From:	ee-bounces@njcleanenergy.com on behalf of Jones, Sherri
To:	"ee@njcleanenergy.com"
Subject:	NJCEP Proposed Multifamily Program
Date:	Wednesday, September 26, 2018 5:17:23 PM
Attachments:	Multifamily Program Proposal 09 26 18.pdf ATT00001.txt

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Good afternoon,

Thank you to those who participated in the stakeholder meetings related to the Multifamily Program's development. Attached is the proposed NJCEP Multifamily Program design. We are requesting comments on this proposal.

Please submit any comments by 5pm on October 10, 2018 to publiccomments@NJCleanEnergy.com under the subject heading "Multifamily Program Design Comments."

Thank you,

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Multifamily Sections of Updated TRC Compliance Filing, Volume 2

Contents

Multifamily Program Description

Program Purpose and Strategy Overview

Historically, New Jersey Clean Energy Program ("NJCEP") has provided energy efficiency incentives to multifamily projects through a variety of Residential and Commercial and Industrial ("C&I") programs, with the choice of program being dependent on the size, utility meter configuration, and construction details of the multifamily housing in question, as well as on the energy efficiency opportunities present. While this approach has resulted in energy efficiency improvements for many multifamily properties, the complex criteria required to choose the "right" program often create some confusion for applicants, as a result there are missed savings opportunities.

Therefore, a new Multifamily ("MF") Program will be introduced to advance the following objectives:

- Simplify participation by consolidating the multiple energy efficiency programs offered to multifamily properties into a single program, with a streamlined entry point and multiple program paths.
- Provide dedicated multifamily technical outreach and assistance.
- Improve access for segments of MF housing that have been unable to participate because current MF offerings have not been a good fit.
- Streamline program administration.
- Increase participation and maximize savings for incentive dollars spent.

Program Description

The Multifamily program will include multiple program paths based on the needs and scope of each project. The multi-path approach will reward projects that take a more comprehensive approach to achieving energy savings, but will also provide a simpler, prescriptive path to make participation possible for projects that are not able or willing to make a larger commitment. The program will strive to engage with prescriptive-level participants so that they see NJCEP as a resource for future projects and to urge them to think of energy efficiency as an ongoing process rather than a one-time project. Outreach Account Managers, in collaboration with the Program Manager and their staff, will make sure that applicants understand each program path and help determine which path is most appropriate for applicants' respective project(s).

1) Path A: Single-measure Prescriptive: Single-measure prescriptive is the appropriate path for properties looking to improve on one or a few energy end-use elements. This path includes fixed value Rebates for popular energy efficiency measures, including Lighting, HVAC, Water Heating, and Appliances.

2) Path B: Multi-measure Prescriptive and Custom Measures: The multi-measure prescriptive and custom measures path is appropriate for properties planning beyond basic improvements but cannot commit to a whole-building/comprehensive plan. This path includes fixed value Rebates for bundled improvements at a single project site, as well as Incentives for technologies that fall outside of the prescriptive Rebate list (e.g. VRF systems, HVAC controls, etc.).

3) Path C: Whole-Building: The whole-building path maximizes energy savings and incentives. Properties in this path will work with pre-approved contractors to complete a comprehensive energy audit, or, in the case of new construction, a thorough review of project plans, and ultimately install multiple energy efficiency measures aimed at addressing whole building efficiency and meeting minimum scope of work requirements, as defined in the program. Projects in this path may also seek to obtain applicable certifications (e.g., ENERGY STAR). Additional conditions apply to projects in the Whole-Building path:

    a. Participants will be required to work with a pre-approved contractor.

    b. Projects will be required to demonstrate that they can meet program requirements by demonstrating savings projections through energy modeling, prior to project installation/construction.

    c. Savings, both projected and achieved, will be calculated on a whole-building basis (total combined energy for units and common areas/systems), and incentives will increase with higher savings projections.

    d. Incentives will be paid on a per residential unit (e.g., per individual apartment) basis so that the potential incentive is immediately transparent to the owner/developer.

    e. Projects participating in Path C (whole-building) may not simultaneously participate in Path A or Path B (single/multi-measure). Path C is intended to capture savings from all potential energy efficiency improvements.

4) Add-On: Optional Savings Verification: Projects going through Path C, will have the option to garner additional incentives by verifying whole-building energy savings. For existing buildings, this is accomplished by comparing weather-normalized utility bills pre-retrofit to those for the first post-retrofit year, adjusted for any impacts such as occupancy levels, to demonstrate actual project energy savings. For new construction, this is accomplished by achieving ENERGY STAR Certification through EPA's Portfolio Manager Program. This allows the program to collect verified savings, as well as demonstrate a project's persistence of savings and/or excellence in building operations. This additional incentive is only available for the first year of performance verification, but the program does encourage customers to continue measuring building performance each following year.

5) Bulk Appliance Recycling: The existing Energy Efficient Products' Appliance Recycling program will be expanded to include bulk recycling pick-up. Multifamily properties will be able to schedule no-cost pickup and responsible recycling of old, inefficient appliances. Eligible equipment includes: refrigerators, freezers, room air-conditioners, packaged terminal air-conditioners, and dehumidifiers. Being able to pick up a large volume of appliances at a single multifamily building location will offer the program cost savings while expanding program benefits to the multifamily sector.

Additional components of the Multifamily Program include the following:

- Building owners are responsible for complying with all federal, state and local applicable laws and regulations and for assuring occupant health and safety. For low-rise buildings, new construction, and any buildings participating under federal programs, specific health and safety requirements—such as mechanical ventilation— may continue to be required.
- EPA and DOE Federal Program recognition (for Path C):
    - New construction buildings participating in the multifamily program that achieve applicable program certification (i.e. ENERGY STAR, ZERH, MFHR) will continue to follow steps to meet the EPA or DOE requirements and standards to meet the proper certificate/label.
    - Existing low-rise building projects meeting all Home Performance with ENERGY STAR requirements will be counted towards national DOE's HPwES participation levels and their contractors will be eligible for consideration for EPA's Century Awards.

We will continue to analyze and consider the possibility of adding a program component that would consist of subsidized financing for the participant's share of the cost of the measures eligible for this program.

Target Market

- Multifamily buildings will be defined as having five (5) or more independent resident housing units[1] and a single owner or management entity (e.g., building owner, developer, management company, homeowners' association).
    - Applicants will be the single owner or management entity. Individual residents of multifamily buildings will be ineligible for the Multifamily Program but will be directed instead to applicable Residential Programs.
    - Residential buildings of one to four dwelling units, and townhomes designed as single-family homes will be ineligible for the Multifamily Program and will be directed to applicable Residential Programs.
- Certain types of multifamily housing, such as shelters, dormitories, independent living facilities, and other similar housing types that more resemble single-room occupancy

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(SRO) rather than multiple "dwelling units"[2] are also eligible, but with reduced incentives that are scaled to the considerably smaller living area typical of these SRO-type housing as compared to that of conventional apartments.

- Energy efficiency measures will be considered both in-unit and within associated common areas, regardless of whether there are residential and/or commercial utility accounts, so long as existing or future (for new construction) utility accounts contribute to the Societal Benefits Charge (SBC).
- Multifamily properties will no longer be eligible for incentives under Residential or Commercial programs but will instead participate in equivalent program paths within the Multifamily Program. There will be an appropriate, probably approximately three- to six-month, transition period between the old programs and the new Multifamily Program.
    - *Exceptions:* Multifamily projects interested in combined heat and power (CHP), renewable energy storage, SRECs, or other renewable energy initiatives will still be eligible for these programs. These technologies will not be integrated into the Multifamily Program at this time. Additionally, public housing meeting eligibility of the Local Government Energy Audit program (LGEA) will continue to be eligible for no-cost energy audits through that program.

Program Offerings and Incentives

The new Multifamily Program will include several program paths and associated incentive levels. Incentives will include fixed, per unit of equipment rebate amounts (Rebates) for Prescriptive technologies, as well as savings-based Incentives, such as $/kWh, $/MMBtu, or $/therm, for custom technologies, and $/multifamily unit (apartment unit) incentives for whole-building improvements. Fixed, per equipment unit rebate amounts for measures being installed at the building level will follow the existing incentive structure for C&I new construction and retrofit programs as outlined in the FY 19 Compliance Filing and reproduced here as "BUILDING LEVEL MEASURES". Fixed, per equipment unit rebate amounts for measures being installed at the dwelling unit level will follow the existing incentive structure offered as part of WARMAdvantage and COOLAdvantage and/or appliances and consumer electronics as outlined in the FY 19 Compliance Filing and reproduced here as DWELLING UNIT LEVEL MEASURES. See attachment for a detailed Incentive Structure.

