking and trading of RECs.

Pursuant to the Board's regulations, each megawatt hour ("MWh") of solar generation generates one solar renewable energy certificate ("REC"), which REC represents the clean energy benefits related to the MWh. For the SREC Registration Program, the RECs are called "SRECs" and are tradable in an open market; for the TI Program, they are called Transitional RECs ("TRECs"), and can be sold to a utility at a fixed price set by the Board; and, for the SuSI Program, they called "SREC IIs" and can be sold to a utility at a fixed price set by the Board in a declining block structure.

The Solar Registration Program team processes registrations and certifies solar projects as eligible for each of the three programs noted above. In FY23 the SRP team will continue to process SREC and TI registrations submitted before those programs closed to new registrations and it will process any new registrations submitted for the SuSI Program.

#### FY23 Program Changes

The Solar Programs will be modified as required to remain consistent with any revisions to the programs approved by the Board, including the adoption of any specific requirements related to the CSI component of the SuSI Program, which requirements are expected to be approved by the Board in the near term.

## Planned Program Implementation Activities

The Solar Programs will have the following areas of focus:

- Sustain the growth of New Jersey's solar markets, while communicating accurate and objective information on market development activity.
- Monitor legislative and policy developments, inform the market of key outstanding
  questions and decisions (e.g., new RPS levels, net metering rules), and translate new
  policies into program operational procedures, as required.
- Work with the Board and its staff to consider, develop, and implement possible programmatic changes, including those described below and otherwise implementing the Act.

# **Target Markets and Eligibility**

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

# **Offerings and Customer Incentives**

The Solar Programs provide a means for solar electric generation facilities to access a market where their RECs can be sold or traded. Solar generating facilities that are interconnected with the electric distribution system in New Jersey and that meet all applicable rule requirements, as well as all program requirements will be eligible to generate RECs upon successful completion of all requirements. The regulations governing RECs can be found at N.J.A.C. 14:8-2, 14:8-10, and 14:8-11. The program rules will continue to conform to these regulations.

#### In addition:

- A web based solar portal will be used for submitting registrations; and
- The Program Manager will prepare monthly reports identifying program results and trends including tracking capacity blocks for the SuSI Program.

# **Quality Control / Quality Assurance Provisions**

All renewable energy systems facilitated through the SRP must be installed in accordance with program equipment requirements, program performance requirements, manufacturer specifications, and provisions of the National Electrical Code ("NEC"). The installer is also required to meet Solar Programs contractor license requirements.

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

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

On-site verifications will be conducted for a pre-determined percentage of projects for residential and add-on systems that add additional capacity to a previously installed solar systems. An on-site verification will be performed for all grid-supply projects, behind the meter projects with a capacity greater than 500 kW, and community solar projects. The Program Manager may also conduct on-site verifications upon written request from the Board Staff or PJM-GATS to verify the cause for high meter reads or system production reading anomalies and submit written explanation of the findings to the Board Staff and PJM-GATS.

A pre-determined percentage of the projects that receive an inspection waiver will be randomly selected for a more in-depth paperwork review. The Program Manager reserves the right to request additional information, including, PV watts, shading analysis, photos, etc.

TRC will utilize the Contractor Remediation Procedures, as necessary or appropriate, to address significant performance or other problems.

# **Outreach, Website and Other - Outreach Plan**

#### **Outreach Plan**

# **Executive Summary**

This Outreach Plan ("Plan") highlights the strategies and tactics that the TRC Outreach Team will use to raise awareness of new and existing NJCEP energy efficiency programs, educate potential program applicants, contractors, and stakeholders.

This plan is in support of the State's EMP and specifically, the following energy efficiency programs remaining under the NJCEP after the transition of certain energy efficiency programs to the utility companies:

- Local Government Energy Audit Program
- Large Energy Users Program
- New Construction Program
- Combined Heat & Power and Fuel Cells

Additionally, this plan outlines our continued support for the federally funded School and Small Business Energy Efficiency Stimulus Program and for community outreach.

New tactics for FY23 support the priorities and focus areas of BPU and include:

- Expanded community outreach to underserved communities as well as women- and minority-owned businesses through the promotion of the School and Small Business Stimulus Program;
- Support for the launch of the New Construction Program through education for Trade Allies and program partners; and
- Spanish translation of new program collateral with the option of other languages.

After gauging the market's interest and measuring success in FY22, improvements have been made to the existing outreach tactics to focus more deeply on specific NJCEP programs. The Outreach Team will continuously monitor success and adjust tactics and actions, as needed.

Continued use of the Community Outreach Account Managers will allow the Outreach Team to understand the concerns and challenges of underserved communities through equitable relationship building in targeted communities. This support integrates with the other new tactics and goals of expanded community outreach to spread clean energy program education within underserved communities.

# **Background**

During FY22, the Outreach Team completed a fiscal year in a mostly remote environment due to COVID-19 while continuing to support the programs and engage with stakeholders across the entire state of New Jersey. The strategies had a positive impact on applications submitted, presentations given, energy savings, trade ally recruitment, BPU participation, and audit program

participation. This FY23 Outreach Plan incorporates lessons learned from past years to focus on tactics that increase engagement and energy savings over FY22.

## Support for EMP Goals and Strategies

The Outreach Plan supports many of the EMP's strategies and goals, as set forth in more detail below under Outreach Goals.

## **FY22 Highlights:**

#### Program Performance

- Outreach activities took place in all 21 counties of New Jersey in FY22.
- Outreach-generated program applications totaled 5,874, surpassing the annual goal by January 2022. These included SmartStart, HVAC, and Residential Appliance applications that had a fixed time period from installation to submit an application.
- Trade ally training and program overview presentations were recorded and made available on the Clean Energy Learning Center website.

## **Equity**

- Supported environmental justice through dedicated and target select efforts to Overburdened Communities ("OBC") as defined by NJ's Department of Environmental Protection.
- Expanded outreach in the first quarter to assess local needs in OBCs by partnering with town councils, environmental commissions, housing authorities, community based organizations, and faith based organizations.
- Expanded outreach from the second quarter onward to OBC K-12 schools, women- and minority-owned small business owners, business development organizations in OBCs, and minority chambers of commerce in New Jersey. Provided them with information about NJCEP and the newly launched federally funded School and Small Business Energy Efficiency Stimulus Program.



- Small Business Stimulus Program

The GIS map shows outreach efforts made to target schools in addition to women- and minority-owned businesses within the Overburdened Communities of Essex and Hudson counties about the newly-launched Schools and Small Business Stimulus Grant Program.

- Supported the launch of the School and Small Business Stimulus Energy Efficiency Program mid-year by assisting in website content and design, collateral development in English and Spanish, slide creation, communication toolkits, and outreach activities.
- Expanded Spanish-speaking, community-focused outreach to include translated collateral, providing Spanish-speaking representatives at events, and providing customer/contractor support in Spanish. Outreach also created new relationships with the Essex County Latino-American Chamber of Commerce and the Hispanic Association of Atlantic County, and continued relationships with Hispanic organizations including a membership with the Statewide Hispanic Chamber of Commerce of New Jersey.
- Targeted minority organizations for further program awareness by conducting presentations, attending events, and providing program information for newsletter inclusion.

## **BPU** Support

- Supported BPU-led initiatives through presentation content, providing leads for events to attend and facilitating speaking requests to the BPU.
- Served on the EE Transition Marketing Working Group that planned and developed messaging for the program transition. Work included updates to the Transition Landing Page images, frequently asked questions, webpage banners, presentation slides, and content for the EE Stakeholder Committee Meetings.
- Created a collaboration matrix for coordinating municipal outreach with Sustainable Jersey and the BPU.

#### Adaptable Market Strategies

- Provided presentations specific to careers in energy efficiency to college students and educators at Rutgers University.
- Developed content for NJCEP/BPU social media feeds.
- Completed monthly updates to the GIS tool which maps NJCEP-approved projects.
- Planned and delivered targeted educational webinars during the COVID-19 pandemic that addressed varying topics supporting trade ally development and customer awareness.
- Setup key relationships with key organizations that are influential to new construction including Passive House and having a seat on the board at NJ Statewide American Institute of Architect.
- Updated the NJCEP presentation template and slides with portfolio updates, program updates, and streamlined the end user message.
- Shared program metrics and key municipal contacts with the Marketing Team to assist them track program metrics and develop a Municipal Toolkit with case studies.
- Continued to adapt to working during the COVID-19 pandemic by assisting with program messaging, and by adapting the Outreach Team to reach the target markets virtually through webinars, targeted e-blasts, and in-person events. Both in-person and virtual booths were designed and staffed at large conferences.





TRC coordinated and attended a virtual booth for the New Jersey School Boards Association's annual conference. The conference was virtual due to COVID-19 precautions.

#### **Outreach Goals**

The Outreach Team supports the goals of NJCEP, as well as those of BPU and the Administration, including:

• Support the Administration's goal of 100% clean energy by 2050 – Since the release of the 2019 New Jersey EMP, the Outreach Team's support of the Plan's strategies continues to play a crucial role in reducing our reliance on fossil fuels.

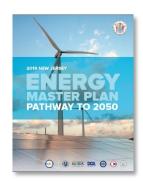


Table 3: EMP Strategies versus Outreach Tactics

EN	MP Strategy	Outreach Tactics
1.	Reduce Energy Consumption and Emissions from the Transportation Sector	
2.	Accelerate Deployment of Renewable Energy and Distributed Energy Resources	
3.	Maximize Energy Efficiency and Conservation and Reduce Peak Demand	
4.	Reduce Energy Consumption and Emissions from the Building Sector	
5.	Decarbonize and Modernize New Jersey's Energy System	
6.	Support Community Energy Planning and Action with an Emphasis on Encouraging and Supporting Participation by Low and Moderate Income and Environmental Justice Communities	Ш
7.	Expand the Clean Energy Innovation Economy	
	·	

- **Promote programs to customers, contractors, and trade allies** Represent the Clean Energy Program in the marketplace for all programs and program enhancements. We will work across all target markets to ensure they have the necessary information and training to fully engage in the programs.
- Support Environmental Justice to Overburdened Communities and customers Work with BPU, other state agencies, and community organizations towards ensuring all customers have an equitable opportunity to learn about and use the programs.
- Support the Marketing Team's promotional efforts Collaborate with BPU and the Marketing Team to deliver consistent marketing messages and themes. Program information will be shared as requested to highlight successes around program opportunities, successes, and events.
- Collaborate with BPU to reach specific sectors and customers Jointly develop outreach strategies for specific sectors to leverage contacts and expertise.

The tactics outlined in this plan support these goals. The Key Performance Indicators ("KPI") listed below and others will be included in monthly reports to track progress toward these goals.

# **Target Markets**

NJCEP programs are available to New Jersey customers of any Investor-Owned Utility. Outreach efforts address a vast audience across multiple markets including residential, business, local government, and nonprofit entities. The tactics described within this plan address these target markets to increase the reach and success of NJCEP programs.

Table 4: Market Category Definitions

<b>Market Category</b>		Definition		
Q	Customer	Customer Homeowners, Property Owners/Managers, Renters, Businesses, NPOs, State, County & Municipal Government Entities, Schools		
	Contractor	HVAC & Insulation Contractors, Plumbers, Remodelers, Electricians, Program Contractors		
	Trade Ally	Builders, Developers, Architects, HERS Raters, Consultants, ESCOs, Engineers, Realtors, Manufacturers, Distributers, Retailers, Certification Technicians		
	Stakeholder	Community Organizations, Membership Organizations, Green Teams, State Agencies, Chambers of Commerce, Business and Economic Development Associations		
	Partner	Marketsmith, Sustainable Jersey, NJ Institute of Technology, GreenFaith, County Improvement Authorities, Utilities (Atlantic City Electric, Elizabethtown Gas, Jersey Central Power & Light, Public Service Electric & Gas, New Jersey Natural Gas, Rockland Electric, South Jersey Gas, Environmental Protection Agency, Department of Energy, United States Department of Agriculture – New Jersey, New Jersey Department of Environmental Protection, New Jersey Business Action Center, ENERGY STAR, United States Green Building Council		



The New Jersey League of Municipalities' annual conference was the first in-person conference attended by TRC post-COVID restrictions.

