State of New Jersey
BOARD OF PUBLIC UTILITIES
Post Office Box 350
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

February 19, 2020

To the attached Service List:

Re: In the Matter of the Clean Energy Order Programs and Budget for Fiscal Year 2020
Trued-up and Revised Budgets
BPU Docket No. QO19050645

Agenda Date: January 08, 2020 – Agenda Item: 8A

Please be advised that the Board of Public Utilities is reissuing the Order for the above-referenced agenda item that was approved by the Board of Public Utilities ("Board") at the January 8, 2020 Board agenda meeting to correct a table. The table of Detailed Budgets originally included in the January 8 Order contained an error; five cell values were inadvertently allocated to the "Rebate Processing and QA" budget cost category instead of the "Rebates, Grants and Other Direct Incentives" cost category. The table of Detailed Budgets has therefore been replaced with a table that includes the correct cell values.

Specifically, the costs for the "Rebates, Grants and Other Direct Incentives" for Sustainable Jersey, NJIT Learning Center, Sponsorships, Community Energy Grants, and Electric Vehicles Programs were inadvertently added to the "Rebate Processing and QA" cost category. A total of $32,503,668 has been moved from the "Rebate Processing and QA" cost category to the "Rebates, Grants and Other Direct Incentives" cost category.

This is the only change to the Order, which will be re-distributed to the parties of record and the attached service list. Please substitute this version for the original Order. The corrected Order has been posted on the Board's website.

Sincerely,

Aida Camacho-Welch
Secretary of the Board

/ac

IN THE MATTER OF THE CLEAN ENERGY PROGRAMS AND BUDGET FOR FISCAL YEAR 2020 TRUED UP AND REVISED BUDGET
DOCKET NO. QO19050645

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Agenda Date: 01/08/20
Agenda Item: 8A

STATE OF NEW JERSEY

Board of Public Utilities
44 South Clinton Avenue, 9th Floor
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www.nj.gov/bpu/

CLEAN ENERGY

IN THE MATTER OF THE CLEAN ENERGY ORDER PROGRAMS AND BUDGET FOR FISCAL YEAR 2020 - TRUED-UP AND REVISED BUDGET	)))	ORDER DOCKET NO. QO19050645

Parties of Record:

Stefanie A. Brand, Esq., Director, New Jersey Division of Rate Counsel
Andrew McNally, Esq., Atlantic City Electric Company
Joshua R. Eckert, Esq., Jersey Central Power & Light Company
Andrew K. Dembia, Esq., New Jersey Natural Gas Company
Matthew M. Weissman, Esq., Public Service Electric and Gas Company
Margaret Comes, Esq., Rockland Electric Company
Deborah M. Franco, Esq., South Jersey Gas Company
Michael Ambrosio, TRC Energy Services

BY THE BOARD:

This Order memorializes action taken by the Board of Public Utilities ("Board" or "BPU") at its January 8, 2020 public meeting, where the Board considered revisions to the Fiscal Year 2020 ("FY20") budget[1] for New Jersey's Clean Energy Program ("NJCEP") and approval of revisions associated with FY20 Programs.

BACKGROUND AND PROCEDURAL HISTORY

On February 9, 1999, the Electric Discount and Energy Competition Act ("EDECA" or "Act"), N.J.S.A. 48:3-49 et seq., was signed into law, creating the societal benefits charge ("SBC") to fund programs for the advancement of energy efficiency ("EE") and renewable energy ("RE") in New Jersey. The Act also provided for the Board to initiate proceedings and undertake a comprehensive resource analysis ("CRA") of EE and RE programs in New Jersey every four years. The CRA would then be used to determine the appropriate level of funding over the next four years for the EE and Class I RE programs, which are part of what is now known as NJCEP. Accordingly, in 1999, the Board initiated its first CRA proceeding, and in 2001 it issued an order setting funding levels, the programs to be funded, and the budgets for those programs, all for the years 2001 through 2003. Since then, the Board has issued numerous Orders setting the funding levels, related programs, and program budgets for the years 2004 – FY20.[2]

[1] The budgets approved in this Order are subject to State appropriations law.
[2] In the early years, the budgets and programs were based on calendar years, but in 2012, the Board determined to begin basing the budgets and programs on fiscal years in order to align with the overall State budget cycle.

The Board established FY20 programs and budgets through a Board Order entered In the Matter of the Clean Energy Programs and Budget for FY20, BPU Dkt. No. QO19050645 (June 21, 2019). On December 9, 2019, Board staff ("Staff") released a proposal for the draft true-up budget, funding reallocations and program revisions. Public comments were accepted through December 20, 2019 and are summarized below.

PROPOSED FY20 BUDGET TRUE-UP AND REALLOCATIONS

1. True-up

The FY20 NJCEP budget was established, in part, based upon an estimate of expenses expected to be incurred during FY19. Once actual expenses become known, the Board typically approves a "True-up Budget" truing up for the differences between expenses estimated for budgetary purposes and expenses actually incurred. Consistent with that practice, and now that all expenses actually incurred during FY19 are final and known, Staff has proposed a budget true-up of the differences between estimated and actual expenses ("True-up"), which would result in an additional $31,768,301 being available for NJCEP, as shown in the table below:

Clean Energy Program
FY20 True-up Summary
($)

		FY20		
	FY19 Actual	**CRA Budget**	**True-up Funding**	***Variance***
Prior-year commitments	$ 137,654,048.93	$ 144,784,694.87	$ 150,110,200.21	*$ 5,325,505.34*
Uncommitted carryforward	38,017,620.69	35,960,862.37	58,669,632.33	*22,708,769.96*
SBC revenue	344,665,000.00	344,665,000.00	344,665,000.00	-
Other revenue	7,704,518.23	2,908,170.80	6,642,196.89	*3,734,026.09*
Total Funding Sources	**$ 528,041,187.85**	**$ 528,318,728.04**	**$ 560,087,029.43**	**$ 31,768,301.39**
Prior-year commitments	$ 137,654,048.93	$ 144,784,694.87	$ 150,110,200.21	*$ 5,325,505.34*
New funding Uses*	186,024,474.41	296,445,033.17	322,887,829.22	*26,442,796.05*
CEP Total Funding Uses	**$ 323,678,523.34**	**$ 441,229,728.04**	**$ 472,998,029.43**	**$ 31,768,301.39**
State Budget Allocations	$ 145,693,032.18	$ 87,089,000.00	$ 87,089,000.00	*$ -*
Total Funding Uses	**$ 469,371,555.52**	**$ 528,318,728.04**	**$ 560,087,029.43**	**$ 31,768,301.39**
Uncommitted Resources	**$ 58,669,632.33**	**$ 0.00**	**$ 0.00**	**$ 0.00**

* funding supports new commitments, pay-as-you-go incentives, program operating expenses

In addition to proposing the above True-up, Staff has also proposed reallocating funds among and within programs. The proposed reallocations are described in more detail below ("Reallocations").

2. Reallocations and Rationale for Programs Administered by the Division of Clean Energy[3]

a. Outreach, Website and Other

- Staff recommends that the Outreach, Website and Other budget be increased by $275,000 to expand on sponsorship opportunities which will provide greater engagement and enhanced partnerships with various organizations.

b. Electric Vehicles

- Staff recommends increasing the Electric Vehicles budget by $29,790,000 due to a state appropriations law that passed after the approval of the FY20 NJCEP Programs and Budgets. The state appropriated $30,000,000 for a program that will apply rebates towards plug-in or battery operated vehicles. The original NJCEP budget included $210,000 in the electric vehicles budget line item. The additional amount brings the total electric vehicles budget to $30,000,000.

c. State Facilities Initiative

- In order to increase implementation of energy efficiency projects in State-owned facilities or State-sponsored projects, Staff recommends that $18,778,443 be allocated to the State Facilities Initiative Program.

d. BPU Program Administration

- Staff recommends that $500,000 be added to BPU Program Administration to cover costs for increased staffing and additional resources for administrative support.

e. Clean Energy Website

- A new Clean Energy Program website is being planned for enhanced web design and cyber security upgrades. Staff recommends that $400,000 being added to the NJCEP budget to cover the costs of web design, development, hosting and maintenance.

[3] More information about the programs administered by the Division of Clean Energy is included in NJCEP's FY20 revised compliance filing ("OCE Compliance Filing") (attached as Exhibit A).

f. Community Energy Grants

- The NJCEP approved FY20 Budget included funding for a Community Energy Grants program to assist municipalities and communities in the development of community energy planning. Due to timing and time needed to launch the program, the full budget forecasted for FY20 will not be expended. Staff recommends that the full budget be reduced by $3,823,038.

g. Storage

- Due to timing and completion of the study, the full budget forecasted for FY20 will not be expended.

3. Reallocations and Rationale for Programs Administered by TRC[4]

a. Energy Efficiency Products
- Due to higher levels of increased spending compared to forecasts, Staff recommends increasing the budget by $4,000,000.

b. Residential Energy Efficiency

- Due to lower than forecasted participation levels in the Residential Energy Efficiency Programs, combined with actual expenditures from FY19, Staff recommends reducing the budget by $8,152,104.

c. Commercial & Industrial ("C&I") EE
- Based on adjusted made to the FY19 actual expenses and forecasts, Staff recommends reducing the C&I budget by $4,000,000.

d. Multifamily

- Due to a later than anticipated expected launch date for the new Multifamily program, the total budget proposed will not be utilized. Staff recommends reallocating $3,000,000 from the program.