BUILDING LEVEL MEASURES include equipment that serve common space and multiple independent dwelling units (2 or more) and includes such measures as chillers, boilers, and exterior pole mounted lighting. DWELLING UNIT LEVEL MEASURES include equipment that is installed to serve only an individual dwelling unit, such as all the equipment listed as part of the WARM/COOLAdvantage.

[2] 2015 NJ International Building Code definition: "Dwelling unit" a single unit providing complete, independent living facilities for one or more persons living as a single housekeeping unit, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

Program Delivery

The program will be delivered by an integrated team of NJCEP program management staff, outreach staff, and trade allies with the goal of providing the multifamily market with a streamlined, single point of entry into the program:

- NJCEP Outreach Account Managers will work to build relationships with stakeholders within the multifamily market through proactive engagement with large multifamily owners and management organizations, contractors working within the multifamily market, as well as applicable associations and membership organizations. Particular attention will be paid to affordable-rate housing, including working with NJ Housing and Mortgage Finance Agency and the utility managed Comfort Partners low-income program, to facilitate and promote participation. Trained outreach staff will identify potential participants for this program, as well as offer high-level walk-through assessments to get a sense of the potential scale of the savings opportunity, provide the owner with an understanding of the potential benefits and costs to participate, and help identify the program path most-suited to the owner's level of interest. Outreach staff will assist participants with applying for a program path (see further below), connecting them with contractors from the trade ally network, as well as facilitating introductions to program management staff where additional support is needed.
- Program Management staff will manage projects from application receipt through close out. They will work with participants and their designated contractors to ensure program compliance and successful receipt of incentives.
- The program will utilize a trade ally network of pre-approved energy services companies, contractors, raters, and builders to deliver energy efficiency improvements to the multifamily sector. These companies will be able to provide more in-depth energy analysis, including ASHRAE Level II audits, and facilitate customer program participation. Companies from the existing lists of Home Performance with ENERGY STAR contractors, Residential New Construction raters and builders, and Pay for Performance partners will have an opportunity to qualify for this trade ally network, as well as new companies that meet the necessary qualifications.

Program offerings and incentives may be subject to change pending the results of the ongoing Multifamily Baseline Study.

Section A-1: Path A - Single Measure Prescriptive Equipment Rebates

General Requirements:

- Properties can apply for a single measure at a single property, or a single measure at multiple properties, multiple measures at a single property, or multiple measures across multiple properties as best suited to meet customer needs. Program can accommodate progress payments as sites are completed. If pursuing multiple measures, please review Path B (Section A-2) to determine if project qualifies for a bonus.
- Single Measure incentives may not be applied for if project is enrolled or intends to enroll in Path C (Comprehensive/Whole Building see Section A-3).
- All rebates below may be applied for within 12 months of equipment purchase. Pre-approval of applications is available for customers seeking confirmation that their equipment is compliant with program requirements prior to equipment purchase and installation.
- Incentives are available for equipment installed to serve dwelling units, single-room occupancy (SRO) units and common areas, as well as outdoor lighting so long as the lighting is on a customer meter and customer is contributing to Societal Benefits charge through their utility bill(s).
- All equipment must be new and permanently installed (i.e. will not be removed by tenant).
- Incentives are available only for equipment purchased by the customer. A customer is defined as building owners, managers, and developers. Individual residents seeking incentives for equipment they purchased to serve their dwelling unit can apply for programs under the Residential program portfolio.
- Incentives are available for both existing buildings and new construction, except where explicitly stated otherwise. In general, equipment in new construction projects must exceed IECC 2015/ASHRAE 90.1-2013 to qualify for incentives.
- Equipment must be listed by UL or other OSHA approved Nationally Recognized Testing Laboratory (NRTL) in accordance with applicable US standards, where applicable.
- Incentives/rebates are not available for equipment that previously received incentives through other NJCEP and/or SBC funded programs.

Lighting:

- All LED lighting must be either qualified by DesignLights Consortium® (DLC®)[3] or ENERGY STAR®[4] and appear on their most current product list.
- Incentives for LED measures are available for replacements of existing HID, incandescent/halogen or fluorescent lighting only.
- All new lighting must maintain minimum light levels are required by applicable codes.

[3] www.designlights.org/QPL

[4] https://www.energystar.gov/productfinder/product/certified-light-bulbs/results; https://www.energystar.gov/productfinder/product/certified-light-fixtures/results

Lighting Controls:

- Incentives are only available for common areas.
- Incentives are only available for existing building/retrofits. New Construction will be considered if controls exceed current code requirements (evidence must be documented).
- Lighting controls are for interior spaces only and must control energy efficient lighting fixtures.
- Both wireless and hard-wired controls qualify.
- Occupancy sensors may not have manual override "ON" position.
- Incentives will be paid only for eligible daylight dimming control systems designed in accordance with IESNA practice as delineated in "IESNA Recommended Practice of Daylighting"
- There is no incentive available for occupancy sensors installed in a space where they are prohibited by state or local building or safety code.

Appliances:

- All appliances must be qualified by ENERGY STAR® and appear on their most current product list[5].

Water Heating:

- To qualify for incentive existing buildings must meet or exceed minimum piping insulation thickness for heating and hot water systems as outlined in ASHRAE 90.1-2103. New Construction must exceed these requirements.

Heating Ventilation and Air-Conditioning (HVAC):

- Efficiency requirements comply with ASHRAE 90.1-2013. New construction project equipment efficiency must exceed ASHRAE 90.1-2013 code requirements.
- Equipment capacity at AHRI Certified Net Capacity and Rating at operating conditions.
- For Split Systems, both indoor and outdoor components must be replaced/installed to qualify for an incentive.
- If more than one efficiency qualification is present (e.g.: EER & IEER), equipment specification must meet or exceed both ratings.
- Open loop Ground Source Heat Pump equipment are not eligible for incentives.
- **For existing buildings,** constant speed chillers(Path A) must meet or exceed the ASHRAE Standard 90.1-2013 IPLV efficiency to qualify for the incentive program and will receive an incentive based on meeting or exceeding the Program Incentive Minimum full load efficiency. Variable speed chillers (Path B) must meet or exceed the ASHRAE Standard 90.1-2013 full load efficiency to qualify for the program and will receive an incentive based on meeting or exceeding the Program Incentive Minimum IPLV efficiency.
- **For new construction projects,** proposed equipment must exceed minimum program

[5] https://www.energystar.gov/products/appliances

efficiency requirements for Path A (constant speed) IPLV and Path B (variable speed) Full Load.

- Units are eligible for the Base $/ton incentive by meeting both the incentive program minimum and qualifying efficiency levels listed in the table below. for Path A (constant speed chillers) or Path B (variable speed chillers). An additional $/ton Performance incentive applies for each 0.1 EER above the Incentive Minimum EER or for each 0.01 kW/ton below the Incentive Minimum kW/ton
- All capacities are at AHRI conditions.
- Chiller full and part-load efficiencies are determined in accordance with AHRI Standard 550/590/2003.
- Chillers > 400 tons must be two-stage in order to qualify.
- Regenerative Desiccant Units are eligible when matched with core gas or electric cooling equipment.
- A/C Economizing Controls: Incentive is offered for fuel use economizers that control consumption for the A/C unit by optimizing compressor cycles. This incentive is not intended for air-side economizers.
- Incentive is available for both retrofits and new units without a current economizing control installed.

Variable Frequency Drives:

- Eligible VFD applications include: Constant Volume HVAC systems, VAV HVAC systems (new VFDs only), Cooling Tower Fan, Chilled Water Pump, Boiler Feedwater Pump, Boiler Fan Motor, Air-Compressors, and Kitchen Hood.
- The controlled horsepower (HP) is the cumulative motor HP controlled by each VFD.
- If the controlled HP falls in between sizes listed in the incentive table, the incentive will be based on the lower HP listed.
- For all VFD measures except air compressors, the maximum controlled size threshold is 50 HP.

UNIT LEVEL REBATES [6]

Equipment	Minimum Efficiency	FY19 Incentive Amount
Central A/C- Tier 1	SEER ≥ 16 EER ≥ 13	$300
Central A/C- Tier 2	SEER ≥ 18 EER ≥ 13	$500
Central Air Source Heat Pump – Tier 1	SEER ≥ 16 EER ≥ 13 & HSPF ≥ 10	$300
Central Air Source Heat Pump – Tier 2	SEER ≥ 18 EER ≥ 13 & HSPF ≥ 10	$500
Mini-Split A/C:	SEER ≥ 20 EER ≥ 12.5	$500
Mini-Split Heat Pump:	SEER ≥ 20 EER ≥ 12.5 & HSPF ≥ 10	$500
Gas Furnace – Tier 1	≥ 95% AFUE	$250
Gas Furnace – Tier 2	≥ 97% AFUE	$500
Oil Furnace	≥ 85% AFUE	$250
Gas Boiler	≥ 90% AFUE	$300
Boiler & DHW Combination	Qualifying Boiler (see Minimum Efficiency for Boilers noted above) and water heating as noted below: • Integrated water heating and boiler unit (Combi Boilers) • OR a qualifying standalone water heater (see Minimum Efficiency for water heaters below) OR an indirect water heater attached to the qualifying boiler	$700
Gas Storage Tank Water Heater, power vented	≤55 gallons 0.64 Uniform Energy Factor (UEF) >55 gallons 0.85 UEF	$300
Gas Tankless On-demand Water Heater	<2 gallons 081 UEF	$300
Heat Pump Water Heater	2.0 UEF	$500

[6] From AHRI directory, AHRI directory or equivalent ENERGY STAR listing.