#### **Outreach Tactics**

Tactics are how we achieve our goals. They are specific steps and actions taken to support the outreach strategy and give structure to day-to-day activities. Most tactics employed in FY23 address the strategies of the EMP along with the Clean Energy Program portfolio at large. Some tactics are unique to markets and/or sectors as outlined below. The Outreach Team has two primary focuses: Community Outreach and Program Outreach.

# Equitable Community-Specific Outreach



Ensuring equitable access to and awareness of the programs offered by NJCEP is a cornerstone of outreach. The Community Outreach Account Manager team will continue to broaden equitable outreach to

women- and minority-owned small businesses that started mid-FY22 in support of the School and Small Business Stimulus Program. In FY23, the Outreach Team will continue to segment into two different focuses: Program Outreach and Community Outreach.

#### School and Small Business Stimulus Program

staffing or capacity to use the program.

In FY23, through a two-pronged approach, outreach will work toward metric goals for Trade Ally Recruitment

and general program awareness of the School and Small Business Stimulus Program.

**Community Outreach** 

- Target women- and minority owned small businesses

- SSBS specific awareness

Coordinate with minority chambers, associations, improvement authorities, and green teams

Represent NJCEP at small business and minority events

**Program Outreach** 

Target NJCEP programs

Program specific awareness

Coordinate contractors, architects, facility managers and key project decision makers

Represent NJCEP at contractor and specific organization events

General awareness that the program is available and where to go to find a trade ally for the next steps of program participation is important, especially to women- and minority-owned businesses. The team will continue to use the targeted list of qualified underserved areas for the School and Small Business Stimulus Program, state registry of women- and minority- owned businesses, collaboration with the Division of Clean Energy's Office of Clean Energy Equity, and partners such as the Marketing Team and Sustainable Jersey for jointly targeted campaigns. Community Account Managers will expand messaging, materials, and strategies to engage with women- and minority-owned small businesses in New Jersey to bring projects into the new federally funded program. Identified markets to promote the program and recruit customers will include professional organizations, outreach partners, trade allies, and customers. The community team will conduct the following tactics in collaboration with BPU efforts to promote market awareness:

Trade Allies are key to assist program outreach and be the point person to guide customers through the program. The team will seek a deeper focus on Trade Ally recruitment to help customers access this program. This approach will help bring trade allies to customers that may not have the

- 1. Trade ally engagement and recruitment;
- 2. Organizational partnerships;
- 3. Informational webinars and presentations;
- 4. Event attendance with the target market;
- 5. Direct outreach to eligible customers;

- 6. Media resources development: social media, radio interviews, newspapers, publications, newsletters; and
- 7. Select canvassing with partners such as Green Teams.

## Customized Program-Specific Outreach

While the Community Account Managers focus on the federally-funded School and Small Business Stimulus Program, Program Account Managers focus on outreach designed to bring projects into the programs offered in this filing. Each program has different target applicants, membership organizations, and other access points, so the outreach techniques will be customized for each of those project sectors. This design for FY23 allows the Program Account Managers to specialize in specific focus areas needed to assist participants in navigating the programs, understanding their opportunities for energy savings, and applying to the programs.

Outreach focuses on program awareness to existing and potential trade allies and customers to become their main point of contact for project inquiries. The Outreach Team then identifies the program path that is best fit for their projects and offers ongoing support as they re-engage in the program with additional projects.



We will continue our educational training series specific to each sector to educate potential participants about the benefits of participation and help identify the program path most-suited to each potential participant's needs and interests. We will represent the entire NJCEP portfolio at events and triage inquiries about BPU-led initiatives to the BPU. Utility run programs will be referenced as a standard part of the messaging for increased clean energy awareness.

#### New Construction Program: Engage Contractors & Trade Allies



In FY23, the residential and C&I new construction programs are expected to merge into a single streamlined New Construction Program. This unified program would change the way in which the Outreach Team will network and communicate about NJCEP offerings. The Outreach Team would create presentation slides, draft

collateral content, assist with the program website design, conduct trade ally and market education around the new program, assist trade allies in navigating the new program design, and spread program information to industry and partner organizations.

New construction contractors and trade allies have direct contact and influence with potential new construction customers. They are involved in all facets of a project, from design through construction. The Outreach Team maintains and cultivates relationships with these contractors by participating in professional organizations and soliciting program feedback. This approach serves to improve the customer experience and program quality. A goal is to minimize lost opportunities by making trade allies aware of program opportunities early in the design process.

The Account Manager would be the lead in educating the public about the new program design by leveraging relationships with key Trade Ally groups and partners that include builders/developers, contractors of new construction projects, stakeholders, facility managers, energy managers, and realtors. The Account Manager would provide program education to these target groups through collateral, social media content development, program overview presentations/webinars,

application training presentations/webinars, new construction educational webinars, staffing meetings, and events. The Account Managers would also provide to the trade allies within their assigned program focus an awareness of the other programs.

Some contractors and membership organizations span both the Residential and C&I market, such as the U.S. Green Buildings Council of NJ and the American Institute of Architects, while other contacts and organizations may focus on specific building or development types. One such sector that focuses on a development type is indoor agriculture, a sector with which we are actively engaged through our relationships with groups that include NJ Cannabis Insider, the Cannabis Regulatory Commission, and Rutgers Eco Complex. The new, unified New Construction program would allow the Outreach Team to have a more streamlined approach to partnering with these organizations, as well as a simplified process and message to their members.

Additional memberships and partnerships that will continue include but are not limited to:

- Associated Builders & Contractors;
- Commerce & Industry Association of New Jersey;
- Commercial Real Estate Development Association;
- New Jersey Alliance for Action;
- New Jersey Association of Energy Engineers;
- New Jersey Builders Association;
- Jersey Shore Builders;
- International Facility Management Association of New Jersey;
- Metropolitan Builders & Contractors Association of New Jersey;
- Society of Mechanical Engineers New Jersey; and
- Southern New Jersey Development Council.

The comprehensive contact list of new construction contractors and stakeholders is constantly being updated as the construction industry continues to expand. The list will be used to promulgate program information and invite key decision-makers to NJCEP-hosted events including webinars, presentations, and NJCEP booths at industry trade shows and conferences. The message will remain all-encompassing regarding NJCEP programs as there are other programs that are applicable to these contractors as well.

In FY23, it is crucial that outreach efforts are complemented with marketing efforts to transform the New Construction marketplace to spark consumer awareness and demand for highly energy efficient buildings, in addition to encouraging builders to build with bundles of high efficiency equipment or use one of the higher efficiency pathways by partnering programs with ENERGY STAR, LEED, Passive Home, or Zero Energy Ready Homes. The Outreach Team will work with the BPU to recommend complimentary marketing strategies or campaigns.

# Local Governments: Engage Counties, Municipalities, K-12 School Districts, and Higher Education

BPU programs available to local governments include the LGEA and new construction programs. LGEA is the most popular of the programs, as it is often the first step to entering into the other programs, including the BPU's Energy Savings Improvement Program (ESIP).

An Account Manager will specialize in ensuring that these entities are aware of the NJCEP programs through involvement in annual conferences, the creation of newsletter content for applicable organizations, and the development of continued trainings such as the one that the Outreach Team conducts for municipal staff through Rutgers University Continuing Education. Organizational involvement will continue with the Association of Counties, Conference of Mayors, School Buildings and Grounds Association, School Boards Association, and League of Municipalities. Equitable outreach for overburdened towns and authorities will be included during FY23.

## <u>Large Energy Users and CHP/FC: Targeted Contractors</u>

The outreach to expand the customers using the Large Energy User Program will be done in conjunction with the known contractors and Trade Allies who target these customers. Additionally, we will continue to maintain relationships with past program participants to ensure they remain engaged in the program as many applicants tend to re-apply each fiscal year.

The Combined Heat & Power and Fuel Cell (CHP/FC) program is expected to undergo program redesign in FY23. The Outreach Team will provide the program change information in webinars that address fiscal year changes and send an eblast to trade allies who have worked on past NJCEP CHP/FC projects.

#### Trade Ally Development

To streamline operations that support contractors and trade allies, a specialized Account Manager ("Trade Ally Manager") will engage the existing trade ally network and actively recruit new contractors, consultants, and other business entities that have an energy efficiency-focused business interest in NJ. During the past years, NJCEP data has shown that campaigns focused on recruiting new trade allies bring in the largest number of program applications. A trade-ally-focused approach is essential to recruit, maintain, and support a healthy trade ally network to promote the programs to their customers. The Trade Ally Manager is responsible for developing content for collateral and presentations that recruit, train, and support the trade allies. Account managers will continue to offer one on one project specific assistance to contractors as needed.



#### Recruit

In FY22, the Trade Ally Manager hosted monthly Trade Ally Engagement and Recruitment Webinars that averaged over 60 registrants and resulted in the recruitment of 23 new trade allies. Using a combination of historic program data, purchased lists, and public-facing data, a strategic recruitment initiative will take place in FY23 for the contractors and raters who have utilized and participated in the programs and those who are the leaders for New Jersey in new construction and small business. New metrics will track trade ally recruitment. Recruitment efforts will take place through calling campaigns, professional organization involvement, and round-table events. Program collateral will be available to give a general overview of NJCEP and success stories to highlight benefits to the end customer and contractor. New collateral specifically for trade ally recruitment will be created. Recruitment efforts will be planned in coordination with the Program Managers and other Account Managers to focus on programs that require additional contractor awareness and participation.

#### Train

A series of contractor and rater trainings will be developed to address various areas of interest, including benefits to the contractor and customer, program overview, and how to fill out the applications. Trainings will offer short and streamlined messaging that will be recorded and saved on the program website and Clean Energy Learning Center in the form of short vignettes for future reference. The Trade Ally Manager will create and deliver content for the training presentations. In FY22, the Trade Ally Manager coordinated several application training and program overview webinars that were posted to The Clean Energy Learning Center.



FY22 Trade Ally Survey

A monthly 30-minute webinar with a focus on program awareness and trade ally recruitment will be held that will go into the details of the programs and showcase success stories. The target audience will be new contractors being recruited as well as existing contractors and their application processing staff who may need a program refresher.

#### Support

The Trade Ally Manager offers ongoing support to the past and future program contractors and is responsible maintaining contact with the trade ally network to solicit input on needs, feedback on their experience with the programs, and input on potential program changes or enhancements. Ongoing support to the contractors by the Trade Ally Manager includes:

- Collateral content to support contractors in general program awareness and focused sector specific collateral where applicable;
- Success Story collaboration with Program Account Managers to ensure that a regular flow of new success stories is acquired for each program;
- **Monthly Newsletter** of all program changes, collateral links, training invitations, and upcoming networking events;
- Quarterly Contractor Coffee will be hosted by TRC to in a live person-to-person setting address questions the trade allies may have about the application process. Program staff will be on standby for detailed questions. As needed or appropriate, this will consider and address any current



Monthly Eblast Newsletter

- or appropriate, this will consider and address any current COVID-19 restrictions and protections;
- Quarterly Networking events where contractors can meet each other as well as program staff and form valuable partnerships in a structured networking format; and
- **Annual/Bi-Annual Survey** to solicit feedback that will further allow the Outreach Team and program design team to support the program participants.