Revised Budget Table:

The proposed True-up and reallocations are shown in the table below:

[4] More detail about the programs administered by TRC is included in TRC's FY20 revised compliance filing (attached as Exhibit B).

Fiscal Year 2020 True-up Budget

Program/Budget Line	*FY19 Initial budget per 6/21/19 Order*	*Budget Revisions*	*True-up Reallocations*	*Revised FY20 Total Budget*
Total -NJCEP + State Initiatives	$ 528,318,728.04	$ 31,768,301.39	$ 0.00	$ 560,087,029.43
State Energy Initiatives	$ 87,089,000.00	$ -	$ -	$ 87,089,000.00
Total NJCEP	$ 441,229,728.04	$ 31,768,301.39	$ 0.00	$ 472,998,029.43
EE Programs	$ 356,347,140.32	$ 1,303,301.39	$ 6,323,038.00	$ 363,973,479.71
Res EE Programs	$ 84,575,652.49	$ -	$ (4,152,103.65)	$ 80,423,548.84
Residential Retrofit	41,182,585.25	-	(8,152,103.65)	33,030,481.60
RNC	17,053,370.24	-	-	17,053,370.24
EE Products	26,339,697.00	-	4,000,000.00	30,339,697.00
Res Low Income	$ 45,500,000.00	$ -	$ -	$ 45,500,000.00
Comfort Partners	45,500,000.00	-	-	45,500,000.00
C&I EE Programs	$ 180,551,452.42	$ -	$ (4,000,000.00)	$ 176,551,452.42
C&I Buildings	121,238,236.35	-	(4,000,000.00)	117,238,236.35
LGEA	4,682,805.60	-	-	4,682,805.60
DI	54,630,410.47	-	-	54,630,410.47
Multi-family EE	$ 7,909,605.00	$ -	$ (3,000,000.00)	$ 4,909,605.00
Multi-family	7,909,605.00	-	(3,000,000.00)	4,909,605.00
State Facilities Initiative	$ 37,810,430.40	$ 1,303,301.39	$ 17,475,141.65	$ 56,588,873.44
State Facilities Initiative	37,810,430.40	1,303,301.39	17,475,141.65	56,588,873.44
Distributed Energy Resources	$ 30,344,822.65	$ -	$ -	$ 30,344,822.65
CHP - RE Storage	21,204,822.65	-	-	21,204,822.65
RE Storage	140,000.00	-	-	140,000.00
Fuel Cells	5,000,000.00	-	-	5,000,000.00
Microgrids	4,000,000.00	-	-	4,000,000.00
RE Programs	$ 8,280,623.05	$ -	$ -	$ 8,280,623.05
Offshore Wind	3,280,623.05	-	-	3,280,623.05
Community Solar	3,000,000.00	-	-	3,000,000.00
SREC Registration	2,000,000.00	-	-	2,000,000.00
EDA Programs	$ 91,007.38	$ -	$ -	$ 91,007.38
Planning and Administration	$ 18,028,096.65	$ 675,000.00	$ 500,000.00	$ 19,203,096.65
BPU Program Administration	3,055,000.00	-	500,000.00	3,555,000.00
BPU Program Administration	3,055,000.00	-	500,000.00	3,555,000.00
Marketing	$ 4,000,000.00	$ -	$ -	$ 4,000,000.00
New Marketing Contract	4,000,000.00	-		4,000,000.00
CEP Website	$ -	$ 400,000.00	$ -	$ 400,000.00
Program Evaluation/Analysis	$ 4,219,428.25	$ -	$ -	$ 4,219,428.25
Outreach and Education	$ 6,683,668.40	$ 275,000.00	$ -	$ 6,958,668.40
Sustainable Jersey	742,085.00	-	-	742,085.00
NJIT Learning Center	691,583.40	-	-	691,583.40
Conference	750,000.00	-	-	750,000.00
Outreach, Website, Other	4,500,000.00	275,000.00	-	4,775,000.00
Sponsorships	$ 70,000.00	$ -	$ -	$ 70,000.00
Sponsorships	70,000.00	-	-	70,000.00
New Initiatives	$ 28,138,038.00	$ 29,790,000.00	$ (6,823,038.00)	$ 51,105,000.00
Community Energy Grants	4,823,038.00	-	(3,823,038.00)	1,000,000.00
Storage	7,105,000.00	-	(3,000,000.00)	4,105,000.00
EV	210,000.00	29,790,000.00	-	30,000,000.00
NJ Wind	4,500,000.00	-	-	4,500,000.00
R&D Energy Tech Hub	4,500,000.00	-	-	4,500,000.00
Workforce Development	2,500,000.00	-	-	2,500,000.00
Curriculum	4,500,000.00	-	-	4,500,000.00

4. Detailed Budgets

Staff has proposed that the Board review and approve the detailed budgets to allocate the proposed budget revisions among the appropriate cost categories for each of the programs identified above, with the resulting detailed budgets as shown in the table below ("Detailed Budgets"):

FY 2020 True-up Budget Revised February 14, 2020		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 -NJCEP + State Initiatives	**$560,087,029**	**$31,921,963**	**$11,643,954**	**$1,436,034**	**$493,922,823**	**$13,492,204**	**$7,670,051**
State Energy Initiatives	$87,089,000	$0	$0	$0	$87,089,000	$0	$0
Total NJCEP	**$472,998,029**	**$31,921,963**	**$11,643,954**	**$1,436,034**	**$406,833,823**	**$13,492,204**	**$7,670,051**
EE Programs	**$363,973,480**	**$15,422,258**	**$1,637,741**	**$1,411,034**	**$333,248,505**	**$12,083,942**	**$170,000**
Res EE Programs	**$80,423,549**	**$4,998,046**	**$162,426**	**$447,000**	**$67,441,845**	**$7,374,232**	**$0**
Residential Retrofit	$33,030,482	$2,719,211	$81,213	$420,000	$27,133,335	$2,676,722	$0
RNC	$17,053,370	$1,279,875	$40,606	$27,000	$14,871,077	$834,812	$0
EE Products	$30,339,697	$998,960	$40,606	$0	$25,437,433	$3,862,698	$0
Res Low Income	**$45,500,000**	**$2,317,112**	**$1,109,857**	**$814,034**	**$39,614,446**	**$1,474,551**	**$170,000**
Comfort Partners	$45,500,000	$2,317,112	$1,109,857	$814,034	$39,614,446	$1,474,551	$170,000
C&I EE Programs	**$176,551,452**	**$7,167,394**	**$324,852**	**$125,000**	**$166,160,107**	**$2,774,100**	**$0**
C&I Buildings	$117,238,236	$5,329,610	$243,639	$75,000	$109,379,921	$2,210,066	$0
LGEA	$4,682,806	$881,824	$40,606	$25,000	$3,420,348	$315,028	$0
DI	$54,630,410	$955,961	$40,606	$25,000	$53,359,838	$249,006	$0
Multi-family EE	**$4,909,605**	**$939,706**	**$40,606**	**$25,000**	**$3,443,234**	**$461,058**	**$0**
Multi-family	$4,909,605	$939,706	$40,606	$25,000	$3,443,234	$461,058	$0
State Facilities Initiative	**$56,588,873**	**$0**	**$0**	**$0**	**56,588,873**	**$0**	**$0**
State Facilities Initiative	$56,588,873	$0	$0	$0	$56,588,873	$0	$0
Distributed Energy Resources	**$30,344,823**	**$629,060**	**$40,606**	**$0**	**$29,476,650**	**$198,507**	**$0**
CHP - RE Storage	$21,204,823	$629,060	$40,606	$0	$20,414,085	$121,072	$0
RE Storage	$140,000	$0	$0	$0	$135,000	$5,000	$0
Fuel Cells	$5,000,000	$0	$0	$0	$4,927,565	$72,435	$0
Microgrids	$4,000,000	$0	$0	$0	$4,000,000	$0	$0
RE Programs	**$8,280,623**	**$724,638**	**$40,606**	**$25,000**	**$3,000,000**	**$1,209,755**	**$3,280,623**
Offshore Wind	$3,280,623	$0	$0	$0	$0	$0	$3,280,623
Community Solar	$3,000,000	$0	$0	$0	$3,000,000	$0	$0
SREC Registration	$2,000,000	$724,638	$40,606	$25,000	$0	$1,209,755	$0
EDA Programs	**91,007**	**91,007**	**$0**	**$0**	**$0**	**$0**	**$0**
Planning and Administration	**$19,203,097**	**$3,555,000**	**$9,925,000**	**$0**	**$1,503,668**	**$0**	**$4,219,428**
BPU Program Administration	**$3,555,000**	**$3,555,000**	**$0**	**$0**	**$0**	**$0**	**$0**
BPU Program Administration	$3,555,000	$3,555,000	$0	$0	$0	$0	$0
Marketing	**$4,000,000**	**$0**	**$4,000,000**	**$0**	**$0**	**$0**	**$0**
New Marketing Contract	$4,000,000	$0	4,000,000	$0	$0	$0	$0
CEP Website	**$400,000**	**$0**	**$400,000**	**$0**	**$0**	**$0**	**$0**
Program Evaluation/Analysis	**$4,219,428**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,219,428**
Program Evaluation	$3,969,428	$0	$0	$0	$0	$0	$3,969,428
Research and Analysis	$250,000	$0	$0	$0	$0	$0	$250,000
Outreach and Education	**$6,958,668**	**$0**	**$5,525,000**	**$0**	**$1,433,668**	**$0**	**$0**
Sustainable Jersey	$742,085	$0	$0	$0	$742,085	$0	$0
NJIT Learning Center	$691,583	$0	$0	$0	$691,583	$0	$0
Conference	$750,000	$0	$750,000	$0	$0	$0	$0
Outreach, Website, Other	4,775,000	0	4,775,000	0	0	0	0
Sponsorships	**$70,000**	**0**	**0**	**0**	**$70,000**	**0**	**0**
Sponsorships	70,000	0	0	0	70,000	0	0
New Initiatives	**$51,105,000**	**$11,500,000**	**$0**	**$0**	**$39,605,000**	**$0**	**$0**
Community Energy Grants	**$1,000,000**	**$0**	**$0**	**$0**	**$1,000,000**	**$0**	**$0**
Storage	**$4,105,000**	**$0**	**$0**	**$0**	**$4,105,000**	**$0**	**$0**
EV	**$30,000,000**	**$0**	**$0**	**$0**	**$30,000,000**	**$0**	**$0**
NJ Wind	**$4,500,000**	**$0**	**$0**	**$0**	**$4,500,000**	**$0**	**$0**
R&D Energy Tech Hub	**$4,500,000**	**$4,500,000**	**$0**	**$0**	**$0**	**$0**	**$0**
Workforce Development	**$2,500,000**	**$2,500,000**	**$0**	**$0**	**$0**	**$0**	**$0**
Curriculum	**$4,500,000**	**$4,500,000**	**$0**	**$0**	**$**	**$0**	**$0**