APPLIANCE REBATES

Equipment	Incentive Tiers	Performance Criteria7	FY19 Rebate
Clothes Washer	Tier 1 (Aligned with ENERGY STAR V8.0)	Front Load - IMEF ≥ 2.75, IWF ≤ 3.7 Top Load - IMEF ≥ 2.06, IWF ≤ 4.3	$50
	Tier 2 (Aligned with CEE Tier 2)	IMEF ≥ 2.92, IWF ≤ 3.2	$75
Clothes Dryer	Tier 1 (Aligned with ENERGY STAR V1.1 Gas)	CEF ≥ 3.48	$100
	Tier 1 (Aligned with ENERGY STAR V1.1 Electric)	CEF ≥ 3.93	
	Tier 2 (Aligned with ENERGY STAR Most Efficient)	CEF ≥ 4.30 for Standard Electric	$300
		CEF ≥ 3.80 for Gas	
Refrigerator	Tier 1 (Aligned with ENERGY STAR V5.0 =>7.75 cu ft.)	Baseline ENERGY STAR	$50
	Tier 2 (Aligned with CEE Tier 2 =>7.75 cu ft.)	15% over the measured Federal Minimum Efficiency Standard	$75

[7] Subject to change based on ENERGY STAR and CEE specifications

BUILDING LEVEL REBATES

Table 1: Lighting Incentives

Technology Classification	Incentive Amount
LED Lamp (Integral/Screw-In)	Up to $1/lamp for all ENERGY STAR lamps
LED 4-Pin-G24q-and GX24q-base Lamp	Up to $5 per lamp when replacing a 4-Pin CFL with a 4-Pin LED
LED Refrigerated Case Lighting	Up to $30 per 4' LED Fixture Up to $42 per 5' LED fixture Up to $65 per 6' LED fixture
LED Display Case Lighting	Up to $30 per display case
LED Shelf-mounted display and task lights	Up to $15 per foot
LED Portable Desk Lamps	Up to $5 per fixture
LED Wall-wash Lights	Up to $30 per fixture
LED Stairwell and Passageway Luminaires	Up to $40 per fixture
LED Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	Up to $100 per fixture; new and retrofit
LED Outdoor Pole/Arm-Mounted Decorative Luminaires	Up to $50 per fixture; new and retrofit
LED Outdoor Wall-Mounted Area Luminaires	Up to $100 per fixture
LED Parking Garage Luminaires	Up to $100 per fixture
LED Track or Mono-point Directional Lighting Fixtures	Up to $30 per fixture
Large Outdoor Pole/Arm-Mounted Area and Roadway Retrofit	Up to $150 per fixture
LED high-bay and Low-bay fixtures for C&I Buildings	Incentive based on new LED fixture wattage ≤125W: Up to $50 per fixture >125W to ≤250W: Up to $75 per fixture >250W: Up to $150 per fixture

LED High-bay Aisle Lighting	Incentive based on new LED fixture wattage ≤125W: Up to $50 per fixture >125W to ≤250W: Up to $75 per fixture >250W: Up to $150 per fixture
LED Mogul (E39) Screw-Base Replacements for HID Lamps	Incentive based on new LED lamp wattage ≤125W: Up to $50 per lamp >125W to ≤250W: Up to $75 per lamp >250W: Up to $150 per lamp
LED Bollard Fixtures	Up to $50 per fixture
LED Linear Panels (Luminaires for Ambient Lighting of Interior Spaces)	Up to $15 per fixture for 1x4, 2x2 (new and retrofit) Up to $25 per fixture for 2x4 (new and retrofit)
LED Fuel Pump Canopy	Up to $100 per fixture
LED Architectural Flood and Spot Luminaries	Up to $50 per fixture
LED Linear Ambient Luminaires (Indirect, Indirect/Direct, Direct/Indirect, Direct)	Up to $20 per 2’ fixture Up to $30 per 3’ fixture Up to $45 per 4’ fixture Up to $60 per 6’ fixture Up to $75 per 8’ fixture
Retrofit Kit for LED Linear Ambient Luminaires (Indirect, Indirect/Direct, Direct/Indirect, Direct)	Up to $15 per 2’ fixture Up to $15 per 4’ fixture Up to $25 per 8’ fixture
LED Linear Lamps	Up to $3 per 2’ lamp Up to $5 per 3’, 4’ linear and U-bend lamp Up to $10 per 8’ lamp
LED Bath Vanity	Up to $5/fixture
LED Cove Mount	Up to $5/fixture
LED Decorative Candle: Other	Up to $5/fixture
LED Decorative: Other	Up to $5/fixture

LED Downlight Pendant	Up to $5/fixture
LED Bath Vanity	Up to $5/fixture
LED Downlight Solid State Retrofit	Up to $5/fixture
LED Downlight Surface Mount	Up to $5/fixture
LED ENERGY STAR: Other	Up to $5/fixture
LED Outdoor Porch Wall Mount	Up to $5/fixture
LED ENERGY STAR Outdoor Post-Mount	Up to $5/fixture
LED Porch (wall mounted)	Up to $5/fixture
LED Torchiere	Up to $5/fixture
LED Ceiling Mount	Up to $5/fixture
LED Close to Ceiling Mount	Up to $5/fixture
LED Decorative Pendant	Up to $5/fixture
LED Inseparable SSL - Other	Up to $5/fixture
LED ENERGY STAR Security	Up to $5/fixture
LED ENERGY STAR Wall Sconces	Up to $5/fixture
LED Wrapped Lens	Up to $5/fixture
LED categories and products qualified by ENERGY STAR or Design Lights Consortium not identified above as prescriptive will be considered for incentives through the Path B - Custom.	

Table 2: Lighting Controls Incentives

Technology Classification	FY19 Incentive
Lighting Controls	Wireless and Hard-Wired Only
Occupancy Sensors (e.g., ceiling) Wall Mounted Remote Mounted	 Up to $20 per control Up to $35 per control
Day Lighting Dimmers – All facilities	For both fluorescent fixtures, HID or Fluorescent Hi-Bay, and LED controls - $45 per fixture controlled.

Fluorescent, HID or LED Fixtures	New construction projects not eligible unless exceeding code requirement under ASHRAE 90.1-2013
Hi-Low Controls - All facilities: Fluorescent, HID or LED Fixtures	For all Hi-Low Controls, $35 per fixture controlled New construction projects not eligible unless exceeding code requirement under ASHRAE 90.1-2013
Advanced Lighting Control Systems (ALCS)	Incentives will be provided through Path B – Multi-Measure and Custom. To be eligible, ALCS must be listed on the current Design Lights Consortium qualified products list.

Table 3:Chiller Incentives

Electric Chillers: FY19 Electric Chiller Efficiency and Incentive Structure

Note A - 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 90.1-2013, 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.

Constant speed chillers will have to meet or exceed IPLV efficiency to qualify for the incentive program while the incentive will be based on the chillers performance relative to the full load efficiency. Conversely, variable speed chillers will have to meet or exceed the full load efficiency to qualify for the incentive program while the incentive will be based on the chillers performance relative to the IPLV efficiency.

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.