# **Energy Efficiency Transition Support**

As of July 1, 2021, some programs previously run by NJCEP are now run by the Investor-Owned utility companies. The process of the change is referred to as the Energy Efficiency Transition.

During FY22, the Outreach Team supported transition-related education and messaging as needed and ensured that the website communications are in both English and Spanish. During FY23, the team will continue to provide some ongoing support around the transition.

## **BPU Support**

The Outreach Team will continue to support the BPU through the EE Marketing Working Group by coordinating new messaging and website updates. This will include content updates and maintenance of the Transition Landing Page and Frequently Asked Questions, all in both English and Spanish.

#### **Utility Coordination**

TRC will continue to attend the EE Marketing Meetings with utilities and BPU staff to participate in joint efforts around messaging and marketing. Ensuring that all messaging is clear and coordinated will continue to help ensure a seamless transition. In FY22, this included the coordination of "key utility implementor" contacts for sharing information about projects with the potential to participate in the utility-sponsored programs. This is the case, for example, when LGEA projects are at their final stage for School and Small Business Stimulus Projects are eligible to participate in utility programs.

## Expanded Outreach Education

A key Outreach tactic is the education of trade allies and underserved communities about the positive environmental and financial impacts of participating in NJCEP programs. Educational efforts start with research and collateral development. The Outreach Team will identify and secure speaking opportunities where we can reach larger audiences to present the programs. Additionally, the Outreach Team will continue to leverage and coordinate speaking or event engagements with BPU, utilities, Sustainable Jersey, GreenFaith, and other partners. These efforts lead to one-on-one assistance into the programs.

During FY23, we will assess community and partner needs and develop delivery timelines in collaboration with them. We will also evaluate the level of education needed for each audience and the need for sector specific collateral.

#### **Customized Collateral Development**



Customized, sector-specific collateral has become increasingly well received. In FY23, the Outreach Team will identify additional sectors that would benefit from customized collateral such as one-page summary sheets for design-build contractors, architects, and developers. The Outreach Team will use BPU's one-page template. All collateral will be reviewed by BPU staff.

Known collateral needs are listed below. These materials will provide basic information to generate interest and direct the reader to an Account Manager who can then provide personalized guidance.

- **New Construction:** An overview of the suite of new construction program offerings.
- Small Business Spotlight: An example of how women- and minority-owned small businesses work with NJCEP through several short case studies on the School and Small Business Stimulus Program.

• **Benefits of being a Trade Ally:** A recruitment-focused piece highlighting the benefits of being a NJCEP trade ally.

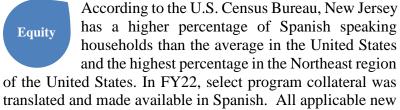
#### **Customized Training Series**

Whether it is a one-time training or a series of trainings, the Outreach Team will determine the educational needs of the audience. We will respond to such needs and continue to adapt our regular presentations to emphasise the current landscape of energy efficincy incentive programs and provide additional trainings for trade allies. We will offer a training series on the redesigned New Construction Program and the application process. Additionally, we will develop our current trade ally network and expand the number of trade allies and contractors who understand and participate in programs.

#### One-On-One Assistance

Successful outreach and education require regular follow-up and offers of assistance to ensure customers have what they need to understand the programs and allow projects to move ahead. Soliciting feedback from customers regarding their experience is also critical in allowing us to improve materials and programs, and to garner feedback on making the information finely tuned. As part of our trade ally coordination efforts, we will conduct regular surveys to the NJCEP trade ally network to gauge program performance and solicit feedback. One-on-one assistance will continue with contractors, local governments, and businesses to help promote all programs.

#### Multi-lingual Educational Outreach



translated and made available in Spanish. All applicable new and updated collateral for FY23 is planned to be made available in Spanish and English. Outreach pass-through funds have been set aside for professional translation services.

A Spanish-speaking Community Account Manager oversees the Spanish educational outreach. She works with the Community Team to address the Spanish language needs of participants. This service will continue to align with the FY23 program offerings and will be a key component of the Community Outreach to Spanish-speaking communities.



While Spanish is the main language spoken after English, the Outreach Team will also work with any community organizations that may request NJCEP collateral in other languages to offer translation services.

#### Support BPU-Led Initiatives

BPU and TRC each have primary responsibility for developing and delivering components of the NJCEP. The Outreach Team's role is to bridge the gap so customers can navigate the program options that are most applicable to them. To do so, the Outreach Team discusses with customers

their needs and ensures they are aware of the entire Clean Energy Program portfolio. The Outreach Team will continue to refine the NJCEP presentation in order that the infographic and presentation flow addresses the audience appropriately based on the audience's specific needs. The NJCEP portfolio overview infographic is used in most presentations to give an overview of the all programs available before diving into the discussion topic of the core presentation.

The Outreach Team stays up-to-date through BPU staff presentations of BPU-led initiatives. Outreach Team members are able to answer high level questions about all BPU initiatives and can direct specific inquiries to BPU staff, as needed. Many events that the Outreach Team already attends offer solid opportunities for the sharing information about BPU-led initiatives. Likeminded customers tend to have overlapping interests in sustainability. This is one reason it is important for the TRC and BPU-led initiatives to work together for consistent and comprehensive messaging.

The Outreach Team coordinates and processes the purchases and expenses related to printing all program collateral related to energy efficiency programs that TRC works on. The Outreach Team ensures there is a current stock with BPU and Outreach Team members, as well as at meetings and events, where applicable.

#### **BPU** Support and Coordination

The Outreach Team will work closely with BPU staff to align program messaging and event representation with priorities of the BPU. This includes regular status meetings to ensure BPU is aware of the outreach activities, events, and speaking opportunities identified for BPU staff and/or Commissioners.

#### **Support Commissioner Engagement**

The BPU Commissioners have expressed interest in continuing their involvement in the promotion of the programs, along with experiencing some of the interactions that take place between NJCEP participants and program staff. Commissioner participation supports the NJCEP, demonstrates program enthusiasm, and allows Commissioners to receive direct feedback from participants and stakeholders.

In FY22, we continued to identify speaking opportunities for BPU Commissioner participation and looked for opportunities for the Commissioners to engage with customers on a one-on-one basis. In FY22, the number of live events was limited due to COVID-19 restrictions.



As the state restarts in-person events, engagements will be flagged for Commissioners. These engagements may include stakeholder meetings, presentations to trade organizations, presentations to member organizations, panelist opportunities at trade shows, meetings with large energy users or key accounts, meetings with other state agencies, ribbon cutting ceremonies for completed projects, customer acknowledgments for milestones achieved, and LGEA audit and report presentation exit meetings.

In FY23, we will continue the "Commissioner Concierge" approach in which a team member is assigned to supply the Commissioners and their staffs with a seamless speaking engagement experience. This concierge approach supports Commissioner events from beginning to end. The assigned team member works with the Commissioners' staffs to ensure they are well prepared for their event. This involves supplying specific background details as defined by BPU speaking engagement templates, such as presentation type and length, event agenda, speaking time window, bulleted program data points, and post-event networking opportunities. The Outreach Team will also provide site support for the Commissioners and their staff. Additional support requirements will be defined as required.

#### Coordinate with BPU Staff

Coordination with the Division of Clean Energy and Ombudsman's Office is critical to ensure our messages are consistent, that we are not duplicating efforts, and that we are documenting both successes and opportunities for additional communication and outreach. We will coordinate with BPU staff to support and monitor cross-team outreach efforts to community organizations, local governments, and state agencies.

Regular reports, meetings, and calls will continue to address specific events and provide more indepth knowledge into program information. We will continue to share event calendars and presentation content.

Outreach staff will attend meetings, site visits, or events as requested by the BPU staff. The Outreach Team will provide the relevant program presentation and materials for the meeting, in addition to conducting any follow-up needed to assist the customer in using the programs.

#### Coordinate with Marketing Team

The Outreach Team will support the Marketing Team's marketing campaigns, both by responding to data information requests and by preparing program-specific plans. Collaboration will be critical as specific marketing plans are developed and implemented so that the Outreach Team can be prepared to support and provide the data needed.

The NJCEP branding and messaging that the Outreach Team uses will be consistent with the messaging of the Marketing Team. The program benefits most from synchronized Marketing Team and Outreach Team coordination to best target NJCEP programs and provide equitable awareness of the programs. The Outreach Team proposes having monthly meetings with the Marketing Team to understand their timelines and to prepare the program staff for the upcoming focuses and workload shifts.

## Create, Develop, and Maintain Partnerships

Maintaining partnerships is key to ensuring that the Outreach Team and Partners are aware of the other's initiatives and changes that occur. In FY23, we will continue to build upon our existing partnerships and pursue new partnerships that include Overburdened Communities, targeted community organizations, and new trade specific membership organizations.

#### Sustainable Jersey

Coordination with Sustainable Jersey will continue to support its participants who are interested in NJCEP and offer program guidance to their Energy Team. Our efforts will include:

- Working with the ten Regional Hubs that bring together the Green Team representatives from all the participating towns in that region to share information about the Clean Energy Programs and develop coordinated plans to implement actions and measure success;
- Co-presenting webinars about NJCEP;
- Participating in the Sustainable Jersey Energy Task Force Meetings to ensure the Outreach Team provides input regarding updates to Sustainable Jersey relating to NJCEP initiatives;
- Coordinating with Sustainable Jersey on the monthly conference calls about upcoming events, conferences, and inquiries it receives regarding NJCEP; and
- Training Sustainable Jersey's Environmental Defense Fund interns and Sustainable Jersey staff on the LGEA process, tips around LGEA outreach, and how to refer new construction and small business opportunities to NJCEP staff.

#### **County Improvement Authorities**

The roles of County Improvement Authorities vary from county to county depending on their enabling laws. They typically support business retention and attraction for their respective territories. Some may provide financing and tax incentives, and most work closely with their municipalities to support local growth initiatives. Improvement authorities also work closely with local chambers of commerce, rotary clubs, and business associations. They provide a platform to educate local government units and entities to programs that support their objectives. These organizations provided a valuable opportunity to promote the programs and helped to identify potential projects in recent years. Account Managers will continue to connect with improvement authorities to pro-actively seek opportunities to participate in meetings and events to create awareness of NJCEP offerings.

#### **Investor Owned Utilities**

Collaboration with the State's utilities is critical to providing customers with a clear and understandable path to undertaking energy efficiency projects and obtaining financial incentives. The Outreach Team will continue to build on those relationships and identify opportunities to copromote program offerings and provide customer assistance. We will continue to communicate program changes to utility contacts to ensure that they are aware of the changes and to create a direct channel for answering questions they or their customers may have. The Outreach Team will continue to work with utility representatives to understand their program offerings so Account Managers can guide potentially eligible projects to the programs that best fit the customers' needs and wants. Partnerships will be offered in FY23 to co-present with utilities to applicable audiences that benefit from understanding transition, the utility program offerings, the NJCEP offerings, or any combination of the foregoing. Such partnership might include, among other things, joint presentations with organizations where NJCEP has historically had an active presence or joint presentations at larger conferences.