5. Program Revisions

To increase participation, Staff proposed to make facilities owned or operated by county entities eligible for the same enhanced incentives for which buildings owned or operated by municipal entities or public K-12 schools are currently eligible. The enhancements are significant (up to double the "base" incentives) and are available for many projects covered by the Multifamily Program or the Commercial and Industrial Programs. The details of the current enhancements are set forth in the current TRC Compliance Filing, which is available here: www.njcleanenergy.com/files/file/Library/6c%20-%20FY20%20TRC%20Compliance%20Filing%20%20v6%20w%20App%20J%20v3_3.pdf.

TRC's compliance filing includes enhanced incentives for new construction single and multi-single family homes and several programs that address multifamily buildings and states, in part, that enhanced incentives are available for eligible buildings that are occupied by low and moderate income (LMI) residents. TRC proposes to clarify that enhanced incentives will be available to any multifamily building or new construction single or multi-single family home defined as "affordable housing" by the New Jersey Housing and Mortgage Finance Agency, or the US Department of Housing and Urban Development, for example.

SUMMARY OF COMMENTS FROM PUBLIC STAKEHOLDERS

On December 9, 2019, Staff posted on the NJCEP website and distributed to the listserv a Request for Comments regarding the proposed FY20 True-up, budget revisions and program changes. Comments were accepted through December 20, 2019. Written comments submitted by the New Jersey Division of Rate Counsel ("Rate Counsel"), Green Waste Energy, PSE&G and The Energy Consulting Group, are summarized below, along with Staff's responses.

Comment: Rate Counsel expressed its concern for funding reallocations and would like to see additional information for why program funding such as the Residential Energy Efficiency Retrofits is being reduced.

Response: Staff appreciates the comments and plans to provide more regular program updates.

Comment: Rate Counsel and PSE&G commented on the funding increase for state facilities and have requested more detailed information on spending and savings.

Response: Staff appreciates the comments and would refer to Docket Number QO19101423 for examples of projects funded through this program.

Comment: Rate Counsel, PSE&G and Green Waste Energy provided comments on the increased funding for electric vehicles.

Response: Staff appreciates the comments and seeks to clarify that the funding does not increase the total FY20 SBC funding. Pursuant to P.L.2019, c.150, staff will implement the new Electric Vehicles program. Additional information is available via Docket Number QO19091282.

Comment: PSE&G requested that the Board of Public Utilities sunset its current energy efficiency programs to allow for the utilities to administer the programs.

Response: Staff appreciates the comments and is working towards a new administrative framework for energy efficiency program delivery. Ongoing stakeholder meetings are being held and a draft straw proposal was released on December 20, 2019. Staff anticipates valuable comments on the proposal and will continue to solicit feedback through the energy efficiency transition process.

Comment: The Energy Consulting Group provided comments on the reduction of funding from the Multifamily program and has questioned the launch of the program.

Response: Staff appreciates the comments, clarifies that the reduced funding is due to the launch, and reminds stakeholders that the Multifamily program is intended to enhance program administration and that multifamily projects are currently eligible through the existing NJCEP portfolio. The enhanced Multifamily program is being reviewed as Staff works through the energy efficiency transition in light of Clean Energy Act requirements.

BOARD STAFF RECOMMENDATIONS

Consistent with the Board's contract with its Program Administrator, Staff coordinated with TRC regarding the proposed budget revisions and program revisions. The FY20 Proposed Budget Revisions include the True Up, Reallocations, and Detailed Budgets.

Having reviewed and considered the comments, Staff recommends that the Board adopt and approve FY20 Proposed Budget Revisions and the Revised OCE and TRC Compliance Filings attached hereto.

DISCUSSION AND FINDINGS

The Board **FINDS** that budget revisions will benefit customers and are consistent with the goals of reducing energy usage and associated emissions. Therefore, the Board **HEREBY APPROVES** the Revised OCE Compliance Filing and Revised TRC Compliance Filing.

Staff distributed the Proposed FY20 Budget Revisions to the EE and RE listservs, posted them on the NJCEP website, and solicited written comments about them from stakeholders and the public. Staff and the Board considered those comments. Accordingly, the Board **FINDS** that the processes utilized in developing these proposed budget revisions and programs were appropriate and provided stakeholders and interested members of the public with adequate notice and opportunity to comment.

The Board has reviewed the FY20 Budget Revisions. The Board **FINDS** that these budget revisions and new programs will benefit customers and are consistent with the goals of reducing energy usage and associated emissions and **HEREBY APPROVES** the Proposed FY20 Budget Revisions and programs recommended by Staff.

This Order shall be effective on January 18, 2020.

DATED: 1/8/20

BOARD OF PUBLIC UTILITIES
BY:

JOSEPH L. FIORDALISO
PRESIDENT

MARY-ANNA HOLDEN
COMMISSIONER

DIANNE SOLOMON
COMMISSIONER

UPENDRA J. CHIVUKULA
COMMISSIONER

ROBERT M. GORDON
COMMISSIONER

ATTEST:

AIDA CAMACHO-WELCH
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities.

IN THE MATTER OF THE CLEAN ENERGY PROGRAMS AND BUDGET FOR FISCAL YEAR 2020 TRUED UP AND REVISED BUDGET
DOCKET NO. QO19050645

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New Jersey's Clean Energy Program™

FISCAL YEAR 2020
PROGRAM DESCRIPTIONS AND BUDGETS

DIVISION OF CLEAN ENERGY

Renewable Energy Programs, Energy Efficiency Programs, Distributed Energy Resources and NJCEP Administration Activities

FY20 Compliance Filing
Revision 2

February 14, 2020

Table of Contents

Introduction

The Fiscal Year 2020 (FY20) Compliance Filing provides program descriptions and budgets of the *New Jersey Clean Energy Programs*™ (NJCEP) administered by the New Jersey Board of Public Utilities (BPU or the Board) and its Office of Clean Energy (OCE).

New Jersey's Clean Energy Program is a signature initiative of the BPU that promotes increased energy efficiency (EE), the use of clean, renewable sources of energy including solar and wind, and distributed energy resources (DER). The results for New Jersey are a stronger economy, less pollution, lower costs, and reduced demand for electricity. NJCEP offers financial incentives, programs, and services for residential, commercial, and governmental customers.

OCE Renewable Energy Programs

Offshore Wind Program

Established in 2018, the Interagency Taskforce on Offshore Wind (OSW) was developed to implement Executive Order 8 which called upon all State agencies with responsibility under the Offshore Wind Economic Development Act (OWEDA) (statute amending P.L. 2007, c.340 and P.L. 1999, c.23) to work collaboratively towards the establishment of a vibrant offshore wind market in New Jersey and in the region. In FY19, a consultant for the Offshore Wind Strategic Plan was retained for a two-year term that will be completed in FY20. The Offshore Wind Strategic Plan was launched in August 2018 and includes establishing the framework for moving forward in consultation with stakeholders and strategic partners. The consultant has also provided the parameters and timing of the solicitation for 1,100 megawatts, and on the full solicitation schedule needed to reach 3,500 megawatts by 2030.