Capacity	Path A		Path B		Path A		Path B	
	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					10.30	13.70	9.70	16.12
tons > 150					10.30	14.00	9.70	16.42
Water Cooled Positive Displacement								
tons < 75	0.735	0.600	0.780	0.490				
75 < tons <	0.706	0.560	0.750	0.480				
150 < tons <	0.647	0.540	0.680	0.431				

300 < tons <	0.598	0.520	0.625	0.402	
tons > 600	0.549	0.500	0.585	0.372	
Water Cooled Centrifugal					
tons < 150	0.598	0.550	0.695	0.431	
150 < tons <	0.598	0.550	0.635	0.392	
300 < tons <	0.549	0.520	0.595	0.382	
400 < tons <	0.549	0.500	0.585	0.372	
tons ≥ 600	0.549	0.500	0.585	0.372	

		Existing Building				***New Construction***			
		Constant Speed		Variable Speed		Constant Speed		Variable Speed	
Type	Capacity	Base $/ton	Perf $/ton	Base $/ton	Perf $/ton	Base $/ton	Perf $/ton	Base $/ton	Perf $/ton
AC	tons < 150	$20.00	$3.50	$90.00	$4.00	$10.00	$3.50	$45.00	$4.00
AC	tons ≥ 150	$20.00	$2.75	$92.00	$4.00	$10.00	$2.75	$46.00	$4.00
WC positive disp	tons < 75	$13.00	$2.25	$40.00	$2.50	$6.50	$2.25	$20.00	$2.50
WC positive disp	75 ≤ tons < 150	$20.00	$2.00	$43.00	$2.00	$10.00	$2.00	$21.50	$2.00
WC positive disp	150 ≤ tons < 300	$17.00	$2.00	$43.00	$2.00	$8.50	$2.00	$21.50	$2.00
WC positive disp	300 ≤ tons < 600	$15.00	$2.25	$37.00	$2.00	$7.50	$2.25	$18.50	$2.00
WC positive disp	tons ≥ 600	$30.00	$2.00	$44.00	$2.00	$15.00	$2.00	$22.00	$2.00
WC centrifugal	tons < 150	$24.00	$2.25	***$24.00***	***$2.75***	$12.00	$2.25	$12.00	$2.75
WC centrifugal	150 ≤ tons < 300	$10.00	$2.00	$30.00	$2.50	$5.00	$2.00	$15.00	$2.50
WC centrifugal	300 ≤ tons < 400	$8.00	$2.00	$20.00	$2.00	$4.00	$2.00	$10.00	$2.00
WC centrifugal	400 ≤ tons < 600	$8.00	$2.00	$25.00	$2.00	$4.00	$2.00	$12.50	$2.00
WC centrifugal	tons ≥ 600	$8.00	$2.00	$25.00	$2.00	$4.00	$2.00	$12.50	$2.00

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.

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.

For new construction projects operating under ASHRAE 90.1-2013 code, proposed equipment must exceed minimum program efficiency requirements for Path A (constant speed) IPLV and Path B (variable speed) Full Load.

Technology Classification	FY19 Incentive
Water Cooled Chillers	Incentive table reflects New Construction and Existing Buildings separately shown above.
Air Cooled Chillers	Incentive table reflects New Construction and Existing Buildings separately shown above.
Natural Gas Chillers: For gas chillers, full load efficiencies are determined in accordance with A.H.R.I. 560, however, part load efficiencies are not rated.	
Gas Absorption Chillers	≥1.1 full load or part load Coefficient of Performance (COP)
< 100 tons	Up to $450 per ton

100 to 400 tons	Up to $230 per ton
> 400 tons	Up to $185 per ton
Gas Engine Driven Chillers	Treated under Path B: Multi-Measure / Custom (≥1.1 full or part load COP)
Desiccant Systems	Up to $1.00 per cfm (gas or electric)

Table 4: Electric HVAC Incentives

Technology Classification	FY19 Incentive
HVAC Systems:	Please refer to tables below for HVAC minimum efficiency standards and incentives

SmartStart Equipment Type	Cooling Capacity tons	Incentive Tier	Existing Building and New Construction Minimum Qualifying Efficiency SEER	HSPF	EER	IEER	COP	Incentive $/ton
Unitary HVAC Split System	< 5.4	1	14.0					$92
Unitary HVAC Split System	< 5.4	2	16.0					$105
Unitary HVAC Single Package	< 5.4	1	14.3					$92
Unitary HVAC Single Package	< 5.4	2	16.0					$103
Unitary HVAC Single Package or	≥ 5.4 and < 11.25	1			11.5	13.0		$73
Unitary HVAC Single Package or	≥ 5.4 and < 11.25	2			12.5	14.0		$79
Unitary HVAC Single Package or	≥ 11.25 and < 20	1			11.5	12.4		$79
Unitary HVAC Single Package or	≥ 11.25 and < 20	2			12.0	14.0		$89
Central DX AC	≥ 20 and < 63	1			10.5	11.6		$79
Central DX AC	≥ 20 and < 63	2			11.0	12.5		$85
Central DX AC	≥ 63	1			9.7	11.2		$72
Central DX AC	≥ 63	2			10.0	12.0		$77
Air Source HP Split System	< 5.4	1	14.3	8.4				$92
Air Source HP Split System	< 5.4	2	15.5	8.5				$100
Air Source HP Single Package	< 5.4	1	14.3	8.2				$92
Air Source HP Single Package	< 5.4	2	15.5	8.5				$100
Air Source HP Single Package or	≥ 5.4 and < 11.25	1			11.5	12.2	3.4	$73
Air Source HP Single Package or	≥ 5.4 and < 11.25	2			12.1	12.8	3.5	$77
Air Source HP Single Package or	≥ 11.25 and < 20	1			11.5	11.6	3.3	$79
Air Source HP Single Package or	≥ 11.25 and < 20	2			11.7	15.0	3.3	$82
Air Source HP Single Package or	≥ 20	1			9.5	10.5	3.2	$79
Air Source HP Single Package or	> 20	2			9.7	12.0	3.2	$82

SmartStart Equipment Type	Cooling Capacity Btu/hr	Incentive Tier	Existing Building			New Construction		
			Minimum Qualifying Efficiency		Incentive $/ton	Minimum Qualifying Efficiency		Incentive $/ton
			EER	COP		EER	COP	
PTAC	< 7,000	1	12.0		$40	12.0		$20
PTAC	≥ 7,000	1	12.0		$40	12.0		$20
PTAC	≥ 8,000	1	11.7		$40	11.7		$20
PTAC	≥ 9,000	1	11.4		$40	11.4		$20
PTAC	≥ 10,000	1	11.1		$40	11.1		$20
PTAC	≥ 11,000	1	10.8		$40	10.8		$20
PTAC	≥ 12,000	1	10.5		$40	10.5		$20
PTAC	≥ 13,000	1	10.2		$40	10.2		$20
PTAC	≥ 14,000	1	9.9		$40	9.9		$20
PTAC	≥ 15,000	1	9.6		$40	9.6		$20
PTHP	< 7,000	1	12.0	3.4	$40	12.0	3.4	$20
PTHP	≥ 7,000	1	12.0	3.4	$40	12.0	3.4	$20
PTHP	≥ 8,000	1	11.7	3.3	$40	11.7	3.3	$20
PTHP	≥ 9,000	1	11.4	3.3	$40	11.4	3.3	$20
PTHP	≥ 10,000	1	11.1	3.2	$40	11.1	3.2	$20
PTHP	≥ 11,000	1	10.8	3.2	$40	10.8	3.2	$20
PTHP	≥ 12,000	1	10.5	3.1	$40	10.5	3.1	$20
PTHP	≥ 13,000	1	10.2	3.1	$40	10.2	3.1	$20
PTHP	≥ 14,000	1	9.9	3.0	$40	9.9	3.0	$20
PTHP	≥ 15,000	1	9.6	3.0	$40	9.6	3.0	$20

SmartStart Equipment Type	Cooling Capacity tons	Incentive Tier	Existing Building			New Construction		
			Minimum Qualifying Efficiency		Incentive $/ton	Minimum Qualifying Efficiency		Incentive $/ton
			EER	COP		EER	COP	
Water Source Heat Pump	< 1.4	1	12.4	4.3	$40	12.4	4.3	$20
Water Source Heat Pump	< 1.4	2	14.0	4.8	$45	14.0	4.8	$23
Water Source Heat Pump	≥ 1.4 and < 5.4	1	13.3	4.3	$60	13.3	4.3	$30
Water Source Heat Pump	≥ 1.4 and < 5.4	2	15.0	4.5	$68	15.0	4.5	$34
Water Source Heat Pump	≥ 5.4 and < 11.25	1	13.3	4.3	$80	13.3	4.3	$40
Water Source Heat Pump	≥ 5.4 and < 11.25	2	15.0	4.5	$90	15.0	4.5	$45
SPVAC	< 5.4	1	10.2		$45	10.2		$10
SPVAC	< 5.4	2	10.7		$47	10.7		$12
SPVAC	≥ 5.4 and < 11.25	1	10.2		$45	10.2		$10
SPVAC	≥ 5.4 and < 11.25	2	10.7		$47	10.7		$12
SPVAC	≥ 11.25 and < 20	1	10.2		$45	10.2		$10
SPVAC	≥ 11.25 and < 20	2	10.7		$47	10.7		$12
SPVHP	< 5.4	1	10.2	3.1	$45	10.2	3.1	$10
SPVHP	< 5.4	2	10.7	3.2	$47	10.7	3.2	$12
SPVHP	≥ 5.4 and < 11.25	1	10.2	3.1	$45	10.2	3.1	$10
SPVHP	≥ 5.4 and < 11.25	2	10.7	3.2	$47	10.7	3.2	$12
SPVHP	≥ 11.25 and < 20	1	10.2	3.1	$45	10.2	3.1	$10
SPVHP	≥ 11.25 and < 20	2	10.7	3.2	$47	10.7	3.2	$12