#### Organizations, State, and Federal Agencies

We are currently active members in several organizations, such as:

- Association of Women Business Owners
- African American Chamber of Commerce of New Jersey
- American Institute of Architects New Jersey
- Housing and Community Development Network of New Jersey
- New Jersey Association of Counties

- New Jersey Association of School Business Officials
- New Jersey School Boards Association
- Property Owners Association of New Jersey
- Shore Builders Association of Central New Jersey
- Statewide Hispanic Chamber of Commerce
- U.S. Green Building Council
- Statewide Hispanic Chamber of Commerce
- Regional Chambers of Commerce (Greater Elizabeth Chamber of Commerce, Newark Regional Business Partnership, North Essex Chamber of Commerce, Somerset County Business Partnership Chamber of Commerce)

The Outreach Team will investigate membership and partnership opportunities such as the New Jersey State Chamber of Commerce and other community focused chambers. where we can leverage more speaking engagements and promotional options (e.g., newsletter articles, success stories). FY22 included involvement and memberships with several minority organizations that the Community Specialists will continue to maintain. State and federal relationships will be maintained as well, such as:

- U.S. Department of Agriculture Project coordination with NJ staff to incorporate their grant program with NJCEP offerings;
- NJ Business Action Center Project referrals to NJCEP and conduct joint presentations;
- Design Lights Consortium ("DLC") Active participation and applicable outreach or program committees that they offer; and
- New Jersey Institute of Technology Provide programmatic and educational content for the Clean Energy Learning Center.

## Prepare the Market for Program Enhancements

NJCEP programs are continually updated and enhanced, typically on an annual basis. The Outreach Team supports customers, contractors, trade allies, and other stakeholders through these changes.

FY23 program enhancements include the updates on programs within this filing and high level updates on other BPU-led programs. The related outreach effort will include:

- Development and delivery of training for contractors and customers;
- Development and delivery of informational webinars;
- Articles in newsletters:
- Presentations at conferences and trade shows:
- One-on-one customer engagement, including either in-person visits or virtual contact with, equipment manufacturers, contractors, builders, and architects;
- Website postings;
- E-mail blasts; and
- Updates to presentations and collateral materials.

The Outreach Team will coordinate with BPU staff as it develops these plans and tools.

## **Delivery**

#### The Team

The Outreach Team is comprised of an Outreach Manager, an Administrative Coordinator, Account Managers ("AMs"), and a Trade Ally Manager. This Team collaborates closely with BPU staff, and the market sectors identified above.



\* Not a single person but rather an FTE equivalent

#### Outreach Manager

The Outreach Manager works with the BPU and the members of the Outreach Team to accomplish the tactics of this plan and the priorities of the Division of Clean Energy. The Outreach Manager oversees open and effective communication between the Outreach Team and the BPU, as well as regular reporting on Key Performance Indicators and Outreach event follow-up.

#### Administrative Coordinator

The Administrative Coordinator plays a key, office-based role in supporting Account Managers and the Trade Ally Manager. The Administrative Coordinator is a key communicator among professional organizations, event coordinators, the Outreach Team, and the BPU. The coordinator manages event logistics, supplies literature and giveaways, maintains the calendars of events and approvals, and processes purchasing. Their role may require the coordinator to attend some events and presentations in support of Outreach Team activities.

#### Account Managers & Trade Ally Manager

Outreach Account Managers are the cornerstone of the Outreach Team. Account Managers tailor engagement to participant knowledge and expertise that are best suited for each unique project.

**Program Account Managers** work exclusively to ensure that contractors, trade allies, stakeholders, and partners are aware of NJCEP and are submitting applications to NJCEP. They focus on specific programs since each program has a different target applicant type. Most are working on new construction and have a regional presence across the state of New Jersey.

**Community Account Managers** (formerly known as "Community Organizers") shifted roles in the past year to focus on recruitment for the School and Small Business Stimulus Program. In this capacity, they focus customer recruitment on Overburdened Communities and women- and minority-certified small businesses. The focus in FY23 will continue with these target market groups as well as minority and small business professional organizations.

One of the Account Managers, specifically, the Trade Ally Manager, focuses on Trade Ally engagement. The targeted focus allows the Trade Ally Manager to specialize and have targeted relationships with professional organizations where the target applicant can receive the message about NJCEP. The Trade Ally Manager provides specialized educational training about the

programs, application training, and application support to the contractors and trade allies. The Trade Ally Manager is responsible for recruiting trade allies and customers that submit projects into the program pipeline.

# **Key Performance Indicators and Reporting**

#### **Key Performance Indicators**



The Outreach Team tracks the impacts of its efforts via key performance indicators ("KPIs"). The KPIs below are a sample of the metrics tracked and reported monthly. Monthly reports will be provided to BPU staff regarding progress toward goals, monthly planning, and other outreach activity. Additional details are provided in the

monthly reports that are sub-metrics of these KPIs, such as the number of people engaged at events and presentations and the number of LGEA applications attributed to Outreach. The Team will continue to work with BPU staff to refine these reports.

New in FY23 is the tracking of Trade Ally Recruitment for both the New Construction and the School and Small Business Programs. Sub-metrics will also include a break-out of new project opportunities created by the Outreach Team for the School and Small Business Program.

*Table 5: Outreach Key Performance Indicators (12 months)* 

Outreach	Annual Target
<b>Application Enrollments:</b> # of applications received attributed to outreach	365
<b>Activities:</b> One-on-one meetings with customers, contractors, trade allies, or stakeholders	1077
<b>Events:</b> Events such as conferences and trade shows attended promoting NJCEP or NJCEP hosted contractor events	98
<b>Presentations:</b> Presentations made at events (not included in the above events) or hosted by NJCEP	60
<b>Trade Ally Recruitment:</b> New trade allies registered with NJCEP to focus on the current portfolio of energy efficiency programs	65

Note 1: FY23 KPIs are based on FY22 performance and assume that the Outreach Team efforts will continue to be a hybrid a of virtual and in-person environment. Should work conditions change, KPIs may be adjusted.

#### Reporting

We use a variety of tools to help inform the BPU staff and Commissioners about outreach activities. Report formatting will be addressed to ensure that it meets their needs for FY23. The Monthly Progress Report is the primary reporting tool. It contains a dashboard overview of KPI metrics and progress towards the goals. It highlights themes, events, and purchases completed throughout the month, as well as joint planning initiatives and partner collaboration. Additional

reporting includes invoice back-up, a list of approved program projects, monthly call center summary, and updates made to the Office of the Ombudsman's GIS reporting system, described below.

#### **GIS Reporting**

A geographic information system ("GIS") reporting platform delivers monthly data regarding incoming projects. This enhanced GIS application tool provides regional visualization that is used for internal planning and included in NJCEP quarterly reporting to the BPU. Additional layers were added in FY22 including utility territories and Overburdened Communities at the request of the Office of the Ombudsman.

The platform is accessible to Account Managers and the BPU's Office of the Ombudsman via desktop or mobile applications. Additional layers may be added at the request of the Office of the Ombudsman to coordinate efforts between its office and the Outreach Team. Data is updated monthly to include Outreach campaigns, opportunities, and project submissions. Maps are used as an outreach management tool and can be produced for BPU staff to include in presentations.



The Outreach Team manages the Ombudsman's Office ArcGIS access to "layers" such as these shaded zones showing utility coverage and the red circles indicating NJCEP approved project data that has been filtered by the user using any number of data fields.

#### **Rider A: Website**

TRC will continue to host New Jersey's Clean Energy Program website.

A redesign of the website has been identified as a priority by the BPU. The Outreach Team looks forward to supporting those redesigning the site, and it will continue to provide feedback from interactions with trade allies and the public. An updated design will improve the user experience and facilitate customer and partner use the site by making it easier for them to find the most frequently used documents, submit applications, and identify new content. The new website will, through the use of website analytics, provide a better user experience and logical points of engagement along the customer's journey.

# Rider B: Outreach Pass-Through Budget

The Outreach Pass-through budget supports activities specifically related to implementing the Outreach tactics described in the Outreach Plan. All expenses are approved in advance by BPU staff. Examples of expenses that support Outreach may include:

- Booth space at a trade shows,
- Event registration costs,
- NJCEP promotional giveaways,
- Sponsorship at events and local chamber of commerce meetings,
- Advertisements at events where outreach staff will be attending,
- Printing of program collateral, and
- Translation services for program information/collateral.

# **Appendix A: Residential Incentives (including Enhancements)**

#### Residential New Construction

Table 6: Financial Incentives per Unit for ENERGY STAR Certified Homes, ENERGY STAR Multifamily New Construction, Zero Energy Ready Home, and Zero Energy Home + RE

	Single Home (i.e., 1 & 2 family)	Multi-Single (i.e., Townhouse)	Rater Incentive	Multifamily	MFHR
ENERGY STAR	\$1,000 + \$30/ MMBtu	\$500 + \$30/ MMBtu	N/A	\$500 + \$30/ MMBtu	\$500 + \$30/ MMBtu
ZERH	\$4,000 + \$30/ MMBtu	\$2,500 + \$30/ MMBtu	\$1,200 (single & multi- single only)	\$1,500 + \$30/ MMBtu	N/A
ZERH +RE	\$4,000 + \$30/MMBtu + \$2,000	\$2,500 + \$30/MMBtu + \$1,500	\$1,200 (single & multi- single only)	\$1,500 + \$30/MMBtu + \$750	N/A
UEZ/AH Bonus	+\$500 (add to any level above)	+\$500 (add to any level above)	N/A	N/A	N/A

Notes to the table immediately above:

- The above \$30/MMBTU is based on savings before any savings from Renewable Energy. MMBtu is the incremental annual MMBtu saved as compared to the calculated annual usage of the baseline, reference home defined by the applicable energy code, all as described in more detail in the RNC Incentives section of this Compliance Filing.
- This table is only for Dwelling Units and single-room occupancy (SRO) units. As relevant to this table, SROs are limited to buildings of less than five (5) units; buildings with five (5) or more SRO units may be eligible to participate in P4P or other C&I Programs
- New multifamily buildings having less than five (5) Dwelling Units are eligible for this RNC Program.

## Appendix B: C&I and DER Incentives and General Rules

#### **Extension Policies**

Many programs include deadlines for submittal of information. For example, some programs require the submittal of a final application within six months or one year from the date of the letter approving the initial application. NJCEP provides for extensions of deadlines provided certain conditions are met. Program Managers in general are authorized to approve first and, in some cases, second, extensions. Additional standards/guidelines for approving extensions and/or reinstatements are set out in the Compliance Filings and in the Guidelines established for each program. The Program Administrator, with the approval of Board staff, may approve up to two extensions, each of a length set by the PA with the approval of Board staff, beyond the extensions the Program Managers are authorized to approve.

#### C&I / DER Incentive Caps

Incentive caps have been established to ensure that there is equitable access to the C&I and DER programs for all qualifying customers. These caps have been established because of the potential scale of commercial/industrial projects, where a few extremely large projects could otherwise consume a significant share of the available budgets, leaving other customers unable to access project funding.

#### **Program / Project Incentive Caps**

Most C&I and DER programs set incentive caps on a program per FY and/or per project basis; those caps are described in the program descriptions and/or incentive descriptions in this Compliance Filing.

## **C&I / DER Entity/FY Incentive Caps**

The incentives provided by NJCEP to any single entity in any given FY shall be capped at a maximum of \$4,000,000 ("Entity/FY Cap"), in addition to the other incentive caps described above. Each Program's and/or Path's milestones for determining when incentives count towards a given FY's Entity/FY Cap are as follows:

- Application approval SmartStart NC, CTEEP NC, CHP-FC.
- Energy Reduction Plan / Proposed Energy Reduction Plan approval P4P NC.
- Final Energy Efficiency Plan approval LEUP.

Incentives under any NJCEP C&I and DER Programs, except LGEA, count toward the Entity/FY Cap. An FY is any 12-month period from July 1 – June 30. Once the Entity/FY Cap in a given FY has been reached, the earliest an entity may apply for subsequent incentive funding is July 1 of the next FY. For example, if an entity reaches its Entity/FY Cap on March 15, 2019, it must wait until at least July 1, 2019, the first day of the next FY, to apply.

## **Total Cost Incentive Cap**

In addition to the caps described above, no project shall receive incentives from one or more NJCEP programs and/or Board-approved utility programs in an amount that exceeds the total cost 19 of measures installed or performed.