Additionally, an RFQ for an offshore wind economic consultant was issued in FY19 and consisted of reviewing and evaluating offshore wind project proposals, consistent with OWEDA, specifically, the technical feasibility of proposals, the energy producing capacity underlying project economic performance, energy pricing, cost/benefit analysis, job creation, project financing and the public subsidy requested. A contract was awarded in FY19 with all costs to be recovered through the OSW Applicants' Application Fees as allowed under OWEDA.

In September 2018, the Board announced the opening of a competitive solicitation for 1,100 MWs, the largest single state solicitation in the Nation, and a framework for future solicitations. The competitive solicitation resulted in applications from three experienced offshore wind developers that represent multi-billion-dollar investments and hundreds of

clean energy jobs for New Jersey. In December 2018, the Board adopted the OREC Funding Mechanism Rules, which established a new and innovative funding structure that reduced risk for investors.

In FY20, Board staff (Staff) will continue its efforts towards advancing the goals of generating 3,500 MW by the year 2030 from offshore wind. Rutgers' Department of Marine and Costal Sciences (DMCS) will continue assisting with offshore wind modeling.

Additionally, in FY20, Staff has identified three necessary activities:

1) A consultant to conduct a study of the options for transmission of OSW power to the NJ transmission and distribution grid. How transmission will be handled in the second and future solicitations is a significant issue that will need to be addressed prior to the development of the second solicitation.

2) A consultant to support Staff over a multi-year period for the following tasks:

- Development of a transmission solicitation, if needed;
- Evaluation of responses to the transmission solicitation, if needed;
- Development of additional OSW generation solicitations; and
- Evaluation of responses to additional OSW generation solicitations.

3) Additional funding for an increase in scope for the OSW Strategic Plan consulting team.

Community Solar

The New Jersey Community Solar Energy Pilot Program was launched on February 19, 2019, pursuant to the Clean Energy Act (P.L. 2018, Chapter 17). The Pilot Program specifically aims to increase access to solar energy by enabling electric utility customers to participate in a solar generating facility that may be remotely located from their own residence or place of business. The Program Year 1 Application Period opened on April 9, 2019, and will close on September 9, 2019, at which time applications will be evaluated and selected by the Board.

The Pilot Program includes an ambitious target for low- and moderate-income inclusion, with 40% of program capacity reserved to projects serving a majority of low- and moderate-income participants. The FY20 budget includes funding for new programs to support the development of low- and moderate-income community solar projects, with a particular emphasis on low-income inclusion. Details on program requirements will be subsequently reviewed and approved by the Board.

NJWIND

New Jersey is committed to developing offshore wind and building this industry in our state. Governor Murphy has laid out the path to attain 100% clean power by 2050 and this includes the development of 3,500 MW of wind off the coast of New Jersey. In addition the

NJ Wind Innovation and New Development (WIND) Institute was announced as part of the Governor's State of Innovation 2018 report. The institute will leverage educational institutions, corporate partners, utilities, labor unions and government agencies to create state clearinghouse for education, research, innovation, and workforce training for the future of wind energy.

OCE Energy Efficiency Programs

State Facility Initiatives

The State Facilities Initiative identifies and implements energy efficiency projects in State-owned facilities or State-sponsored projects with the objective of producing energy and cost savings. The Energy Capital Committee (ECC), consisting of members from the Department of Treasury and the BPU's State Energy Office (SEO), coordinates and recommends approval of these projects based on evaluation of capital costs and anticipated energy savings. The list of planned projects includes those identified through energy audits completed, in progress, or proposed for various State facilities, as well as projects requested by State agencies in support of policy goals identified in the Energy Master Plan. Treasury's Division of Property Management and Construction (DPMC), Energy Initiatives Group, along with the SEO, will coordinate the design, construction, or renovation of State facilities in support of this initiative.

The FY20 budget includes additional funding for State-sponsored projects within Trenton, and other projects to be identified and prioritized through the review of FY20 budget requests from State agencies. Projects will include continuation of the Richard J. Hughes Justice Complex project, the Department of Environmental Protection Building project, as well as other: (a) improvements, upgrades, and replacements of air handling and movement systems; (b) lighting and equipment upgrades and replacements; (c) boiler, chiller and Heating, Ventilation and Air Conditioning (HVAC) replacements; (d) lighting and building controls; and (e) renewable energy and energy efficiency (EE) systems, all at State facilities, and (f) injection of funding on current state facility projects outside of the ECC domain that have an EE or RE component but are stalled due to lack of funding. This was pursuant to a February 24, 2017 Memorandum of Understanding between the BPU and the New Jersey Division of Property Management and Construction, any balance of the FY17 funds for the State Facility initiatives is committed to the Richard J. Hughes Justice Complex project, the Department of Environmental Protection Building project. Final Design for these projects were completed. The contract was awarded for the Justice complex portion of the project and construction started in February 2019. FY19 projects continue, such as the Katzenbach facility, Department of Transportation Headquarters facility and the New Jersey state Police Headquarters. New projects for the FY20 year will include OIT Hub upgrades, the State Library, and work on upgrades to the Statehouse in coordination with the overall State House rehabilitation project. Energy Audits increased in FY19 to initiate ESIP projects and this program is expected to significantly increase in project volume for FY20. Additionally, a potential program for EE upgrades, and possible DER generation, is

being explored for State colleges and Universities to assist them with more efficient coordinated usage and energy savings.

The FY18 budget was modified to allow $3 million additional funding to the Energy Capital Committee which will be directed toward the Edna Mahan Correctional Facility as start-up funding for the ESIP project. The FY19 budget included $5 million in additional funding for State-sponsored projects that will be identified by the ECC this year. The FY20 budget includes $10 million for the State Facilities Initiative and there is a true-up of an additional $15 million from FY19. There are multiple projects in the queue under the ECC purview and Energy Audits program that are being prioritized and initiated based on the additional funding that has become available. These include multiple Department of Military and Veteran Affairs (DMAVA) facilities, continued Correctional facilities and health facilities, such as state psychiatric hospitals.

The SEO supported Treasury with the bidding of natural gas and electric supply and secured contract extensions for the next two years. Work will continue on FY20 to support Treasury on bidding and preparations for solicitations of contracts for the three-year term, beyond the extension, for State facilities and organizations that choose to participate in the Energy Supply program. Traditionally, the three-year contracts have saved participating facilities significant energy costs as the contracts are priced based on aggregated energy consumption.

The ECC and SEO have initiated a "measurement & verification" step in the work being performed on projects the energy savings generated by this initiative. Also, the SEO has initiated a work plan to obtain historical energy savings metrics from past projects and start tracking these metric on current and future projects to inform future funding decisions. The main goal of this initiative is to optimize energy efficiency in State-owned facilities, thereby enabling the State to participate in the cost savings and related benefits of NJCEP.

<u>Community Energy Grants</u>

The Board created the Community Energy Grants Program in Board in Fiscal Year (FY) 19. The FY20 budget includes funding for phase one of the program which was approved by the Board at its May 8, 2019 Agenda Meeting. The Program helps communities leverage the existing programs as well as encourage other energy saving behavior modifications, with the goal to reduce energy usage as a whole. The creation of Community Energy Planning Grant is the first step in having communities, municipalities and counties identify their own needs, benchmark energy usage and emissions and create their own community energy plans to reach goals that are in line with Governor Murphy's goals to fight climate change.

Details regarding the program and phase one can be found in the program requirements and application previously approved by the Board. The Program will be managed by BPU Staff. The grants are for the creation of a Community Energy Plan. The maximum grant

award will be determined by the size of the community applying for the grant but will not exceed $25,000 per grant. Community size is based on the population of the municipality or county applying.

OCE Distributed Energy Resources Programs

Energy Storage

In FY19, the Board asked Rutgers University to conduct an analysis of energy storage (ES) in New Jersey pursuant to the Clean Energy Act. The contract for the requested analysis commenced on November 1, 2018. Per the Clean Energy Act, the final report is due to the New Jersey Legislature on May 23, 2019.

In FY20, the BPU will initiate a proceeding to establish a process and mechanism for achieving the State's goals of 600 MW of energy storage by 2021 and 200 MW of energy storage by 2030. The FY20 budget includes funding for grants and administration of this program. Details on program requirements and applications will be subsequently reviewed and approved by the Board.

Microgrid Development

The BPU TCDER Microgrid Program focused initially on Town Center DER microgrids that include critical facilities at the local level identified in the NJIT Report or similar Town Centers within the nine Sandy designated counties that can document that they satisfy the screening criteria set in the NJIT Report.

The NJIT Town Center screening criteria were based on a cluster of critical facilities that included the following ranking:

1. Criticality based on the FEMA Category Classification of Facilities; and
2. Total electric and thermal loads based on Btu's per square foot.

A Town Center DER Microgrid should have at least two Category III or IV facilities within 0.5 miles and a facility with an energy usage of approximately 90 M Btus per square foot.