SmartStart Equipment Type	Cooling Capacity tons	Incentive Tier	Existing Building			New Construction		
			Minimum Qualifying Efficiency		Incentive $/ton	Minimum Qualifying Efficiency		Incentive $/ton
			EER	COP		EER	COP	
Groundwater Source Heat Pump	< 11.25	1	18.4	3.7	$80	18.4	3.7	$40
Groundwater Source Heat Pump	< 11.25	2	22.0	3.9	$96	22.0	3.9	$48
Ground Source Heat Pump	< 11.25	1	14.4	3.2	$80	14.4	3.2	$40
Ground Source Heat Pump	< 11.25	2	18.0	3.6	$100	18.0	3.6	$50

Occupancy Controlled Thermostats for Hospitality / Institutional Facilities	Up to $75/per occupancy-controlled thermostat
A/C Economizing Control	≤5 tons - $85 >5 tons - $170

Table 5:Gas HVAC Incentives

<table>
<tr><th>Technology Classification</th><th>FY19 Incentive</th></tr>
<tr><td colspan="2">Gas Fired Boilers: FY19 Efficiency Levels
<table>
<tr><th>Boiler Type</th><th>Size Category (MBh input)</th><th>Non-Condensing</th><th>Condensing Tier 1</th><th>Condensing Tier 2</th></tr>
<tr><td>Hot Water</td><td>< 300</td><td>85% AFUE</td><td>88% AFUE</td><td>93% AFUE</td></tr>
<tr><td>Hot Water</td><td>≥ 300 and ≤ 2,500</td><td>85% Et</td><td>88% Et</td><td>91% Et</td></tr>
<tr><td>Hot Water</td><td>> 2,500</td><td>85% Ec</td><td>88% Ec</td><td>93% Ec</td></tr>
<tr><td>Steam</td><td>< 300</td><td>82% AFUE</td><td>NA</td><td>NA</td></tr>
<tr><td>Steam, all except natural draft</td><td>≥ 300 and ≤ 2,500</td><td>81% Et</td><td>NA</td><td>NA</td></tr>
<tr><td>Steam, all except natural draft</td><td>> 2,500</td><td>81% Et</td><td>NA</td><td>NA</td></tr>
<tr><td>Steam, natural draft</td><td>≥ 300 and ≤ 2,500</td><td>79% Et</td><td>NA</td><td>NA</td></tr>
<tr><td>Steam, natural draft</td><td>> 2,500</td><td>79% Et</td><td>NA</td><td>NA</td></tr>
</table></td></tr>
<tr><td>< 300 MBH</td><td>Hot Water Non-Condensing - $0.95/MBH; Min $400
Hot Water Condensing – Tier 1 - $1.35/MBH, Tier 2 - $2.00/MBH ; Min $1,000
Steam Natural Draft - $1.40/MBH; Min $300
Steam Power Ventilation - $1.40/MBH; Min $400
Efficiency level defined by above table</td></tr>
</table>

≥300 MBH - 1500 MBH	Hot Water Non-Condensing - $1.75/MBH Hot Water Condensing – Tier 1 - $2.00/MBH, Tier 2 - $2.20/MBH ; Min $1,000 Steam Natural Draft - $1.00/MBH Steam Power Ventilation - $1.20/MBH Efficiency level defined by above table

Technology Classification	FY19 Incentive
> 1500 MBH - 2500 MBH	Hot Water Non-Condensing - $1.50/MBH Hot Water Condensing – Tier 1 $1.85/MBH, Tier 2 - $2.20/MBH Steam Natural Draft - $0.90/MBH Steam Power Ventilation - $1.20/MBH Efficiency level defined by above table
> 2500 MBH – 4000 MBH	Hot Water Non-Condensing - $1.30/MBH Hot Water Condensing – Tier 1 - $1.55, Tier 2 - $2.00/MBH Steam Natural Draft - $0.70/MBH Steam Power Ventilation - $1.00/MBH Efficiency level defined by above table
> 4000 MBH	Treated under Custom Measure Path
Boiler Economizer Controls	BTU - Incentive ≤800,000 - $1,200 >800,000 - <1.6mil - $1,500 ≥1.6mil - <3mil- $1,800 ≥3mil - <3.5mil - $2,100 ≥3.5mil - <4mil - $2,400 ≥4mil - $2,700
Gas Furnaces	
AFUE to ≥ 95% ≥ 2.0% Fan Efficiency, ENERGY STAR qualified	Incentive up to $400 per furnace
Gas Infrared Heating	Low Intensity Infrared Heater with Reflectors ≤100,000 btu/hr. - $500 per unit >100,000 btu/hr. - $300 per unit Indoor Only

Table 6: Gas Water Heating Incentives

<table>
<tr><th>Technology Classification</th><th>FY19 Incentive</th></tr>
<tr><td>Gas Fired Water Heating:</td><td>
<table>
<tr><th>Gas Water Heater Type and Capacity</th><th></th><th>Minimum Efficiency</th><th>Incentive Rate</th></tr>
<tr><td rowspan="6">Gas-fired, Storage</td><td rowspan="2">≤ 75,000 Btu/h
(consumer)</td><td>≥ 0.67 EF or ≥ 0.64 UEF</td><td>$1.75/MBH</td></tr>
<tr><td>≥ 0.87 EF or ≥ 0.81 UEF</td><td>$3.50/MBH</td></tr>
<tr><td rowspan="2">>75,000 Btu/h and
≤ 105,000 Btu/h
(residential duty commercial)</td><td>≥ 82% Et or ≥ 0.64 UEF</td><td>$1.75/MBH</td></tr>
<tr><td>≥ 90% Et or ≥ 0.85 UEF</td><td>$3.50/MBH</td></tr>
<tr><td rowspan="2">>105,000 Btu/h
(commercial)</td><td>≥ 82% Et</td><td>$1.75/MBH</td></tr>
<tr><td>≥ 92% Et</td><td>$3.50/MBH</td></tr>
<tr><td rowspan="2">Gas-fired, instant (tankless)</td><td>< 200,000 Btu/h
(consumer)</td><td>≥ 90% Et or ≥ 0.82 EF or ≥ 0.81 UEF</td><td>$300/tankless water heater</td></tr>
<tr><td>≥ 200,000 Btu/h
(commercial)</td><td>≥ 90% Et</td><td>$300/tankless water heater</td></tr>
</table>
</td></tr>
<tr><td colspan="2">Gas Fired Water Booster Heaters:</td></tr>
<tr><td>≤ 100 MBH</td><td>Up to $17 per MBH</td></tr>
<tr><td>> 100 MBH</td><td>Up to $35 per MBH</td></tr>
</table>

Table 7: Variable Frequency Drives

Variable Frequency Drives			
VAV - Variable Air Volume HVAC System:	5 HP ≤ 50 HP	Motor Size (HP)	Incentive ($)
CV - Constant Volume HVAC System:	0.5 HP ≤ 50 HP	0.5	$50
T - Cooling Tower:	10 HP ≤ 50 HP	1	$75
P - Chilled Water Pump:	20 HP ≤ 50 HP	2	$100
A - Air Compressor:	25 HP ≤ 200 HP	3	$200
BP - Boiler Feed Water Pump:	5 HP ≤ 50 HP	4	$300
BF - Boiler Fan Motor:	5 HP ≤ 50 HP	5	$900
K- Kitchen Hood:	0.5 HP ≤ 50 HP	7.5	$1,000
• Controlled HP is the cumulative motor HP controlled by each VFD.		10	$1,100
• Controlled HP less than the listed eligible values are ineligible for incentives.		15	$1,200
• Controlled HP more than the listed eligible values should use the C&I Custom program.		20	$1,300
• 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.		25	$1,400
• 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.		30	$1,500
		40	$2,500
• 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.		50	$3,000
		60	$3,500
		75	$4,000
		100	$5,000
		200	$7,000

Table 8: Premium Efficiency Motors

Technology Classification	FY19 Incentive
Premium Efficiency Motors:	
Fractional (< 1 HP) Electronic Commutated Motors (ECM)	Up to $40 per ECM for replacement of existing shaded-pole motor in refrigerated/freezer cases New construction projects not eligible.

Table 9: Food Service Incentives

Technology Classification	FY19 Incentive
Refrigeration Controls:	
Door Heater Control	$50 per control
Electric Defrost Control	$50 per control
Novelty Cooler Shutoff	$50 per control
Evaporator Fan Control	$75 per control
Refrigeration Doors/Covers:	
Energy-Efficient Doors for open Refrigerated Doors/Covers	$100 per door
Aluminum Night Curtains for Open Refrigerated Cases	$3.50 per linear foot
Commercial Dishwashers: Equipment must be qualified by the current version* of ENERGY STAR or CEEP[8]	
Under Counter	$400 per unit
Door Type	$700 per unit
Single Tank Conveyor	$1,000 per unit
Multiple Tank Conveyor	$1,500 per unit

[8] Version in place at time of application submittal.