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<sup>&</sup>lt;sup>19</sup> Total cost is usually determined by reference to a sales invoice. It is not, for example, impacted by federal tax credits that will become available to the applicant on its next tax return or grants from sources other than NJCEP or Board-approved utility programs.

#### **C&I New Construction Incentives**

#### **Custom Measures**

- Performance incentives of \$0.16/kWh and \$1.60/therm of first year savings, 50% of total installed project cost, or buy down to 1-year payback, subject to enhancement, where applicable, pursuant to the table immediately below. Based on estimated savings as approved by the Program Manager.
- Projects will use ASHRAE 90.1-2016 as the baseline for estimating energy savings and the proposed measure(s) <u>must exceed</u> ASHRAE 90.1-2016 standards, where applicable. In cases where ASHRAE guidelines do not apply, the program will require that custom measures meet or exceed industry standards per the Consortium for Energy Efficiency ("CEE"), EPA ENERGY STAR, or using such resources as the current New Jersey baseline studies and other market research; the program experience of the Commercial/Industrial Program Manager; and experience of the New Jersey utilities or utility/public program experience from other comparable jurisdictions.

Incentive **Equipment Type Incentive Amount** Cap Electric Savings: \$0.16/kWh First-Year Savings Cap Gas Savings: \$1.60/therm **Custom Measures Project Cost** 50% of Total Installed **Project Cost** Cap **Buy-Down** Amount to buy-down to 1-Cap year payback

Table 7: C&I Custom Measure Incentives

## **Electric Chillers**

- Note: The manufacturer's published chiller efficiency must be determined using the Air-Conditioning, Heating and Refrigeration Institute ("AHRI") 550/590 test procedures and at the AHRI standard evaporator and condenser temperatures. If an applicant has a water-cooled centrifugal chiller that is designed to operate at other than the AHRI standard conditions the procedure in Standard 90.1-2016, Section 6.4.1.2.1 may be used by the applicant to adjust the manufacturer's published efficiency at non-AHRI conditions to the efficiency at AHRI standard conditions. The applicant will need to provide the manufacturer's non-AHRI ratings, as well as the calculations for the chiller efficiency at AHRI conditions.
- Electrically operated comfort cooling air-cooled and water-cooled chillers are eligible for incentives under the prescriptive path. Chillers for process cooling (e.g. manufacturing,

- data center, food storage or processing, et cetera) loads may apply for an incentive under the custom path.
- Performance Incentives apply for each 0.1 EER above the Incentive Minimum EER or for each 0.01 kW/ton below the Incentive Minimum kW/ton.
- Proposed equipment must exceed minimum program efficiency requirements for Path A (constant speed) IPLV and Path B (variable speed) Full Load.

Table 8: C&I Electric Chiller Incentives

		New Construction					
Equipment Type	Capacity	Consta	nt Speed	Variabl	e Speed		
Type	Capacity	Base \$/ton	Performance \$/ton	Base \$/ton	Performance \$/ton		
Air Cooled	tons < 150	\$10.00	\$3.50	\$45.00	\$4.00		
Chiller	tons <u>&gt;</u> 150	\$10.00	\$2.75	\$46.00	\$4.00		
	tons < 75	\$6.50	\$2.25	\$20.00	\$2.50		
Water Cooled	75 <u>&lt; t</u> ons < 150	\$10.00	\$2.00	\$21.50	\$2.00		
Chiller,	150 <u>&lt;</u> tons < 300	\$8.50	\$2.00	\$21.50	\$2.00		
Positive Displacement	300 <u>&lt;</u> tons < 600	\$7.50	\$2.25	\$18.50	\$2.00		
Displacement	tons <u>&gt;</u> 600	\$15.00	\$2.00	\$22.00	\$2.00		
	tons < 150	\$12.00	\$2.25	\$12.00	\$2.75		
Water	150 <u>&lt;</u> tons < 300	\$5.00	\$2.00	\$15.00	\$2.50		
Cooled Chiller,	300 <u>&lt;</u> tons < 400	\$4.00	\$2.00	\$10.00	\$2.00		
Centrifugal	400 <u>&lt;</u> tons < 600	\$4.00	\$2.00	\$12.50	\$2.00		
	tons <u>&gt; 600</u>	\$4.00	\$2.00	\$12.50	\$2.00		

Table 9: C&I Electric Chiller Minimum Efficiency Requirements

		Constar	nt Speed	Variable	e Speed	Constan	t Speed	Variabl	e Speed
Equipment Type	Capacity	Incentive Minimum Full Load kW/ton	Qualifying IPLV kW/ton	Qualifying Full Load kW/ton	Incentive Minimum IPLV kW/ton	Incentive Minimum Full Load EER	Qualifying IPLV EER	Qualifying Full Load EER	Incentive Minimum IPLV EER
Air Cooled	tons < 150					10.3	13.7	9.7	16.12
Chiller	tons <u>≥</u> 150					10.3	14.0	9.7	16.42
	tons < 75	0.735	0.60	0.78	0.49				
Water Cooled	75 <u>&lt; t</u> ons < 150	0.706	0.56	0.75	0.48				
Chiller,	150 <u>&lt; t</u> ons < 300	0.647	0.54	0.68	0.431				
Positive Displacement	300 <u>&lt; t</u> ons < 600	0.598	0.52	0.625	0.402				
Displacement	tons <u>&gt; 600</u>	0.549	0.50	0.585	0.372				
	tons < 150	0.598	0.55	0.695	0.431				
Water	150 <u>&lt; t</u> ons < 300	0.598	0.55	0.635	0.392				
Cooled Chiller,	300 <u>&lt; t</u> ons < 400	0.549	0.52	0.595	0.382				
Centrifugal	400 <u>&lt;</u> tons < 600	0.549	0.50	0.585	0.372				
	tons <u>&gt; 600</u>	0.549	0.50	0.585	0.372				

# **Gas Cooling**

• For gas chillers, full load efficiencies are determined in accordance with A.H.R.I. 560, however, part load efficiencies are not rated.

Table 10: C&I Gas Absorption Chiller Incentives

Equipment Type	Size Range	Min Efficiency	Incentive
	< 100 tons		\$450/ton
Gas Absorption Chiller	100 to 400 tons	> 1.1 Full Load COP	\$230/ton
	> 400 tons		\$185/ton

Table 11: C&I Regenerative Desiccant Unit Incentives

Equipment Type	Requirement	Incentive
Regenerative Desiccant Unit	Must be matched with core gas or electric cooling equipment.	\$1.00/CFM of process air flow

# **Electric HVAC**

• To be eligible for an incentive, the equipment must exceed the requirements in the tables below.

Table 12: C&I Unitary Electric HVAC Incentives

Equipment Type	Cooling Capacity	Tier	Mir	nimum Effic	ciency	Incentive
Equipment Type	(Btu/h)	Tier	SEER	EER	IEER	\$/Ton
Unitary HVAC	< 65,000	1	14.0			\$92
Split System	< 03,000	2	16.0			\$105
Unitary HVAC	<65 000	1	14.3			\$92
Single Package	<65,000	2	16.0			\$103
TI II TITLE C	$\geq$ 65,000 and <	1		11.5	13.0	\$73
Unitary HVAC Single Package or Split	135,000	2		12.5	14.0	\$79
Single Fackage of Spint  System	$\geq$ 135,000 and <	1		11.5	12.4	\$79
Бувені	240,000	2		12.0	14.0	\$89
	$\geq$ 240,000 and <	1		10.5	11.6	\$79
~	760,000	2		11.0	12.5	\$85
Central DX AC	> 760,000	1		9.7	11.2	\$72
	≥ 760,000	2		10.0	12.0	\$77

Table 13: C&I Air Source Heat Pump Incentives

Equipment Type	Cooling Capacity	Tier		Mini	mum E	Efficien	су	Incentive
Equipment Type	(Btu/h)	1 161	SEER	HSPF	EER	IEER	COP	\$/ton
Air Source Heat Pump	< 65,000	1	14.3	8.4				\$92
Split System	< 03,000	2	15.5	8.5				\$100
Air Source Heat Pump	< 65,000	1	14.3	8.2				\$92
Single Package	< 03,000	2	15.5	8.5				\$100
	$\geq$ 65,000 and <	1			11.5	12.2	3.4	\$73
	135,000	2			12.1	12.8	3.5	\$77
Air Source Heat Pump	≥ 135,000 and < 240,000	1			11.5	11.6	3.3	\$79
Split System		2			11.7	15.0	3.3	\$82
	<u>&gt;</u> 240,000	1			9.5	10.6	3.2	\$79
		2			9.7	12.0	3.2	\$82
	$\geq$ 65,000 and <	1			11.5	12.2	3.4	\$73
	135,000	2			12.1	12.8	3.5	\$77
Air Source Heat Pump	$\geq$ 135,000 and <	1			11.5	11.6	3.3	\$79
Single Package	240,000	2			11.7	15.0	3.3	\$82
	≥ 240,000	1			9.5	10.6	3.2	\$79
		2			9.7	12.0	3.2	\$82

Table 14: C&I Water Source Heat Pump Incentives

Equipment Type	Cooling Capacity	Tier	Minimum Efficiency		Incentive
Equipment Type	(Btu/h)	Her	EER	COP	\$/Ton
	× 17 000	1	12.4	4.3	\$20
	< 17,000	2	14.0	4.8	\$23
Water to Air, Water Loop	≥ 17,000 and < 65,000	1	13.3	4.3	\$30
Heat Pump		2	15.0	4.5	\$34
	$\geq$ 65,000 and < 135,000	1	13.3	4.3	\$40
		2	15.0	4.5	\$45

Table 15: C&I Single Packaged Vertical AC and Heat Pump Incentives

Equipment Type	Cooling Capacity		Minimum	Efficiency	Incentive
Equipment Type	(Btu/h)	Tier	EER	COP	\$/Ton
	. 65 000	1	10.2		\$10
	< 65,000	2	10.7		\$12
Single Packaged Vertical	$\geq$ 65,000 and <	1	10.2		\$10
AC - SPVAC	135,000	2	10.7		\$12
	> 135,000 and < 240,000	1	10.2		\$10
		2	10.7		\$12
	. 65,000	1	10.2	3.1	\$10
	< 65,000	2	10.7	3.2	\$12
Single Packaged Vertical	$\geq$ 65,000 and <	1	10.2	3.1	\$10
Heat Pump - SPVHP	135,000	2	10.7	3.2	\$12
	$\geq$ 135,000 and <	1	10.2	3.1	\$10
	240,000	2	10.7	3.2	\$12

Table 16: C&I Ground Source Heat Pump Incentives

Equipment Type	Cooling Capacity	Tier	Minimum	n Efficiency	Incentive	
Equipment Type	(Btu/h)	1 161	EER	COP	\$/Ton	
	< 135,000	1	14.4	3.2	\$40	
Ground Source Heat Pump		2	18.0	3.6	\$50	
Groundwater Source	× 125 000	1	18.4	3.7	\$40	
Heat Pump	< 135,000	2	22.0	3.9	\$48	

Table 17: C&I Packaged Terminal AC and Heat Pump Incentives

F :	Cooling Capacity	Minimum	Efficiency	Incentive
Equipment Type	(Btu/hr)	EER	COP	\$/Ton
	< 7,000	12.0		
	≥ 7,000	12.0		
	≥ 8,000	11.7		
	≥ 9,000	11.4		
Packaged Terminal AC	<u>≥</u> 10,000	11.1		
Tackageu Terminar Ac	≥ 11,000	10.8		
	≥ 12,000	10.5		
	≥ 13,000	10.2		
	≥ 14,000	9.9		\$20/ton
	≥ 15,000	9.6		
	< 7,000	12.0	3.4	(all cooling
	≥ 7,000	12.0	3.4	capacities)
	≥ 8,000	11.7	3.3	
	≥ 9,000	11.4	3.3	
Packaged Terminal Heat	≥ 10,000	11.1	3.2	
Pump	≥ 11,000	10.8	3.2	
	≥ 12,000	10.5	3.1	
	≥ 13,000	10.2	3.1	
	≥ 14,000	9.9	3.0	
	≥ 15,000	9.6	3.0	

Table 18: C&I Electric HVAC Controls Incentives

 Hospitality/institutional buildings with more than 50 units are not eligible for Occupancy Controlled Thermostats for Hospitality/Institutional Facilities incentive.