In FY18, the Board requested that interested applicants submit a request for funding of a TCDER Microgrid feasibility study. The universe of program applicants was limited to local government entities or state agencies that own or manage critical facilities. For this program, critical facilities were any (a) public facility, including any federal, state, county, or municipal facility, (b) non-profit and/or private facility, including any hospital, police station, fire station, water/wastewater treatment facility, school, multifamily building, or similar facility that (i) was determined to be either Tier 1 or critical infrastructure by the Office of Emergency Management or the Office of Homeland Security and Preparedness or (ii) could serve as a shelter during a power outage. The program is managed by the BPU through a Memorandum of Understanding (MOU) process between the BPU and TCDER

applicant town or county, with a letter of support from the applicable Electric Distribution Company (EDC).

In FY20 includes funding for Phase 2 of this program. Staff will identify projects for Phase 2 based on the feasibility of the project, the involvement of the applicable EDC, and an acknowledgement that the applicant will be responsible to share in the total cost of Phase 2.

An applicant for Phase 2 must have had a Phase 1 evaluation study approved by BPU to be eligible for Phase 2. The program is not open to single-building or campus-setting microgrids that are eligible for other NJCEP incentives.

After the design and engineering phase is completed, the towns will decide to move forward with the third phase which is the construction and implementation of the project. Towns will be funding the projects through various financing mechanisms, including municipal budgets, bonds, the NJ Environmental Infrastructure Trust and other means. In order to assist towns to advance the projects into Phase 3, BPU applied for and received a grant of $299,840 from the US DOE to conduct a study regarding financing microgrids. The study has the following objectives:

- Analyze existing best practices to inform the development of the procurement/financing models;
- Evaluate and track the 13 TCDER microgrid feasibility studies as they enter the procurement and financing process to derive "real-world" information that can further refine the models; and,
- Produce a guide grounded in legal, economic and regulatory realities to help jurisdictions across the United States better understand the process of procuring and financing advanced community microgrids.

Towns can also move forward with Phase 1 through 3 without the approval of BPU, if the towns have financing options available.

Electric Vehicles

The Division of Clean Energy received a $210,000 grant from the US Department of Energy to establish an Electric Vehicle Program to support the purchase and use of zero-emissions vehicles and infrastructure.

BPU Program Administration

<u>BPU Program Administration</u>

The OCE is charged by the Board with the responsibility for administering NJCEP. As

the administrator of NJCEP, the OCE is responsible for various program-related matters including:

1. Developing recommendations to the Board regarding programs to be funded, budgets for those programs and various matters related to the administration and implementation of the programs.
2. Drafting Board Orders memorializing Board decisions and tracking compliance with such Orders.
3. Administering the Clean Energy Fund trust ("CEF") to support all program activity, including:
    a. Ensuring compliance with State policy and procedures regarding all payments to and from the CEF for program-related activities;
    b. Coordinating with Treasury with regard to financial management and reporting of NJCEP and reconciliation of the CEF with the rest of the State financial system; and.
    c. Coordinating the activities of the Energy Efficiency and Renewable Energy Stakeholder Groups, including soliciting input regarding programs, budgets and program administrative matters.
4. Overseeing the activities of the Program Administrator, as well as the utilities, EDA, and OCE itself with regard to education and outreach efforts, and other issues.
5. Developing reporting guidelines and providing the Board with regular updates regarding program activities.
6. Developing protocols for measuring energy savings and renewable energy generation.
7. Overseeing evaluation and related research activities.
8. Developing program goals, performance indicators and minimum requirements for program management.
9. Monitoring program activity, reviewing evaluation results, and recommending modifications to programs and budgets as required.
10. Developing requests for proposals to engage program administrators and/or managers, evaluation contractors and other contractors that assist with the administration of the programs, evaluating proposals received, and selecting contractors.
11. Facilitating resolution of issues related to program management and customer complaints.
12. Managing the Comprehensive Resource Analysis (CRA) proceedings to set funding levels.
13. Managing requests for proposals (RFPs) for program services and related program transition activities.

<u>Sponsorships</u>

This component of the budget includes funding for sponsoring the National Association of State Energy Offices (NASEO), which coordinates efforts amongst state energy offices.

Economic Development Authority

The New Jersey Economic Development Authority (EDA) will continue to manage grants and loans previously approved within the portfolio of New Jersey's Clean Energy Program:

1. The Edison Innovation Clean Energy Manufacturing Fund (CEMF); and
2. The Edison Innovation Green Growth Fund (EIGGF).

The CEMF program provided assistance in the form of low-interest loans and non-recoverable grants to companies manufacturing renewable energy, clean energy and energy-efficiency products in New Jersey. The CEMF will ultimately provide New Jersey consumers with greater access to these products by developing manufacturing facilities in New Jersey.

The EIGGF program offered assistance in the form of loans to clean technology companies that have achieved 'proof of concept' and successful, independent beta results and are seeking funding to grow and support their technology business. The EIGGF will ultimately provide New Jersey consumers with greater access to these products by developing emerging technologies in New Jersey.

No new applications will be accepted and no new grants or incentives will be awarded during FY20. Instead, EDA will manage the existing portfolio of loans and grants previously awarded through the programs. Ongoing work may include, but is not limited to, paying incentives previously awarded, monitoring compliance with the funding agreements, and collecting of loan repayments.

Evaluation/Analysis

Program Evaluation / Analysis

Evaluation and related research provides insights and analysis of clean energy markets and programs. The BPU is the lead implementing agency for the development and implementation of the New Jersey Energy Master Plan and New Jersey's Clean Energy Program. As such, the BPU is required to track and report on progress in meeting the EMP goals, as well as to evaluate current and proposed NJCEP programs in terms of their rate impact and the cost versus benefits of specific programs operated through ratepayer funds. The BPU is also required to establish baselines related to efficiency, renewable energy generating sources and emerging technologies and to evaluate the market potential for current and emerging clean energy technologies.

Rutgers University's Center for Green Buildings (RCGB) has been engaged by the BPU's OCE has engaged R to manage program evaluation, the NJ Energy Data Center and to perform cost-benefit analyses and other related research activities either directly or through subcontracts with third parties. Through mid-FY20 RCGB will (i) develop

evaluation and related research plans, (ii) solicit input on the plans from the OCE, the Energy Efficiency and Renewable Energy Stakeholder Groups, program administrators and managers and others, and (iii) implement the final plans approved by OCE.

Once evaluation plans are approved, RCGB will either perform the evaluation and research activities or develop the technical components of RFPs to engage outside contractors to perform the evaluations. Rutgers Center for Green Building will work with OCE staff to perform annual tasks and additional, one-time evaluation activities related to specific priorities for FY20, as detailed in the attached table. RCGB will also work with the OCE Energy to subcontract certain tasks related to RCGB activities, through an RFP issued by Rutgers. RCGB's technical experience will also support other, larger evaluation activities of the OCE, procured through Treasury. In certain cases, additional evaluations will be procured externally and managed directly by OCE.

RCGB and other evaluation contractors will work with BPU's OCE and the Clean Energy Program Administrator, as well as other relevant parties, to implement the contracted evaluations and support the overall clean energy evaluation activities of the BPU.

During FY20, the Evaluation and Related Research budget component consists of the following subcomponents:

1. Program Evaluation Contractors

This portion would fund the above-described contract to provide overall program evaluation management services, track progress towards EMP goals and perform cost benefit analyses using the services of the RCGB. It would also fund additional evaluation activities, as procured by Treasury.

FY20 priorities for evaluation activities for the OCE include:

Fiscal Year	**Evaluation Study Name[1]**	**To be conducted by**

[1] The timeline for completing the evaluations may vary. Evaluations started in FY20 may or may not be completed in that same fiscal year.

FY20 *(1 July 2019 to 30 June 2020)*	1. Annual Evaluation Tasks a. NJCEP Energy Efficiency Program Cost Benefit Analysis i. Avoided Costs Inputs/Assumptions Report ii. CBAs: Retrospective and Prospective iii. NJCEP Protocols for Estimating Energy Savings iv. Peer Benchmarking/Process Evaluation b. Energy Master Plan (EMP) and NJ Energy Data Center i. Develop & Maintain EMP Goal Metrics ii. NJ EMP Performance iii. Manage & update NJ Energy Data Center c. NJCEP Research Plan d. Facilitate Evaluation Meetings and other Contract Activities e. Management of 3rd Party Studies f. Contract Management and Administration	RCGB
	2. FY20 One-Time Priorities a. Review of CBA Methods, including Net-to-Gross and Non-Energy Benefits, and Code Compliance Attribution Best Practices b. Code Compliance Study c. Energy Efficiency Behavioral Pilot Study d. Strategic Energy Management (SEM) Pilot	RCGB
	3. FY20 One-Time Priorities a. Code Compliance Study b. Energy Benchmarking Program Study c. NJCEP Program Development Evaluations d. NJCEP Impact and Process Evaluations	3rd Party Subcontractor, Procured by RCGB
	4. 3rd Party Studies a. Solar Transition Study b. Electric Vehicle Opportunities and Impacts Study c. Feasibility Study of Clean Energy for NJ Transit Facilities d. Building & Equipment Baseline Studies e. Emerging Technologies Studies f. Marketing Study g. Other Clean Energy Evaluations	3rd Party Contractor, Procured by Treasury

<u>R&D Energy Tech Hub</u>

Building on our innovation ecosystem, the Clean Energy Program will sponsor research

and development of cutting edge clean energy technology. This will allow for home grown solutions to be developed to combat climate change and advance clean energy.