Commercial Combination Oven/Steamer (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.

- ASTM Criteria:
  - Must meet the idle energy rate requirements in the Electric Combination Oven/Steamer Table, utilizing American Society for Testing and Materials (ASTM) F2861.
  - Must have a cooking energy efficiency of 50 percent or greater in steam mode and 70 percent cooking energy efficiency or greater in convection mode, utilizing (ASTM) F2861.
  - 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.

Pan Capacity	
Less than 15 pans 15-28 pans Greater than 28 pans	$1,000 per oven

Commercial Combination Oven/Steamer (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.

- ASTM Criteria:
  - Must have a cooking energy efficiency of 38 percent or greater in steam mode and 44 percent or greater in convection mode, utilizing ASTM F2861.
  - Must meet the idle energy rate requirements in the Gas Commercial Combination Oven/Steamer Table, utilizing ASTM F2861.
  - 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.

Pan Capacity	
Less than 15 pans 15-28 pans Greater than 28 pans	$750 per oven

<table>
<tr><td colspan="2">Commercial Convection Oven (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.
ASTM Criteria:
Must have a tested heavy load (potato) cooking energy efficiency of 70 percent or more, utilizing ASTM F1496.
Full-size electric ovens must have a tested idle energy rate of 1.6 kW or less, utilizing ASTM F1496.
Half-size electric ovens must have a tested idle energy rate of 1.0 kW or less, utilizing ASTM F1496.</td></tr>
<tr><td>Commercial Convection Oven (Electric)</td><td>$350 per oven</td></tr>
<tr><td colspan="2">Commercial Convection Oven (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.
ASTM Criteria:
Must have a tested heavy load (potato) cooking energy efficiency of 44 percent or greater and an idle energy rate of 13,000 Btu/h or less, utilizing ASTM F1496.</td></tr>
<tr><td>Commercial Convection Oven (Gas)</td><td>$500 per oven</td></tr>
<tr><td colspan="2">Commercial Rack Oven (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.
ASTM Criteria:
Must have a tested baking energy efficiency of 50 percent or greater, utilizing ASTM F2093.</td></tr>
<tr><td>Commercial Rack Oven Single (Gas)
Commercial Rack Oven Double (Gas)</td><td>$1,000 per single oven
$2,000 per double oven</td></tr>
</table>

Commercial Conveyor Oven (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.

- ASTM Criteria:
  - Must have a tested baking energy efficiency of 42 percent or greater, utilizing ASTM F1817.
  - Small conveyor ovens with total conveyor width 25 inches or less must have a tested idle energy rate that is 29,000 Btu/h or less, utilizing ASTM F1817.
  - Large conveyor ovens with total conveyor width greater than 25 inches must have a tested idle energy rate that is 57,000 Btu/h or less, utilizing ASTM F1817.
  - Multiple-deck oven configurations are paid per qualifying oven deck.

Commercial Conveyor Oven – Small (Conveyor width 25in. or less, Gas)	$500 per deck
Commercial Conveyor Oven – Large (Conveyor width greater than 25in., Gas)	$750 per deck

Commercial Fryer (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.

- ASTM Criteria:
  - Must have a tested heavy load cooking energy efficiency of 80 percent or greater and an idle energy rate of 1.0 kW or less, utilizing ASTM F1361.
  - Multiple vat configurations are paid per qualifying vat.

Commercial Fryer (Electric)	$200 per vat

Commercial Fryer (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.

- ASTM Criteria:
  - 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.
  - Multiple vat configurations are paid per qualifying vat.

Commercial Fryer (Gas)	$749 per vat

<table>
<tr><td colspan="2">Commercial Large Vat Fryer (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.
ASTM Criteria:
Must have a tested heavy load (French fry) cooking energy efficiency of 80 percent or greater, utilizing ASTM F2144.
Multiple vat configurations are paid per qualifying vat.</td></tr>
<tr><td>Commercial Large Vat Fryer (Electric)</td><td>$200 per vat</td></tr>
<tr><td colspan="2">Commercial Large Vat Fryer (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.
ASTM Criteria:
Must have a tested heavy load (French fry) cooking energy efficiency of 50 percent or greater, utilizing ASTM F2144.
Multiple vat configurations are paid per qualifying vat.</td></tr>
<tr><td>Commercial Large Vat Fryer (Gas)</td><td>$500 per vat</td></tr>
<tr><td colspan="2">Commercial Griddle (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.
ASTM Criteria:
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.</td></tr>
<tr><td>Commercial Griddle (Electric)</td><td>$300 per griddle</td></tr>
<tr><td colspan="2">Commercial Griddle (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.
ASTM Criteria:
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.</td></tr>
<tr><td>Commercial Griddle (Gas)</td><td>$125 per griddle</td></tr>
</table>

Commercial Steam Cooker (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below. o ASTM Criteria: o Must have a tested heavy load (potato) cooking energy efficiency of 50 percent or greater, utilizing ASTM F1484.	
Commercial Steam Cooker (Electric)	$1,250 per steamer
Commercial Steam Cooker (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below. o ASTM Criteria: o Must have a tested heavy load (potato) cooking energy efficiency of 38 percent or greater, utilizing ASTM F1484.	
Commercial Steam Cooker (Gas)	$2,000 per steamer
Insulated Holding Cabinets: o Must meet CEE Tier II specification. o Does not include cook and hold equipment. o All measures must be electric hot food holding cabinets that are fully insulated and have solid doors.	
Insulated Holding Cabinet, Full Size	$300 per unit
Insulated Holding Cabinet, ¾ Size	$250 per unit
Insulated Holding Cabinets, ½ Size	$200 per unit

Table 10: Refrigeration Incentives

Commercial Glass Door Refrigerators: o The refrigeration system must be built-in (packaged). o Cases with remote refrigeration systems do not qualify. o Must meet ENERGY STAR Version 2.0 specification.	
ENERGY STAR Glass Door Refrigerators – Internal volume <15 ft^3	$75 per unit
ENERGY STAR Glass Door Refrigerators – Internal volume 15 ft^3–29.9 ft^3	$100 per unit
ENERGY STAR Glass Door Refrigerators – Internal volume 30 ft^3–49.9 ft^3	$125 per unit
ENERGY STAR Glass Door Refrigerators – Internal volume ≥ 50 ft^3	$150 per unit
Commercial Solid Door Refrigerators: o The refrigeration system must be built-in (packaged). o Cases with remote refrigeration systems do not qualify. o ENERGY STAR specification Version 1.0 refrigerators do not qualify. o Must meet ENERGY STAR Version 2.0 specification.	
ENERGY STAR Solid Door Refrigerators – Internal volume <15 ft^3	$50 per unit
ENERGY STAR Solid Door Refrigerators – Internal volume 15 ft^3–29.9 ft^3	$75 per unit
ENERGY STAR Solid Door Refrigerators – Internal volume 30 ft^3–49.9 ft^3	$125 per unit
ENERGY STAR Solid Door Refrigerators – Internal volume ≥ 50 ft^3	$200 per unit
Commercial Glass Door Freezers: o The refrigeration system must be built-in (packaged). o Cases with remote refrigeration systems do not qualify. o Must meet ENERGY STAR Version 2.0 specification.	

ENERGY STAR Glass Door Freezers – Internal volume <15 ft^3	$200 per unit
ENERGY STAR Glass Door Freezers – Internal volume 15 ft^3–29.9 ft^3	$250 per unit
ENERGY STAR Glass Door Freezers – Internal volume 30 ft^3–49.9 ft^3	$500 per unit
ENERGY STAR Glass Door Freezers – Internal volume ≥ 50 ft^3	$1,000 per unit
Commercial Solid Door Freezers: o The refrigeration system must be built-in (packaged). o Cases with remote refrigeration systems do not qualify. o ENERGY STAR specification Version 1.0 freezers do not qualify. o Must meet ENERGY STAR Version 2.0 specification.	
ENERGY STAR Solid Door Freezers – Internal volume <15 ft^3	$100 per unit
ENERGY STAR Solid Door Freezers – Internal volume 15 ft^3–29.9 ft^3	$150 per unit
ENERGY STAR Solid Door Freezers – Internal volume 30 ft^3–49.9 ft^3	$300 per unit
ENERGY STAR Solid Door Freezers – Internal volume ≥ 50 ft^3	$600 per unit
Commercial Ice Machines: o Ice machines must be tested in accordance with the Air Conditioning and Refrigeration Institute (ARI) Standard 810. o Includes machines generating ice cubes that are 60 grams (2 oz.) or lighter. It also includes flaked, crushed and fragmented ice makers. o Only air-cooled machines (self-contained, ice making heads, or remote condensing) qualify. o The entire ARI tested ice making system must be purchased. o Remote machines must be purchased with qualifying remote condenser or remote condenser/compressor unit. o The efficiency specifications for the two qualifying tiers are equivalent to ENERGY STAR or Super-Efficient.	
ENERGY STAR Ice Machine (101–200 lbs./day)	$50 per unit
ENERGY STAR Ice Machine (201–300 lbs./day)	$50 per unit
ENERGY STAR Ice Machine (301–400 lbs./day)	$75 per unit
ENERGY STAR Ice Machine (401–500 lbs./day)	$75 per unit
ENERGY STAR Ice Machine (501–1000 lbs./day)	$125 per unit