Equipment Type	Controlled Unit Size	Incentive
Occupancy Controlled Thermostats for Hospitality/Institutional Facilities	Any capacity	\$75 per occupancy- controlled thermostat
A/C Economizing	≤ 5 tons	\$85/control
Control	> 5 tons	\$170/control

# **Gas Heating**

Table 19: C&I Non-Condensing Boiler HVAC Incentives

Equipment Type	Boiler Type	Size (Input Rate)	Minimum Efficiency	Incentive
		< 300 MBtu/h	85% AFUE	\$0.95/MBH; Min \$400
		> 300 to 1,500 MBtu/h	85% Et	\$1.75/MBh
	Hot Water	> 1,500 to 2,500 MBtu/h	85% Et	\$1.50/MBh
		> 2500 to 4,000 MBtu/h	85% Ec	\$1.30/MBh
		< 300 MBtu/h	82% AFUE	\$1.40/MBH; Min \$400
	Steam, all except - natural draft	> 300 to 1,500 MBtu/h	81% Et	\$1.20/MBh
Gas Boiler, Non-Condensing		> 1,500 to 2,500 MBtu/h	81% Et	\$1.20/MBh
		> 2,500 to 4,000 MBtu/h	81% Et	\$1.00/MBh
		< 300 MBtu/h	82% AFUE	\$1.40/MBH; Min \$300
	Steere meturel	> 300 to 1,500 MBtu/h	79% Et	\$1.00/MBh
	Steam, natural draft	> 1500 to 2,500 MBtu/h	79% Et	\$0.90/MBh
		> 2,500 to 4,000 MBtu/h	79% Et	\$0.70/MBh
	All types	> 4,000 MBtu/h		Treated under Custom Measure Path

Table 20: C&I Condensing Boiler HVAC Incentives

Equipment Type	Boiler Type	Size (Input Rate)	Minimum Efficiency	Incentive
		< 300 MBtu/h	88% AFUE	\$1.35/MBH; Min \$1000
			93% AFUE	\$2.00/MBH; Min \$1,000
		> 300 to 1,500	88% Et	\$2.00/MBh; Min \$1000
		MBtu/h	91% Et	\$2.20/MBh; Min \$1000
Gas Boiler,	Hot Water	> 1,500 to 2,500	88% Et	\$1.85/MBh
Condensing	Tiot water	MBtu/h	93% Et	\$2.20/MBh
		> 2500 to 4,000	88% Ec	\$1.55/MBh
		MBtu/h	93% Ec	\$2.00/MBh
		> 4,000 MBtu/h		Treated under Custom
				Measure Path

Table 21: C&I Gas Furnace and Infrared Heater Incentives

Equipment Type	Capacity	Requirement Minimum Efficiency		Incentive
		ENERGY STAR®	≥ 95% AFUE	\$400
Gas Furnace	All Sizes	Qualified, 2.0% Fan Efficiency	≥ 97% AFUE	\$500
	≤ 100 MBtu/h	Low intensity infrared		\$500
Gas Infrared Heater	> 100 MBtu/h	heater with reflectors.  For indoor use only.	n/a	\$300

Table 22: C&I Domestic Hot Water Pipe Wrap Insulation Incentives

• Pipe insulation thickness must exceed required thickness listed in ASHRAE 90.1-2016 Table 6.8.3-1.

Equipment Type	Pipe Diameter	Incentive
Domestic Hot Water Pipe Wrap	$\leq$ 0.5 inch diameter piping	\$1/linear foot
Insulation	> 0.5 inch diameter piping	\$2/linear foot

# **Gas Water Heating**

Table 23: C&I Gas Water Heating Incentives

Equipment Type	Water Heater Type	Size (Input Rate)	Min Efficiency	Incentive
		≤ 75 MBtu/h	≥ 0.64 UEF	\$1.75/ MBtu/h
		(consumer)	≥ 0.85 UEF	\$3.50/ MBtu/h
	Confined Stamon	>75 MBtu/h and ≤ 105 MBtu/h	≥ 82% Et or ≥ 0.64 UEF	\$1.75/ MBtu/h
	Gas-fired, Storage	(residential duty commercial)	≥ 90% Et or ≥ 0.85 UEF	\$3.50/ MBtu/h
Gas Water Heaters		> 105 MBtu/h (commercial)	≥ 82% Et	\$1.75/ MBtu/h
Heaters			≥ 92% Et	\$3.50/ MBtu/h
	Gas-fired, instant	< 200 MBtu/h (consumer)	≥ 90% Et or ≥ 0.90 UEF	\$300/unit
	(tankless)	$\geq$ 200 MBtu/h (commercial)	≥ 90% Et	\$300/unit
	Gas-fired, Water	≤ 100 MBtu/h	n/a	\$35/ MBtu/h
Booster Heater	> 100 MBtu/h	n/a	\$17/ MBtu/h	

Table 24: C&I Low-Flow Fixture Incentives

Equipment Type	Pipe Diameter	Incentive
Low Flow Showerhead	Tier 1 (2 GPM – EPA Water Sense)	\$10/showerhead
Low Flow Showerhead	Tier 2 (1.5 GPM or Less)	\$15/showerhead
Low Flow Faucet Aerator	Tier 1 (1.5 GPM – EPA Water Sense)	\$2/aerator
	Tier 2 (1 GPM or Less)	\$4/aerator

# **Variable Frequency Drives**

- Motor Size (HP) Controlled per VFD is the cumulative motor HP controlled by each VFD.
- Controlled Motor HP less than the listed range of eligible values are ineligible for incentives.
- Controlled Motor HP more than the listed eligible values should use the C&I Custom program.
  - o For all VFD measure except air compressors, the maximum controlled threshold is 50HP. VFDs controlling more than 50HP, except related to air compressors, will be reviewed through the custom measure path.
  - For new air compressors with VFDs, prescriptive incentives will be provided for units up to 200HP. VFDs controlling air compressor motors exceeding 200HP will be reviewed through the custom measure path.
- If the controlled HP falls in between the HP listed on the VFD incentive table, the incentive is based on the lower controlled HP listed.

Table 25: C&I VFD Incentives

Equipment Type	Motor Size (HP) Controlled per VFD	Incentive
	0.5	\$50
	1	\$75
	2	\$100
	3	\$200
	4	\$300
	5	\$900
	7.5	\$1000
	10	\$1,100
Variable Frequency Drives	15	\$1,200
variable Frequency Drives	20	\$1,300
	25	\$1,400
	30	\$1,500
	40	\$2,500
	50	\$3,000
	60	\$3,500
	75	\$4,000
	100	\$5,000
	200	\$7,000

Table 26: VFD Eligible Size Range of Controlled Motor

Equipment Type	Eligible Size Range of Controlled Motor	Eligibility Requirements
VFD on Chilled Water Pump	20 HP ≤ 50 HP	Must be installing VFD on centrifugal chilled water pump motors for HVAC systems only.
VFD on Air Compressor	25 HP ≤ 200 HP	Must be installing VFD on new air or water cooled, single or double stage, oil lubricated or oil free twin rotor screw air compressors outfitted with VFDs (providing compressed air for typical plant air use).  Only one VFD controlled air compressor will be eligible for an incentive for each compressed air system.

## **Performance Lighting**

- Performance Lighting incentives are available for eligible indoor light fixtures and outdoor fixtures where electricity usage is billed through the applicant's meter in new construction and substantial renovations of existing buildings. Substantial renovations of areas within existing buildings are also eligible only if existing lighting is completely removed.<sup>20</sup>
- Proposed lighting design must demonstrate lighting power density ("LPD") lower than specified by ASHRAE 90.1-2016 for all relevant eligible spaces, except as specifically excepted in Section 9.1.1 and 9.2.2.3 of ASHRAE 90.1-2016.
  - Note: Horticultural lighting incentives, which are covered by the exception immediately above, are available in accordance with Table 28: C&I DLC® Certified Indoor Horticultural LED Fixtures.
- Proposed lighting design must predominantly consist of LED fixtures and lamps qualified by DesignLights Consortium® or ENERGY STAR®.

Table 27: C&I Performance-Based Lighting Incentives

Equipment Type	Incentive Cap	Incentive Caps	
Performance-Based Lighting	Design Wattage Cap	\$1/Watt over the LPD baseline per qualified area	

Table 28: C&I DLC® Certified Indoor Horticultural LED Fixtures

Equipment Type	Facility Type	New LED Fixture Wattage	Incentive
DesignLights Consortium®	Indoor Horticultural Facilities	≥ 500 Watts	\$250/fixture
Qualified <u>Horticultural LED</u>	Operating ≥ 3000 hours/year	< 500 watts	\$150/fixture
<u>Fixtures</u>	Indoor Horticultural Facilities Operating < 3000 hours/year	≥ 500 Watts	\$200/fixture
Qualified Products List <sup>21</sup>		< 500 watts	\$50/fixture

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<sup>&</sup>lt;sup>20</sup> A given substantial renovation project may be eligible for a utility-sponsored EE program as well as for this Program. If it is, the applicant would be able to choose which program it would utilize. I.e., the applicant could have one or the other program, but not both, cover the project. NJCEP and the relevant utility-sponsored EE programs have, or will have, program rules and procedures to implement the foregoing.

<sup>&</sup>lt;sup>21</sup> https://www.designlights.org/

# **Food Service Equipment**

Table 29: C&I Dishwasher Incentives

• Equipment must be qualified by the current version of ENERGY STAR® or CEE.

Equipment Type	Description	Incentive
	Under Counter	\$400 per unit
Commercial	Door Type	\$700 per unit
Dishwasher	Single Tank Conveyor	\$1,000 per unit
	Multiple Tank Conveyor	\$1,500 per unit

Table 30: C&I Cooking Equipment Incentives

- Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined in the table at the end of this section.
- Commercial Fryers: Multiple vat configurations are paid per qualifying vat.

Equipment Type	Description	Incentive
Commercial	Electric	\$1,000 per oven
Combination Oven/Steamer	Gas	\$750 per oven
Commercial	Electric	\$350 per oven
Convection Oven	Gas	\$500 per oven
Commercial Rack	Single oven (Gas)	\$1,000 per single oven
Oven	Double oven (Gas)	\$2,000 per double oven
Commondal Europ	Electric	\$200 per vat
Commercial Fryer	Gas	\$749 per vat
Commercial Large Vat	Electric	\$200 per vat
Fryer	Gas	\$500 per vat
Commonsial Cuiddle	Electric	\$300 per griddle
Commercial Griddle	Gas	\$125 per griddle
Commercial Steam	Electric	\$1,250 per steamer
Cooker	Gas	\$2,000 per steamer

### Table 31: C&I Insulated Holding Cabinet Incentives

- Must meet CEE Tier II or current ENERGY STAR specification.
- Does not include cook and hold equipment.
- All measures must be electric hot food holding cabinets that are fully insulated and have solid doors.