Outreach and Education

Sustainable Jersey

The BPU's Sustainable Jersey contract supports NCEP's goals through a robust program that builds a base of local support for clean energy initiatives, implements targeted programs to increase energy efficiency and renewable, and researches new programs and strategies to leverage local capacity to advance clean energy goals.

New Jersey Institute of Technology

The NJIT Center for Building Knowledge (CBK) provides high-quality and training on energy efficiency in the State of New Jersey and on select aspects of New Jersey's Clean Energy Program. In FY20, CBK will offer a series of activities designed to support and significantly expand the Learning Center offerings in four core education programs: Residential, Commercial and Industrial; microgrids; and Community Solar.
Project activities for the CBK include but are not limited to maintaining and expanding the CBK Advisory Group; updating and maintaining existing content and the CELC Website; developing and adding new materials and content; developing trainings and educational toolkits for various NJCEP Programs; and completing an annual report.

Clean Energy Conference

The Division of Clean Energy will host a Clean Energy Conference of FY20 that will continue to improve the visibility and exposure of NJCEP and advance the state's clean energy goals.

The conference will help educate the public about the benefits derived from the Clean Energy Program and the opportunities available through the program thereby increasing program participation. The conference will deliver a platform that will inform industry stakeholders about upcoming changes and enhancements to New Jersey's clean energy initiatives, thereby increasing New Jersey's national recognition as a leader in clean energy.

Workforce Development

As the clean energy economy continues to grow in New Jersey, we recognize that workforce development and training are key components of realizing our efficiency and generation goals. To that end, the Clean Energy Program will continue our outreach to contractors and trade allies for continuing education. Additionally, the BPU will work with the Department of Labor & Workforce Development on partnerships in emerging fields such as offshore wind.

Curriculum

The Clean Energy Program in conjunction with partner agencies and stakeholders will develop curricula around energy savings for elementary, middle school and high school students. In addition, career pathways and mobility options, such as electric cars, will be designed to showcase for high school students the emerging technologies available to them.

Attachment A: Fiscal Year 2020 Program Budgets

The following tables set out a detailed FY20 budget:

FY 2020 True-up Budget Revised February 14, 2020		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 -NJCEP + State Initiatives	**$560,087,029**	**$31,921,963**	**$11,643,954**	**$1,436,034**	**$493,922,823**	**$13,492,204**	**$7,670,051**
State Energy Initiatives	$87,089,000	$0	$0	$0	$87,089,000	$0	$0
Total NJCEP	**$472,998,029**	**$31,921,963**	**$11,643,954**	**$1,436,034**	**$406,833,823**	**$13,492,204**	**$7,670,051**
EE Programs	**$363,973,480**	**$15,422,258**	**$1,637,741**	**$1,411,034**	**$333,248,505**	**$12,083,942**	**$170,000**
Res EE Programs	**$80,423,549**	**$4,998,046**	**$162,426**	**$447,000**	**$67,441,845**	**$7,374,232**	**$0**
Residential Retrofit	$33,030,482	$2,719,211	$81,213	$420,000	$27,133,335	$2,676,722	$0
RNC	$17,053,370	$1,279,875	$40,606	$27,000	$14,871,077	$834,812	$0
EE Products	$30,339,697	$998,960	$40,606	$0	$25,437,433	$3,862,698	$0
Res Low Income	**$45,500,000**	**$2,317,112**	**$1,109,857**	**$814,034**	**$39,614,446**	**$1,474,551**	**$170,000**
Comfort Partners	$45,500,000	$2,317,112	$1,109,857	$814,034	$39,614,446	$1,474,551	$170,000
C&I EE Programs	**$176,551,452**	**$7,167,394**	**$324,852**	**$125,000**	**$166,160,107**	**$2,774,100**	**$0**
C&I Buildings	$117,238,236	$5,329,610	$243,639	$75,000	$109,379,921	$2,210,066	$0
LGEA	$4,682,806	$881,824	$40,606	$25,000	$3,420,348	$315,028	$0
DI	$54,630,410	$955,961	$40,606	$25,000	$53,359,838	$249,006	$0
Multi-family EE	**$4,909,605**	**$939,706**	**$40,606**	**$25,000**	**$3,443,234**	**$461,058**	**$0**
Multi-family	$4,909,605	$939,706	$40,606	$25,000	$3,443,234	$461,058	$0
State Facilities Initiative	**$56,588,873**	**$0**	**$0**	**$0**	**56,588,873**	**$0**	**$0**
State Facilities Initiative	$56,588,873	$0	$0	$0	$56,588,873	$0	$0
Distributed Energy Resources	**$30,344,823**	**$629,060**	**$40,606**	**$0**	**$29,476,650**	**$198,507**	**$0**
CHP - RE Storage	$21,204,823	$629,060	$40,606	$0	$20,414,085	$121,072	$0
RE Storage	$140,000	$0	$0	$0	$135,000	$5,000	$0
Fuel Cells	$5,000,000	$0	$0	$0	$4,927,565	$72,435	$0
Microgrids	$4,000,000	$0	$0	$0	$4,000,000	$0	$0
RE Programs	**$8,280,623**	**$724,638**	**$40,606**	**$25,000**	**$3,000,000**	**$1,209,755**	**$3,280,623**
Offshore Wind	$3,280,623	$0	$0	$0	$0	$0	$3,280,623
Community Solar	$3,000,000	$0	$0	$0	$3,000,000	$0	$0
SREC Registration	$2,000,000	$724,638	$40,606	$25,000	$0	$1,209,755	$0
EDA Programs	**91,007**	**91,007**	**$0**	**$0**	**$0**	**$0**	**$0**
Planning and Administration	**$19,203,097**	**$3,555,000**	**$9,925,000**	**$0**	**$1,503,668**	**$0**	**$4,219,428**
BPU Program Administration	**$3,555,000**	**$3,555,000**	**$0**	**$0**	**$0**	**$0**	**$0**
BPU Program Administration	$3,555,000	$3,555,000	$0	$0	$0	$0	$0
Marketing	**$4,000,000**	**$0**	**$4,000,000**	**$0**	**$0**	**$0**	**$0**
New Marketing Contract	$4,000,000	$0	4,000,000	$0	$0	$0	$0
CEP Website	**$400,000**	**$0**	**$400,000**	**$0**	**$0**	**$0**	**$0**
Program Evaluation/Analysis	**$4,219,428**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,219,428**
Program Evaluation	$3,969,428	$0	$0	$0	$0	$0	$3,969,428
Research and Analysis	$250,000	$0	$0	$0	$0	$0	$250,000
Outreach and Education	**$6,958,668**	**$0**	**$5,525,000**	**$0**	**$1,433,668**	**$0**	**$0**
Sustainable Jersey	$742,085	$0	$0	$0	$742,085	$0	$0
NJIT Learning Center	$691,583	$0	$0	$0	$691,583	$0	$0
Conference	$750,000	$0	$750,000	$0	$0	$0	$0
Outreach, Website, Other	4,775,000	0	4,775,000	0	0	0	0
Sponsorships	**$70,000**	**0**	**0**	**0**	**$70,000**	**0**	**0**
Sponsorships	70,000	0	0	0	70,000	0	0
New Initiatives	**$51,105,000**	**$11,500,000**	**$0**	**$0**	**$39,605,000**	**$0**	**$0**
Community Energy Grants	**$1,000,000**	**$0**	**$0**	**$0**	**$1,000,000**	**$0**	**$0**
Storage	**$4,105,000**	**$0**	**$0**	**$0**	**$4,105,000**	**$0**	**$0**
Electric Vehicles	**$30,000,000**	**$0**	**$0**	**$0**	**$30,000,000**	**$0**	**$0**
NJ Wind	**$4,500,000**	**$0**	**$0**	**$0**	**$4,500,000**	**$0**	**$0**
R&D Energy Tech Hub	**$4,500,000**	**$4,500,000**	**$0**	**$0**	**$0**	**$0**	**$0**
Workforce Development	**$2,500,000**	**$2,500,000**	**$0**	**$0**	**$0**	**$0**	**$0**
Curriculum	**$4,500,000**	**$4,500,000**	**$0**	**$0**	**$**	**$0**	**$0**

New Jersey's Clean Energy Program™
Fiscal Year 2020 Program Descriptions and Budget

Energy Efficiency and Renewable Energy Program Plan Filing

FY20 Compliance Filing
Rev 1.0

January 8, 2020

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Table of Contents

Table References

Introduction

This Fiscal Year (FY) 2020 (FY20) Compliance Filing presents the program plans, budgets, and anticipated savings of the initiatives of *New Jersey's Clean Energy Program*™ (NJCEP).[1]

Administered through the Office 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.

FY20 Budgets

Budget information for the programs that will be implemented by TRC and its partner/subcontractors (TRC Team) can be found in Appendix F: FY20 Program Budgets.

FY20 Savings Goals

Energy savings projections for the programs that will be implemented by the TRC Team can be found in Appendix G: FY20 Program Goals and Performance Metrics.