ENERGY STAR Ice Machine (1001–1500 lbs./day)	$200 per unit
ENERGY STAR Ice Machine (greater than 1500 lbs./day)	$250 per unit
Super-Efficient Ice Machine (101–200 lbs./day)	$100 per unit
Super-Efficient Ice Machine (201–300 lbs./day)	$100 per unit
Super-Efficient Ice Machine (301–400 lbs./day)	$150 per unit
Super-Efficient Ice Machine (401–500 lbs./day)	$150 per unit
Super-Efficient Ice Machine (501–1000 lbs./day)	$250 per unit
Super-Efficient Ice Machine (1001–1500 lbs./day)	$400 per unit
Super-Efficient Ice Machine (greater than 1500 lbs./day)	$500 per unit

Section A-2: Path B – Multi-Measure and Custom Measure Incentives

General Requirements:

- Path B is targeted for participants interested in multiple measure upgrades but for one reason or another cannot commit to Path C (Whole Building/Comprehensive). Multi-measure incentives may not be applied for if a project is enrolled or intends to enroll in Path C (Comprehensive/Whole Building see Section A-3).
- Properties can apply for multiple-measures at a single property, or multiple properties. Program can accommodate progress payments as sites are completed.
- Custom Measure technologies require pre-approval prior to installation. Remaining equipment (designated as Prescriptive in Section A-1) may apply for rebates within 12 months of equipment purchase. Pre-approval of applications is available for customers seeking confirmation that their equipment is compliant with program requirements prior to equipment purchase and installation.
- Incentives are available for equipment installed in-units and common areas, as well as outdoor lighting so long as the lighting is on a customer meter and customer is contributing to Societal Benefits charge through their utility bill(s).
- All equipment must be new and permanently installed (i.e. will not be removed by tenant).
- Incentives are available only for equipment purchased by the customer. A customer is defined as building owners, managers, and developers. Individual residents seeking incentives for equipment they purchased can apply for programs under the Residential program portfolio.
- Incentives are available for both existing buildings and new construction, except where explicitly stated otherwise. In general, equipment in new construction projects must exceed IECC 2015/ASHRAE 90.1-2013 to qualify for incentives.
- Equipment must be listed by UL or other OSHA approved Nationally Recognized Testing Laboratory (NRTL) in accordance with applicable US standards, where applicable.
- All equipment-specific rules outlined in Section A-1 apply.
- Incentives/rebates are not available for equipment that previously received incentives through other NJCEP and/or SBC funded programs.

Custom Measure Requirements:

- For measures not covered by the above prescriptive incentive tables, a project may be eligible for a custom measure incentive (e.g. envelope upgrades such as insulation, air-sealing, window replacement, etc.; advanced lighting controls; variable refrigerant flow HVAC; HVAC controls).
- Custom Measure applications require energy savings calculations and must be pre-approved by Program Manager prior to installation.
- For retrofit projects, the energy baseline will be determined by existing condition. Proposed project must at least meet or exceed code. For new construction, the energy baseline will be determined by code and project must exceed code.

Custom Incentive	Incentive Rate
	$0.15/kWh
	$1.50/therm

Multi-Measure Requirements:

- Participants can select any "bundle" listed below. **Participants that successfully implement a bundled project will be eligible for a 10% incentive bonus upon project completion.** A single project may only pursue one bundle and qualify for one bonus. Larger scopes of work should follow Path C, or pursue additional measures through Path A.
- Eligible measures in each bundle are listed in Path A (Section A-1) and must meet all the requirements listed there.
- New construction bundles are assumed to apply to the whole building.

Existing Buildings

Bundle Name	Measure Options	Requirements
Lighting Bundle	• In-unit fixtures • Common area fixtures • Exterior fixtures (attached to building) *Required:* Lighting Controls	Complete at least two improvements from options at left, plus associated lighting controls.
Unit Turnover Bundle	• In-unit lighting fixtures • In-unit Appliances • In-unit DHW low-flow fixtures • In-unit HVAC • In-unit Domestic Hot Water Heater	Complete at least three improvements in each unit from options at left.
DHW Bundle	• Domestic Hot Water Heater • DHW pipe insulation • In-unit DHW low-flow fixtures	Complete all three improvements at left.
HVAC Bundle	• Heating equipment • Cooling equipment *Required:* VFDs or HVAC Controls	Complete at least one improvement from options at left, plus either associated VFDs or HVAC controls.
Envelope Bundle	• Attic/ceiling insulation • Air-sealing • Windows (single-pane replacement only)	Complete at least two upgrades at left. Attic insulation requires air-sealing attic plane. Note these upgrades must be submitted as Custom Measures.
Custom Bundle	Choose at least three upgrades from the above options. May include a Custom Measure as one of the options.	

New Construction

Bundle Name	Measure Options	Requirements
Lighting & Appliance Bundle	• High efficiency in-unit and common area lighting • Common area lighting controls • Exterior lighting (attached to building) • Appliances	Complete all improvements at left.
DHW Bundle	• Domestic Hot Water Heater • In-unit DHW low-flow fixtures • Pipe insulation	Complete all improvements at left.
HVAC Bundle	• Heating equipment • Cooling equipment *Required:* VFDs or HVAC Controls	Complete at least one improvement from options at left, plus either associated VFDs or HVAC controls.
Envelope Bundle	• High performance envelope • Windows	Complete all improvements at left. Note these upgrades must be submitted as Custom Measures.

Section A-3: Path C - Comprehensive, Whole-Building Incentives

General Requirements:

- Path A (Single Measure) and Path B (Custom and Multi-Measure) incentives may not be applied for if project is enrolled or intends to enroll in Path C (Comprehensive/Whole-Building).
- Equipment installed to serve dwelling units, single-room occupancy (SRO) units and common areas can contribute to energy savings target, as well as outdoor lighting so long as the lighting is on a customer meter and customer is contributing to Societal Benefits charge through their utility bill(s).
- Incentives below are based on code definition of Dwelling Unit, which is a single unit providing complete, independent living facilities for one or more persons living as a single housekeeping unit, including permanent provisions for living, sleeping, eating, cooking, and sanitation. Multifamily housing resembling single-room occupancy (SRO) is still eligible to participate but at a reduced rate based on average SRO unit square footage (e.g. 300 sqft) compared to a dwelling unit, which is assumed to be 1,000 sqft. (e.g. 300 ÷ 1000 = 0.30 or 30%, therefore incentive per unit will be reduced by 70%).
- Scope of work must be comprehensive (i.e. more than one measure) and (a) assesses the cost-effectiveness of installing energy conservation measures in each of the following areas: (i) heating systems, (ii) cooling systems, (iii) ventilation systems, (iv) domestic hot water systems, (v) building envelopes, and (vi) lighting and (b) implements all cost-effective energy conservation measures identified through the foregoing assessment or, as to any such measures not implemented, explains why such implementation would not be practicable.
- Incentives are available only for equipment purchased by the customer. A customer is defined as building owners, managers, and developers. Individual residents seeking incentives for equipment they purchased can apply for programs under the Residential program portfolio.
- Customers must work with pre-approved Program consultants/contractors to submit projects through this path.
- All equipment must be new and permanently installed (i.e. will not be removed by tenants).
- Equipment must be listed by UL or other OSHA approved Nationally Recognized Testing Laboratory (NRTL) in accordance with applicable US standards, where applicable.
- Incentives/rebates are not available for equipment that previously received incentives through other NJCEP and/or SBC funded programs.

Existing Buildings:

- Projects require pre-approval prior to installation. Installation may occur earlier at applicant's own risk so long as a successful pre-installation inspection is completed by the Program Manager.
- All proposed equipment must meet or exceed minimum efficiencies outlined in Section A-1. For equipment not listed there minimum efficiencies must meet or exceed ASHRAE 90.1-2013 for multifamily buildings over 3 stories high, and IECC 2015 for low rise multifamily buildings. Equipment not regulated by these codes must be more efficient than industry standard. Requirements may be waived or modified by Program Manager on a case by case basis due to limited market availability of equipment.
- Multifamily properties that are three (3) stories or less that wish to comply with *Home Performance with ENERGY STAR®* may do so by meeting additional inspection and Health and Safety requirements. Utility data must be available at the unit or building level.