Equipment Type	Size	Incentive
	Full Size	\$300 per unit
Insulated Holding Cabinets	¾ Size	\$250 per unit
	½ Size	\$200 per unit

Table 32: C&I ENERGY STAR® Refrigerator and Freezer Incentives

- The refrigeration system must be built-in (packaged).
- Cases with remote refrigeration systems do not qualify.
- Must meet ENERGY STAR Version 4.0 specification.

Equipment Type	Refrigerator/Freezer Internal Volume	Incentive			
ENERGY STAR®	< 15 ft <sup>3</sup>	\$75 per unit			
Commercial	$\geq 15 \text{ to} < 30 \text{ ft}^3$	\$100 per unit			
Glass Door	$\geq 30 \text{ to} < 50 \text{ ft}^3$	\$125 per unit			
Refrigerator	≥ 50 ft <sup>3</sup>	\$150 per unit			
ENERGY STAR®	< 15 ft <sup>3</sup>	\$50 per unit			
Commercial	$\geq 15 \text{ to} < 30 \text{ ft}^3$	\$75 per unit			
Solid Door	$\geq 30 \text{ to} < 50 \text{ ft}^3$	\$125 per unit			
Refrigerator	$\geq 50   \mathrm{ft}^3$	\$200 per unit			
	< 15 ft <sup>3</sup>	\$200 per unit			
ENERGY STAR®	$\geq 15 \text{ to} < 30 \text{ ft}^3$	\$250 per unit			
Commercial Glass Door Freezer	$\geq 30 \text{ to} < 50 \text{ ft}^3$	\$500 per unit			
<u> </u>	$\geq 50   \mathrm{ft}^3$	\$1,000 per unit			
	< 15 ft <sup>3</sup>	\$100 per unit			
ENERGY STAR®	$\geq 15 \text{ to} < 30 \text{ ft}^3$	\$150 per unit			
Commercial Solid Door Freezer	$\geq 30 \text{ to} < 50 \text{ ft}^3$	\$300 per unit			
	≥ 50 ft <sup>3</sup>	\$600 per unit			

#### Table 33: C&I ENERGY STAR® Ice Machine Incentives

- Ice machines must be tested in accordance with the Air Conditioning and Refrigeration Institute (ARI) Standard 810.
- Includes machines generating ice cubes that are 60 grams (2 oz.) or lighter. It also includes flaked, crushed and fragmented ice makers.
- Only air-cooled machines (self-contained, ice making heads, or remote condensing) qualify.
- The entire ARI tested ice making system must be purchased.
- Remote machines must be purchased with qualifying remote condenser or remote condenser/compressor unit.
- The efficiency specifications for the two qualifying tiers are equivalent to ENERGY STAR® or Super-Efficient. ENERGY STAR® ice machines must meet ENERGY STAR® Version 3.0 specification.

Equipment Type	Ice Harvest Rate	Incentive		
	101–200 lbs/day	\$50 per unit		
	201–300 lbs/day	\$50 per unit		
ENERGY STAR®	301–400 lbs/day	\$75 per unit		
Commercial	401–500 lbs/day	\$75 per unit		
Ice Machine	501–1000 lbs/day	\$125 per unit		
	1001–1500 lbs/day	\$200 per unit		
	Greater than 1500 lbs/day	\$250 per unit		
	101–200 lbs/day	\$100 per unit		
	201–300 lbs/day	\$100 per unit		
	301–400 lbs/day	\$150 per unit		
Super-Efficient Ice Machine	401–500 lbs/day	\$150 per unit		
Macnine	501–1000 lbs/day	\$250 per unit		
	1001–1500 lbs/day	\$400 per unit		
	Greater than 1500 lbs/day	\$500 per unit		

Table 34: C&I ASTM Cooking Equipment Criteria

Equipment Type	Fuel	ASTM Cooking Equipment Criteria				
Commercial	Electric	<ul> <li>Must meet the idle energy rate requirements in the Electric Combination Oven/Steamer Table, utilizing American Society for Testing and Materials (ASTM) F2861.</li> <li>Must have a cooking energy efficiency of 55 percent or greater in steam mode and 76 percent cooking energy efficiency or greater in convection mode, utilizing (ASTM) F2861.</li> <li>Combination oven/steamer pan capacity based on the maximum capacity of full-size 2 1/2-inch deep hotel pans. This must be consistent with the number of pans used to meet the energy-efficiency qualifications per ASTM F2861.</li> </ul>				
Combination Oven/Steamer	Gas	<ul> <li>Must have a cooking energy efficiency of 41 percent or greater in steam mode and 56 percent or greater in convection mode, utilizing ASTM F2861.</li> <li>Must meet the idle energy rate requirements in the Gas Commercial Combination Oven/Steamer Table, utilizing ASTM F2861.</li> <li>Combination oven/steamer pan capacity on based on the maximum capacity of full-size 2 1/2-inch deep hotel pans. This must be consistent with the number of pans used to meet the energy-efficiency qualifications per ASTM F2861.</li> </ul>				
Commercial Convection Oven	Electric	<ul> <li>Must have a tested heavy load (potato) cooking energy efficiency of 71 percent or more, utilizing ASTM F1496.</li> <li>Full-size electric ovens must have a tested idle energy rate of 1.6 kW or less, utilizing ASTM F1496.</li> <li>Half-size electric ovens must have a tested idle energy rate of 1.0 kW or less, utilizing ASTM F1496.</li> </ul>				
	Gas	Must have a tested heavy load (potato) cooking energy efficiency of 46 percent or greater and an idle energy rate of 12,000 Btu/h or less, utilizing ASTM F1496.				
Commercial Rack Oven	Gas	<ul> <li>Single rack ovens must have a tested baking energy efficiency of 48 percent or greater and a total energy idle rate of 25,000 Btu/h or less, utilizing ASTM F2093.</li> <li>Double rack ovens must have a tested baking energy efficiency of 52 percent or greater and a total energy idle rate of 30,000 Btu/h or less, utilizing ASTM F2093.</li> </ul>				
Commercial	Electric	Must have a tested heavy load cooking energy efficiency of 83 percent or greater and an idle energy rate of 800 W or less, utilizing ASTM F1361.				
Fryer	Gas	Must meet a tested heavy load cooking energy efficiency of 50 percent or greater and an idle energy rate of 9,000 Btu/h or less, utilizing ASTM F1361.				
Commercial	Electric	Must have a tested heavy load (French fry) cooking energy efficiency of 80 percent or greater and an idle energy rate of 1,100 W or less, utilizing ASTM F2144.				
Large Vat Fryer	Gas	Must have a tested heavy load (French fry) cooking energy efficiency of 50 percent or greater and an idle energy rate of 12,000 Btu/h or less, utilizing ASTM F2144.				
Commercial	Electric	Must have a tested heavy load cooking energy efficiency of 70 percent or greater and an idle energy rate of 355 watts per square foot of cooking surface or less, utilizing ASTM F1275.				
Griddle	Gas	Must have a tested heavy load cooking energy efficiency of 38 percent or greater and an idle energy rate of 2,650 Btu/h per square foot of cooking surface or less, utilizing ASTM F1275.				
Commercial	Electric	Must have a tested heavy load (potato) cooking energy efficiency of 50 percent or greater, utilizing ASTM F1484.				
Steam Cooker	Gas	Must have a tested heavy load (potato) cooking energy efficiency of 38 percent or greater, utilizing ASTM F1484.				

Note: The incentives identified above in this Appendix B: C&I and DER Incentives and General Rules may be reduced with the approval of the Division of Clean Energy.

#### CHP-FC Incentive Levels & Schedule

Table 35: CHP-FC Technology and Incentive Levels

Eligible Technology	Size (Installed Rated Capacity)	Incentive (\$/Watt) (5)	% of Total Cost Cap per project	\$ Cap per project	
CHPs powered by non-renewable or renewable fuel source, or a	≤500 kW <sup>(1)</sup>	\$2.00	30-40%(2)	\$2 million	
combination <sup>(4):</sup>	$>500 \text{ kW} - 1 \text{ MW}^{(1)}$	\$1.00			
<ul> <li>Gas Internal Combustion Engine</li> <li>Gas Combustion Turbine</li> </ul>	>1 MW – 3 MW <sup>(1)</sup>	\$0.55		\$3 million	
• Microturbine ≥ 60% FCs	>3 MW <sup>(1)</sup>	\$0.35	30%		
≥ 40% FCs	All of the above <sup>(1)</sup>	Applicable amount above	30%	\$1 million	
WHPs <sup>(3)</sup>	≤1 MW <sup>(1)</sup>	\$1.00	30%	\$2 million	
Powered by non-renewable fuel source. Heat recovery or other mechanical recovery from existing equipment utilizing new electric generation equipment (e.g. steam turbine)	>1 MW <sup>(1)</sup>	\$0.50	30%	\$3 million	

- 1. Incentives are tiered, which means the incentive levels vary based upon the installed rated capacity, as listed in the chart above. For example, a 4 MW CHP system would receive \$2.00/watt for the first 500 kW, \$1.00/watt for the second 500 kW, \$0.55/watt for the next 2 MW and \$0.35/watt for the last 1 MW (up to the caps listed).
- 2. The maximum incentive will be limited to 30% of total project. This cap will be increased to 40% where the recovered heat is used in a cooling application (e.g. absorption chiller) at the facility at which the CHP-FC system is located.
- 3. Projects installing CHP with WHP will be eligible for incentives shown above, not to exceed the lesser of percent per project cap or dollars per project cap of the CHP. Minimum efficiency will be calculated based on annual total electricity generated, utilized waste heat at the host site (i.e. not lost/rejected), and energy input.
- 4. Systems fueled by a Class 1 renewable fuel source are eligible for a 30% incentive bonus (additional to the incentives calculated in accordance with the table immediately above, but still subject to the project Cap in that table). If the fuel is mixed, the bonus will be prorated accordingly. For example, if the mix is 60/40 (60% being a Class 1 renewable),

- the bonus will be 18%. This bonus will be included in the final partial payment, based on system performance and fuel mix consumption data.
- 5. All CHP-FC systems located at Critical Facility and incorporating blackstart/islanding technology are eligible for a 25% incentive bonus (additional to the incentives calculated in accordance with the table immediately above, but still subject to the project Cap in that table). For this Program, a Critical Facility is any:
  - a. Public facility, including, without limitation, any federal, state, county, or municipal facility, or
  - b. Non-profit and/or private for-profit facility, including, without limitation, any hospital, water/wastewater treatment facility, school, multifamily building, or similar facility that:
    - i. Is determined to be either Tier 1 or critical infrastructure by the New Jersey State Office of Emergency Management or Office of Homeland Security and Preparedness, or
    - ii. Could serve as a Shelter during a power outage. For this Program, a Shelter is a facility able to provide food, sleeping arrangements, and other amenities to its residents and the community.

For the avoidance of doubt, any public facility is a Critical Facility.

1 <sup>st</sup> – Purchase	2 <sup>nd</sup> - Installation	3 <sup>rd</sup> - Acceptance of post-installation data			
30%	50%	20%			

Table 36: CHP-FC Incentive Payment Schedule

- 1. Projects will receive program incentives in three partial payments. The first incentive will be paid upon proof of purchase of equipment. The second incentive will be paid upon project installation and operation, including successful inspection. The third incentive will be paid upon acceptance and confirmation that the project is achieving the required performance thresholds based on twelve (12) months of continuous operating data submitted within eighteen (18) months of installation, with the foregoing deadline being subject to being extended for six (6) additional months by the Program Manager upon the request of the applicant submitted prior to the expiration of the deadline and for good cause shown.
  - a. If, due to impacts of COVID-19, the applicant is unable to provide the requisite twelve (12) months of representative data to demonstrate the project is achieving the required performance thresholds, the Program Manager is authorized to work with the applicant to develop and accept other reasonable methods for estimating or demonstrating whether or not the performance thresholds have been met.
- 2. Regarding the third incentive, if all other required performance thresholds are achieved:
  - a. And the total annual net kWh generated is  $\ge 80\%$  of that specified in the Program-approved application, the full third incentive is earned.
  - b. But the total annual net kWh generated is  $\geq 50\%$  but < 80%, of that specified in the Program-approved application, the amount of the third incentive earned is reduced

- proportionately by the ratio of actual total annual net kWh generated to the approved application total annual net kWh generated.
- c. But the total annual net kWh generated is <50% of that specified in the Program-approved application, no third incentive is earned.