Transition & Revisions to Interim Programs

To give the market and stakeholders time to prepare, and for general good order, there will be a transition during FY20: (a) from the FY19 Residential Gas & Electric HVAC Program (*WARM*Advantage and *COOL*Advantage)(HVAC) and FY19 Existing Homes (Home Performance with ENERGY STAR®) (HPwES) to the new FY20 Existing Homes Program and (b) from the FY19 Commercial and Industrial (C&I) New Construction and Retrofit Program,(Smart Start), FY19 Pay for Performance Programs (New Construction and Existing Buildings), FY19 Large Energy Users Program, and FY19 Customer Tailored Energy Efficiency Pilot to the new FY20 C&I Buildings Program. (The expiring programs are sometimes referred to as "Interim" or "Stub" programs.") In addition, the transition to the new Multifamily Program will continue during FY20. Board Staff and/or NJCEP's Program Administrator have notified and/or will be notifying the public and stakeholders regarding the details of the transition(s). Until and except as provided in those notifications, the requirements and incentives applicable to the foregoing expiring Programs during FY19 will continue to apply to applicable projects and applications, subject to the following immediately effective revisions[2] and, for the Interim C&I Programs, as set forth in the Incentive Tables that can be found at Appendix I (Interim Program Incentive Tables) of the present FY20 Compliance Filing:

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[1] This FY20 Compliance Filing only addresses the programs that are implemented by TRC as Program Administrator (TRC, Program Administrator, or PA). Comfort Partners is an NJCEP program that is implemented by the utilities and as such will be described in a separate filing submitted by the utilities. NJCEP funds are also directed to other state energy programs managed by Board Staff that are addressed in a separate Compliance Filing.

[2] Which may be subject to a short, to-be-announced grace period or transition period similar to past NJCEP practice in this regard.

1. FY19 Existing Homes Program (HPwES)

   a. Discontinue the "residential direct install" pilot because of its low participation rate and because it is more cost-efficient to encourage efficient residential lighting through the re-launched Energy Efficient Products Program than through the pilot.

   b. Decrease the interest rate for a $15,000 Program-subsidized loan from 4.99% to 0.99%.

   c. For measures installed at any existing building (including an existing Multifamily building to which this Program applies) (a) located within a designated Urban Enterprise Zone (UEZ) or occupied by those of low or moderate income (LMI)[3](in the case of an existing Multifamily building to which this Program applies, a building identified as Affordable Housing[4]):

      1. Add an enhanced incentive of $500 for Tier 2, $750 for Tier 3, Level 1, and $1,000 for Tier 3, Level 2; and

      2. Increase the incentive cap to 80% of project costs.

2. Residential HVAC: WARM*Advantage* and COOL*Advantage*:

   a. Increase incentives for heat pumps as follows:

      1. Heat Pump Water Heaters – From $500 to $750.

      2. Central Air Source Heat Pump- Tier 1 (SEER ≥ 16 EER ≥ 13 & HSPF ≥ 10) – From $300 to $600.

      3. Central Air Source Heat Pump- Tier 2 (SEER ≥ 18 EER ≥ 13 & HSPF ≥ 10) – From $500 to $1,000.

      4. Cold Climate Mini-Split Heat Pump - Single ductless indoor unit (SEER ≥ 20 EER ≥ 12 & HSPF ≥ 12) – From $500 to $1,000.

      5. Cold Climate Mini-Split Heat Pump – Multi- and ducted indoor units (SEER ≥ 20 EER ≥ 12 & HSPF ≥ 10) – From $500 + $200/additional indoor unit to $2,000 per system.

   b. Delete the requirement that Cold Climate Mini-Split Heat Pumps be approved by NEEP and replace it with technical requirements set directly by the Program Manager that are identical to those set for FY20 Existing Homes.

   c. Add as newly eligible equipment Air-to-Water Heat Pumps with Integrated Domestic Hot Water, with the same efficiency and same incentive amount as Cold Climate Mini-Split Heat Pump – Multi- and ducted indoor units.

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[3] The definition of LMI will be developed with Board Staff and communicated to stakeholders prior to the implementation of enhanced incentives for those of LMI.

[4] "Affordable Housing" means any housing that an official document identifies as participating in a federal, state, or local affordable housing program. This includes, by way of example only, the New Jersey Department of Community Affairs listing of Affordable Housing available here https://www.state.nj.us/dca/divisions/codes/publications/developments.html, as well as official documents showing identification by the documents regarding New Jersey Housing and Mortgage Finance Agency, United States Low Income Housing Tax Credit (LIHTC), and United States Housing and Urban Development (HUD).

d. Increase the required minimum efficiency for Gas Tankless On-demand Water Heaters from 0.81 to 0.90 UEF, following the U.S. Department of Energy's (DOE's) recent increase of the baseline UEF for these units to 0.81 UEF

3. C&I New Construction and Retrofit (Smart Start) and Customer Tailored Energy Efficiency Pilot:

a. Make the following Incentive revisions/additions in response to changing market conditions:

1. Add the following new measures and incentives:

A. Low Flow Faucet Aerators - $2 to $4 per unit.

B. Low Flow Showerheads - $10 - $15 per unit.

C. Domestic Hot Water Pipe Wrap Insulation - $1 - $2 per linear foot.

D. Refrigeration Floating Head and Suction Controls - $50 - $75 per ton.

2. Revise the following incentives:

A. Increase the incentive for the following lamp types from $1/lamp to $2/lamp: R14, R16, G16.5, G25, PAR16, PAR20, R20, BR20.

B. Increase the level for the following lamp types from $1/lamp to $3/lamp: G30, G40, PAR30, PAR40, R30, BR30, BR40.

3. Add new fixture incentives for Accent Light Line Voltage ($15), Linear strip ($10), & Under-cabinet ($10).

4. Delete all incentives for LED Decorative Candle, LED Decorative, & LED Inseparable SSL because those items are no longer listed by ENERGY STAR.

5. Increase the incentive for the following types of light fixtures:

A. LED Wall-wash lights – Increase from $30/fixture to $55/fixture.

B. LED Stairwell and Passageway Luminaires – Increase from $40/fixture to $45/fixture.

C. LED Architectural Flood and Spot Luminaires – Increase from $50/fixture to $75/fixture.

6. Delete all incentives for LED shelf-mounted display and task lights because those items are no longer listed by DLC.

7. Revise the incentives for lighting controls so that only controls for LEDs would be eligible.

8. Add locations such as atriums, stairwells, and hallways to the places eligible for lighting controls incentives.

b. Add an enhanced incentive equal to an additional 100% of the incentive values set forth below in the C&I Prescriptive Incentives Table, but subject to a cap of the applicant's cost for the project (material and labor), for measures installed at an existing building (including an existing Multifamily building to which this Program applies) (a) located within a designated UEZ or Opportunity Zone (OZ) or (b) owned or operated by a K-12 public school or a county or municipal entity.

c. Delete the requirement that applications for incentives of <$100,000 for Prescriptive Lighting, Performance Lighting, and Lighting Controls receive approval through the Program prior to installation of the subject equipment.

4. Pay for Performance: New Construction (P4P NC)

   a. Increase the bonus incentive for pre-design energy efficiency planning from $0.02/conditioned square foot to $0.04/conditioned square foot; increase the related maximum from $10,000 to $20,000.

   b. Remove the incremental cost caps; incremental costs will no longer need to be calculated for applications to this Program.

   c. Add the ability to calculate energy savings target on a "source energy" basis (e.g., kBtu/sf) in addition to the existing "energy cost" basis. The Program Guide and/or other appropriate program materials will prescribe site-to-source energy conversion factors and energy rates.

5. Pay for Performance – Existing Buildings (P4P EB):

   a. For all K-12 public school and county or municipal facilities, and for C&I facilities located in a UEZ or OZ, incentives 2 and 3 will be subject to a project cost cap of 80% (rather than 50%) and will be eligible to receive an incentive double the dollar per energy value saved by other participants. (For example, the incentive for electric savings would be doubled from $0.18-$0.22/kWh to $0.36-$0.44/kWh (combined incentives 2 and 3)). Multifamily facilities to which this Program applies and (i) which are also located in a UEZ or (ii) which are also Affordable Housing (as defined in this document) will also be eligible for the above-described higher cap and incentive.

   b. Add the ability to calculate energy savings target on a "source energy" basis (e.g., kBtu/sf) in addition to the existing "energy cost" basis. The Program Guide and/or other appropriate program materials will prescribe site-to-source energy conversion factors and energy rates.

Residential Energy Efficiency Programs

General Overview

NJCEP offers a broad range of opportunities for New Jersey's homeowners and tenants to save money by making their homes or apartments more energy efficient. NJCEP ensures that reasonably priced efficient lighting and appliance choices are available when new products are being purchased. The Program works with homebuilders to support the incorporation of energy efficiency into the design and construction of new homes. In addition, the Program builds the capacity and capability of market participants for safely and effectively upgrading the efficiency of existing homes. This Compliance Filing provides program descriptions, goals, and budgets for the residential energy efficiency programs that will be implemented by the TRC Team[5] in FY20:

- Residential New Construction Program
- Existing Homes Program
- Energy Efficient Products Program

Detailed information regarding each of these programs follows.