Total Source Energy Reduction (kBtu/sqft)	Incentive per apartment unit
Minimum 5% Savings	$500
For every additional full % savings <16% Total Savings	$50
For every additional full % savings ≥ 16% Total Savings	$100

For example, if a project estimates 18% energy savings, using the above incentive structure the final incentive per unit would be $1,300 = [$500 + (10 percentage points x $50) + (3 percentage points x $100)]

- An additional incentive will be paid to the pre-approved consultant to offset the cost of developing the project, including fees for ASHRAE Level II & III energy audit, energy modeling, and project oversight through project installation/construction. This incentive is paid upon successful project completion and providing satisfactory invoices to Program Manager.

Consultant Incentive	Market Rate Housing Incentive per Apartment Unit	Eligible Affordable Housing Incentive per Apartment Unit
	$100	$200

New Construction:

- Procurement of equipment/components of the proposed design scope of work cannot occur prior to project enrollment. This is done at applicant's own risk until the project is approved.
- All proposed equipment must exceed minimum efficiencies outlined in ASHRAE 90.1-2013 for multifamily buildings over 3 stories high, and IECC 2015 for low rise multifamily buildings. Equipment not regulated by these codes must be more efficient than industry standard. Requirements may be waived or modified by Program Manager on a case by case basis due to limited market availability of equipment.
- The below incentive rates are based on compliance with *ENERGY STAR Certified Homes*, *ENERGY STAR Multifamily High-Rise*, and *DOE Zero Energy Ready Home*. Multifamily High-Rise projects are typically directed to submit documentation to MFHR Review Organization (MRO), but may also submit directly to the Program for compliance review.
- The $30/MMBTU is based on site savings as measured from code compliant baseline not including any savings from Renewable Energy.

Compliance Level	ENERGY STAR Certified Homes (Mid and Low-Rise ≤ 5 stories)	ENERGY STAR Multifamily High Rise (High Rise 6+ stories, 4-5 stories option)
ENERGY STAR	$500 + $30/ MMBtu	$500 + $30/ MMBtu
ZERH	$1,500 + $30/ MMBtu	N/A
ZERH + PV	$1,500 + $30/MMBtu + $750	N/A

- An additional incentive will be paid to the pre-approved consultant to offset the cost of developing the project, including fees early design intervention, net zero analysis, energy modeling, and project oversight through project installation/construction. This incentive is paid upon successful project completion and providing satisfactory invoices to Program Manager.
- For projects enrolled in ENERGY STAR Certified Homes, the below incentive will be paid to the RESNET Certified Rater.

Consultant Incentive	Market Rate Housing Incentive per Apartment Unit	Eligible Affordable Housing Incentive per Apartment Unit
	$100	$200

Section A-4: Add-On - Savings Verification/Performance Incentive

General Requirements:

- This is an optional path open to projects pursuing Path C.
- Intent to apply for savings verification incentive must be indicated during initial project submittal.
- For Existing Buildings, at least 12 months of pre-retrofit utility bills is required for all fuels on site. This will be compared to 12 months of post-retrofit utility bills to establish actual energy savings (adjusted for any facility changes outside the scope of work).
- For New Construction, at least 12 months of post-retrofit utility bills is required for all fuels on site and must be entered into Portfolio Manager. Project will be eligible for incentive upon proof of receiving ENERGY STAR Certification (requires score of 75 or higher).

Existing Buildings

Actual Total Source Energy Reduction (kBtu/sqft)	Incentive per apartment unit
Minimum 5% Savings	$75
For every additional full % savings <16% Total Savings	$7.50
For every additional full % savings ≥ 16% Total Savings	$15

For example, if a project estimates 18% energy savings, using the above incentive structure the final incentive per unit would be $195 = [$75 + (10 percentage points x $7.50) + (3 percentage points x $15)]

New Construction

Performance	Incentive per apartment unit
ENERGY STAR Portfolio Manager Certification	$150

Section A-5: Bulk Appliance Recycling

Bulk Appliance Recycling will be available as a feature of the Energy Efficient Products' Appliance Recycling Program. Multifamily properties will be able to schedule no-cost pickup and responsible recycling of old, inefficient appliances. Eligible equipment includes: refrigerators, freezers, room air-conditioners, packaged terminal air-conditioners (PTAC), and dehumidifiers. All air-conditioners must be removed from windows or walls, and dehumidifiers drained of water. Participation in Appliance Recycling is not contingent on participating in any of the program Paths detailed above.

Product Type	Incentive per unit
Refrigerator, Freezer	$50
Room Air Conditioner (RAC), Packaged Terminal Air Conditioner (PTAC), Dehumidifier	$25

Section A-6: Incentive Caps

Incentive caps have been established to ensure that there is equitable access to the C&I programs for all qualifying customers and are proportional relative to the level of effort of the program Path.

	Existing Buildings	New Construction
Path A, total incentive per project shall not exceed equivalent of:	$800 per unit	$400 per unit
Path B, total incentive per project shall not exceed equivalent of:	$1,000 per unit	$600 per unit
Additionally, Custom Measure incentive capped at:	50% of total project cost	50% of total project incremental cost
Path C, total incentive per project shall not exceed:	$1,500 per unit	$1,100 per unit
Additionally, Consultant Incentive shall not exceed: (not included in above Path C cap)	Total invoice to participant	Total invoice to participant
Add On: Savings Verification, total incentive per project shall not exceed:	$225 per unit	$150 per unit

In addition to the specific caps outlined above, under no circumstances may the project's total NJCEP incentives/rebates, combined with other incentives, rebates, grants, or tax credits, exceed 100% of project cost.

A single entity may not receive more than $4 million of commitments in a given Program Fiscal Year.

Fiscal Year 2019 Budget

FY 2019		*Cost Category Budgets*					
Program/Budget Line	*Proposed Budgets (04-30-18)*	*Administration*	*Sales, Marketing, Website*	*Training*	*Rebates, Grants and Other Direct Incentives*	*Rebate Processing and QA*	*Evaluation*
TRC Total	**$275,295,000.00**	**$14,666,358.68**	**$5,609,096.96**	**$698,000.00**	**$242,477,259.81**	**$11,794,884.55**	**$49,400.00**
EE Programs	$236,945,000.00	$13,186,092.55	$487,277.64	$667,500.00	$212,447,437.32	$10,156,692.49	$0.00
Res EE Programs	$75,700,000.00	$5,483,597.11	$162,425.88	$460,500.00	$62,827,512.00	$6,765,965.01	$0.00
Existing Homes	$34,700,000.00	$2,908,200.29	$81,213.00	$421,000.00	$28,705,173.13	$2,584,413.58	$0.00
RNC	$23,000,000.00	$1,570,436.99	$40,606.44	$39,500.00	$20,662,815.17	$686,641.40	$0.00
EE Products	$18,000,000.00	$1,004,959.83	$40,606.44	$0.00	$13,459,523.70	$3,494,910.03	$0.00
C&I EE Programs	$155,245,000.00	$7,702,495.44	$324,851.76	$207,000.00	$143,619,925.32	$3,390,727.48	$0.00
C&I Buildings	$112,445,000.00	$5,852,711.32	$243,638.88	$145,500.00	$103,381,159.18	$2,821,990.62	$0.00
LGEA	$3,800,000.00	$887,823.51	$40,606.44	$49,000.00	$2,453,111.35	$369,458.70	$0.00
DI	$39,000,000.00	$961,960.61	$40,606.44	$12,500.00	$37,785,654.79	$199,278.16	$0.00
Multifamily EE	$6,000,000.00	$0.00	$0.00	$0.00	$6,000,000.00	$0.00	$0.00
Multifamily	$6,000,000.00	$0.00	$0.00	$0.00	$6,000,000.00	$0.00	$0.00
Distributed Energy Resources	$31,200,000.00	$749,627.83	$81,212.88	$12,500.00	$30,029,822.49	$326,836.80	$0.00
CHP - RE Storage	$31,200,000.00	$749,627.83	$81,212.88	$12,500.00	$30,029,822.49	$326,836.80	$0.00
RE Programs	$2,150,000.00	$730,638.30	$40,606.44	$18,000.00	$0.00	$1,311,355.26	$49,400.00
SREC Registration	$2,150,000.00	$730,638.30	$40,606.44	$18,000.00	$0.00	$1,311,355.26	$49,400.00
Outreach and Education	$5,000,000.00	$0.00	$5,000,000.00	$0.00	$0.00	$0.00	$0.00
Outreach, Website, Other	$5,000,000.00	$0.00	$5,000,000.00	$0.00	$0.00	$0.00	$0.00