# **Appendix C: Multifamily Decision Tree**

Figure 1 ENERGY STAR Multifamily Guidelines Version 2.1

EPA ENERGY STAR Multifamily New Construction Program Decision Tree

# Is the building new construction AND residential?? YES Is the building a motel/hotel or senior care community ? NO Does the building have one or two units, or is it a townhome 4? YES NO

ENERGY STAR Multifamily New Construction

#### NOTES:

**ENERGY STAR** 

Single-Family New Homes

- New construction can include significant gut rehabilitations if the building is able to meet all the program requirements.
- 2. The primary use of the building must be for a residential purpose. In a mixed-use building, the dwelling units and common space combined must exceed 50% of the building's square footage. Parking garage square footage is excluded from this calculation. Common space includes any spaces in the building that serve a function in support of the residential part of the building, that is not part of a dwelling or sleeping unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, residential recreation rooms, and dining halls, as well as offices and other spaces used by building management, administration or maintenance in support of the residents.
- Assisted living and skilled nursing facilities that meet the definition of <u>Senior Care Communities</u> are not eligible for the MFNC program.
- 4. Townhomes may choose to use the Multifamily New Construction Checklists as well, but they must use the ERI Path and Single-Family New Homes Reference Design. A townhome is defined as a single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides.
- 5. As of September 16, 2014, multifamily buildings, with at least 1 year of actual, whole building energy use data are eligible to earn the ENERGY STAR using EPA's Portfolio Manager. Portfolio Manager compares a multifamily building's measured performance against a database of similar buildings to generate a 1-100 score. Buildings that score 75 or above earn the ENERGY STAR. For more information on how multifamily buildings can earn the ENERGY STAR with Portfolio Manager please visit the eligibility criteria for the 1-100 ENERGY STAR score page.

New construction commercial facilities such as motels/hotels, nursing homes, and assisted-living facilities do not qualify under the Multifamily New Construction program, however, they may be eligible to earn the ENERGY STAR through the EPA's commercial and industrial programs. To learn more about how these and other existing commercial buildings can earn ENERGY STAR certification, please visit the <a href="Buildings and Plants">Buildings</a> page. To learn more about the new construction program for commercial buildings visit <a href="www.energystar.gov/DesignToEarn">www.energystar.gov/DesignToEarn</a>.

January 2021

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# **Appendix D: Program Budgets**

TRC FY23		FY23 Cost Category Budgets					
Program/Budget Line	Total Budget	Administration	Sales, Marketing, Website	Training	Rebates, Grants and Other Direct Incentives	Rebate Processing and QA	Evaluation
Total TRC	\$136,792,385	\$11,654,403	\$3,652,544	\$147,500	\$117,465,104	\$3,872,834	\$0
EE Programs	\$108,630,936	\$9,371,035	\$365,460	\$122,500	\$96,661,149	\$2,110,792	\$0
New Construction Programs	\$30,316,692	\$3,532,043	\$121,820	\$85,000	\$25,302,369	\$1,275,460	\$0
New Construction	\$30,316,692	\$3,532,043	\$121,820	\$85,000	\$25,302,369	\$1,275,460	<i>\$0</i>
C&I EE Programs	\$78,264,244	\$5,838,992	\$243,640	\$37,500	\$71,308,780	\$835,332	\$0
C&I Buildings	\$67,187,357	\$3,742,212	\$121,820	\$12,500	\$62,691,396	\$619,429	\$0
LGEA	\$3,981,302	\$1,230,771	\$121,820	\$25,000	\$2,407,121	\$196,590	\$0
DI	\$7,095,585	\$866,009	\$0	\$0	\$6,210,263	\$19,313	\$0
Energy Efficiency Transition	\$50,000	\$0	\$0	\$0	\$50,000	\$0	\$0
Energy Efficiency Transition	\$50,000	\$0	\$0	\$0	\$50,000	\$0	\$0
Distributed Energy							
Resources	\$22,084,108	\$979,080	\$121,820	\$0	\$20,803,955	\$179,253	\$0
CHP - Fuel Cell	\$22,084,108	\$979,080	\$121,820	\$0	\$20,803,955	\$179,253	\$0
RE Programs	\$3,033,896	\$1,304,288	\$121,819	\$25,000	\$0	\$1,582,789	\$0
Solar Registration	\$3,033,896	\$1,304,288	\$121,819	\$25,000	\$0	\$1,582,789	\$0
Planning and Administration	\$3,043,445	\$0	\$3,043,445	\$0	\$0	\$0	\$0
Outreach and Education	\$3,043,445	\$0	\$3,043,445	\$0	\$0	\$0	\$0
Outreach, Website, Other	\$3,043,445	\$0	\$3,043,445	\$0	\$0	\$0	\$0

# **Appendix E: Program Goals and Performance Metrics**

NJCEP FY23 Energy Savings Goals: Portfolio Summary								
Program/Budget Line	Annual MWH Savings	Lifetime MWH Savings	MW Savings	Annual MMBTU Savings	Lifetime MMBTU Savings			
Total TRC	125,100	2,115,692	23.0	338,843	6,315,859			
EE Programs	77,276	1,278,907	17.3	165,620	3,284,502			
C&I EE Programs	67,433	1,094,308	14.5	93,277	1,843,440			
C&I Buildings	62,377	1,018,622	13.4	80,773	1,629,126			
C&I Retrofit	24,409	383,956	5.6	(2,880)	(53,228)			
P4P EB	13,633	215,122	4.5	46,281	1,013,558			
LEUP	21,872	380,805	2.9	30,097	541,712			
Customer Tailored EB	2,463	38,739	0.4	7,275	127,085			
LGEA	0	0	0.0	0	0			
DI	5,056	75,686	1.1	12,504	214,314			
New Construction Programs	9,843	184,599	2.8	72,343	1,441,062			
Residential	6,103	122,058	1.7	69,746	1,394,917			
C&I	3,740	62,541	1.1	2,597	46,145			
Distributed Energy Resources	47,824	836,784	5.7	173,223	3,031,357			

# **Appendix F: Cost-Benefit Analysis**

Cost-effectiveness analysis compares the costs and benefits of energy efficiency and renewable energy measures, programs and portfolios of programs. Estimates of both costs and benefits are relative to those that would otherwise have been incurred had "baseline" or "standard" equipment, building systems and/or energy using practices been purchased or remained in place. A measure, program, or portfolio is considered cost-effective if the benefit-cost ratio is 1.0 or greater.

TRC, in collaboration with the Center for Green Building of the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, conducted a cost-benefit analysis ("CBA") for residential, commercial, and industrial NJCEP EE programs.

#### Cost-Benefit Tests

Benefit cost ratios for each of the five traditional cost-effective tests were developed. The five tests are: Participant Cost Test, Program Administration Cost Test, Ratepayer Impact Measure Test, Total Resource Cost Test and Societal Cost Test.<sup>22</sup> In addition, a benefit cost ratio was also developed using the New Jersey Cost Test.

<u>Participant Cost Test:</u> The measure of the quantifiable benefits and costs to the customer attributed to participation in a program. The participant benefits are equal to the sum of any participant incentives paid, any reductions in bills, and any federal or state tax deductions or credits. Participant costs include any out-of-pocket costs associated with the program.

**Program Administrator Cost Test:** The costs of a program as a resource option based on the costs incurred by the program administrator including incentive costs and excluding any costs incurred by the participant. The benefits are the avoided supply costs of energy and demand and the reduction in capacity valued at marginal costs for the periods when there is a load reduction. The costs are the program costs incurred by the administrator, the incentives paid to the customers, and the increased supply costs for the periods in which load is increased.

Ratepayer Impact Measure Test: Measure of what happens to customer bills or rates due to changes in revenues and operating costs caused by the program. The benefits equal the savings from avoided supply costs, including the reduction in capacity costs for periods when load has been reduced and the increase in revenues for periods in which load has increased. The costs are the program costs incurred by administration of the program, the incentives paid to the participant, decreased revenues for any periods in which load has been decreased and increased supply costs for any periods when load has increased.

<u>Total Resource Cost Test:</u> The costs of a program as a resource option based on the total costs of the program, including both the participants' and the utility's costs. This test represents the combination of the effects of a program on both the participating and non-participating customers. The benefits are the avoided supply costs, federal tax credits, and the reduction in generation and capacity costs valued at marginal cost for the periods when there is a load reduction. The costs

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<sup>&</sup>lt;sup>22</sup> California Standard Practice Manual. Economic Analysis of Demand-Side Programs and Projects. (October 2001).

are the program costs paid by the utility and participants plus the increase in supply costs for the periods in which load is increased.

<u>Societal Cost Test:</u> Attempts to quantify the change in the total resource costs to society as a whole rather than only to the utility and its ratepayers. Costs include all consumer, utility and program expenses. Benefits associated with the societal perspective include avoided power supply costs, capacity benefits, avoided transmission and distribution costs, and emissions savings. It has been assumed that wholesale electricity prices account for the national sulfur dioxide and nitrogen oxide allowance. Therefore, the societal cost test includes only emissions savings accrued from carbon dioxide. Federal tax credits are <u>not</u> included.

New Jersey Cost Test: In accordance with the Board's Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs, In re the Implementation of P.L. 2018, c. 17 Regarding the Establishment of Energy Efficiency and Peak Demand Reduction Programs, Docket Nos. QO19010040, QO19060748 & QO17091004 (June 10, 2020) ("Framework Order"), this test uses the California Standard Practice Manual's ("CSPM's") Total Resource Cost Test, which includes consideration of certain non-energy impacts. Its avoided cost values are based upon the Rutgers University Center for Green Building Technical Memo, Energy Efficiency Benefit-Cost Analysis Avoided Cost Assumptions for 2019 BCA, March 2021, Updated May 6, 2021. In the future, and after considering any stakeholder input, this test may be revised to include additional non-energy impacts.

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The table below includes the results of the benefit cost modeling.

NJCEP FY23 Prospective Benefit Cost Analysis								
Program/Budget Line	РСТ	PACT	RIM	TRC	SCT	NJCT		
Total TRC	3.3	2.0	0.3	0.9	1.3	2.2		
EE Programs	3.0	1.5	0.3	0.8	1.1	1.9		
C&I EE Programs	3.1	1.7	0.3	0.9	1.3	2.1		
C&I Buildings	3.1	2.1	0.3	1.0	1.3	2.2		
C&I Retrofit	2.6	2.1	0.4	0.9	1.2	2.0		
P4P EB	4.6	3.5	0.4	1.8	2.3	3.9		
LEUP	2.7	1.4	0.3	0.7	1.0	1.7		
Customer Tailored EB	4.9	3.2	0.3	1.5	2.1	3.5		
LGEA	0.0	0.0	0.0	0.0	0.0	0.0		
DI	3.6	1.0	0.3	0.9	1.2	2.0		
New Construction Programs	2.7	0.9	0.3	0.6	0.8	1.3		
Residential	2.7	0.9	0.2	0.6	0.7	1.3		
C&I	2.7	0.8	0.3	0.6	0.8	1.4		
Distributed Energy Resources	4.1	7.1	0.3	1.2	1.7	2.9		