[5] As previously mentioned, Comfort Partners, an NJCEP program that targets low-income residents, is implemented by the utilities and is not addressed in this Compliance Filing.

Residential New Construction Program

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 Program has the long-term objective of transforming the market to one in which a majority of residential new construction in the state is "net zero-energy," i.e. extremely efficient buildings whose low energy needs can be met by renewable energy generation.

The 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 Program (MFHR), EPA ENERGY STAR Multifamily New Construction (MFNC) Program, and U.S. Department of Energy (DOE) Zero Energy Ready Home Program (ZERH). The 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 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: (i) as a Home Energy Rating System (HERS) Provider approved by an EPA-Approved Verification Oversight Organization (VOO); and (ii) 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 Program is focusing on building stronger relationship with the participating builders through the development and use of a Builder's Participation Agreement clarifying the builders' relationship with the 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 projects. The 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 and build homes that contribute to New Jersey's energy reduction efforts. Incentives are offered both to partially offset the incremental construction costs associated with building higher efficiency homes and to generate interest and enthusiasm for the Program among builders and homeowners.

As previously mentioned, the transition to the new Multifamily Program will continue during FY20. Once Path C of the new Multifamily Program is fully implemented, new multifamily buildings having five (5) or more Dwelling Units will be eligible to participate only in that Multifamily Program, while new multifamily buildings having less than five (5) Dwelling Units will continue to be eligible for this RNC Program.

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).[6] 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 home.
3. Builders and designers are not proficient with the energy code requirements that the Program requires them to meet and 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 Program-participating home to drive demand;
8. Limited awareness of the Zero Energy Ready Home 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.

This Program employs several key strategies to overcome these barriers including:

- Direct financial incentives to builders of homes that meet program standards.
- A new 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 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 Zero Energy Ready Home 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.
- 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

[6] I.e., a baseline home which, among other things, is defined and used in the NJCEP Protocols to Measure Resource Savings.

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, and as such 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 utilizing 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 Zero Energy Ready Homes[7] 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% 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 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+ eligibility requirements.

ENERGY STAR Multifamily High Rise / ENERGY STAR Multifamily New Construction

On January 1, 2019, EPA launched its new ENERGY STAR Multifamily New Construction (MFNC) Program that combines low-, mid-, and high-rise buildings under one program. By January 1, 2021, EPA will cease using its predecessor programs for any multifamily 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

Until Path C of the new NJCEP Multifamily Program is fully implemented, newly constructed 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. As previously mentioned, once Path C of the new Multifamily Program is fully implemented, new multifamily buildings having five (5) or more Dwelling Units will be eligible to participate only in that Multifamily Program, while new multifamily buildings

[7] https://www.energy.gov/eere/buildings/guidelines-participating-doe-zero-energy-ready-home-program

having less than five (5) Dwelling Units will continue to be eligible for this RNC Program. The target market for this RNC Program is homebuilders and raters.

For buildings and projects registered in this RNC Program during FY20 and thereafter, the Decision Tree used in the new ENERGY STAR Multifamily New Construction Program, which set forth at this Compliance Filing's Appendix E: EPA ENERGY STAR Multifamily Decision Tree, will be used to determine which ENERGY STAR Program will apply to the building or project.

The RNC Program will also enroll any existing home/building undergoing substantial ("gut") renovation or remodeling that meets the above criteria.

Projects participating under this RNC Program are not eligible for participation or incentives under any other NJCEP program, including but not limited to the Residential HVAC Program (*COOL*Advantage/*WARM*Advantage) or Existing Homes Program, for any building envelope components, equipment, or appliances that were included as part of application to this RNC Program.

Program Requirements

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

The technical details presented below address most, but not all, program requirements. The full technical specifications for RNC Program compliance are available upon request. The ENERGY STAR Certified Homes and Zero Energy Ready Home 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[8] including:

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

Zero Energy Ready Home

Meet or exceed all DOE Zero Energy Ready Home Performance Path technical standards[9] including:

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

Zero Energy Home + RE

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

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[8] ENERGY STAR Certified Homes: https://www.energystar.gov/newhomes/homes_prog_reqs/national_page

[9] Zero Energy Home Standards https://www.energy.gov/eere/buildings/zero-energy-ready-home

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

Meet or exceed EPA ENERGY STAR MFHR Program standards[10] including:

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

ENERGY STAR Multifamily New Construction

Meet or exceed EPA ENERGY STAR Multifamily New Construction (MFNC) Version 1.1 performance path standards[11] including:

- Meet or exceed the ENERGY STAR Multifamily New Construction 1.1 following either the Energy Rating Index or ASHRAE pathways.
- Complete all ENERGY STAR Multifamily New Construction 1.1 mandated checklists.

Incentives

The Residential New Construction Program incentive tables can be found in Appendix A.

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, the applicable code is IECC; for MFHR 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 / Low- and Moderate Income Resident Bonus

This RNC Program will offer bonus incentives for eligible homes located in UEZs or that are, or will be, Affordable Housing.

ZERH Rater Incentive

This 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.

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[10] https://www.energystar.gov/partner_resources/residential_new/program_reqs/mhrp/program

[11] Multifamily New Construction Standards:
https://www.energystar.gov/newhomes/homes_prog_reqs/multifamily_national_page#site-built

Cooperative Marketing

The Cooperative (co-op) Marketing Incentive offers cost-sharing for pre-approved advertising placed by contractors participating in the Existing Homes 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 FY cap per contractor is $75,000 for contractors listed as HPwES or Comprehensive Pathway trade allies and $50,000 for contractors listed as trade allies for other programs or pathways. Contractors seeking to utilize the Program should contact coop@NJCleanEnergy.com.

Planned Program Implementation Activities for FY20

The following program implementation activities will be undertaken in FY20. The Program will:

- Implement the changes and updates described above.
- Observe DCA's timeline for adoption of the 2018 version of the IECC code, and, if and as appropriate, make any changes to the Program that are necessary to conform to that adoption, including potentially developing a corresponding UDRH.
- 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.
- Provide technical training to help raters, builders, and associated trade allies become more familiar with the IECC 2015/18 code and ENERGY STAR Multifamily New Construction requirements, as well as training regarding H-QUITO, ZERHs, and other relevant topics.
- 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 Zero Energy Ready Home pathway.
- 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 assure 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, the TRC Team will perform inspections and conduct oversight processes on raters and projects. Quality Assurance activities will continue to be performed by the TRC Team 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.

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

Existing Homes Program

Program Purpose and Strategy Overview

In this Compliance Filing, the WARM/COOLAdvantage (i.e., HVAC) and Home Performance with ENERGY STAR® (HPwES) Programs are merged into a new "umbrella" Existing Homes Program. The goal is to offer a single-entry point, fully flexible program that allows homeowners to participate at a level that meets their specific needs and connects them with contractors that can operate within the contractors' "sweet spot." In recent years, NJCEP incentives for retrofits at existing homes have been provided only through two distinct program offerings at opposite ends of the spectrum of residential retrofits: prescriptive single measure mechanical upgrades (i.e., WARM/COOLAdvantage) and full comprehensive whole-house projects (i.e., HPwES). Some homes' energy efficiency improvement needs fall between the two, which was a significant barrier to participation under the previous program structures. The new umbrella program fills the gap in the middle of the program by adding special incentives for projects that fall short of a comprehensive whole house upgrade but nonetheless bundle two or more measures.

The umbrella Existing Homes Program permits homeowners and landlords of smaller buildings to address their buildings' immediate needs and to also incorporate additional upgrades in phases over time. It includes bonuses for projects where bundling mechanical upgrades with complementary envelope upgrades will enhance comfort and savings and capture what would otherwise be lost energy savings opportunities. The desired outcome for the NJCEP is increased participation (by both homeowners and contractors) resulting in increased energy savings. The Program's intent is to continue participation in DOE's nationally recognized HPwES Program while expanding the NJ market share. Contractors are now able to offer different pathways such as single measure, multiple measure, or comprehensive projects. They can choose a prescriptive track, with no energy modeling, or a performance track, with energy modeling. The merged program will reduce administrative costs for all parties and create a basic entry level for insulation contractors to install attic air sealing, duct sealing, and insulation measures following a prescriptive approach with associated incentives. This new program expands prescriptive measure offerings to cover many of the measures previously available only through a comprehensive, whole house approach. The Program allows for a customer-centric approach where the customer has the flexibility to, among other things, install one or a few energy-saving measures and return in the future to install more measures.

Overall, this new approach moves toward maximizing savings for NJCEP dollars spent by increasing participation at all levels, especially in the Multi-measures Pathway, where currently there is no ability to capture the incremental savings opportunities associated with envelope upgrades that occur when a homeowner upgrades his or her mechanical systems.

As part of the merger, certain elements of the HVAC and HPwES programs have been modified as described elsewhere. During FY20, the new merged program will replace the expiring programs in a manner and on a schedule to be announced.

As previously mentioned, the transition to the new Multifamily Program will continue during FY20. Once Path C of the new Multifamily Program is fully implemented, multifamily buildings having five (5) or more Dwelling Units will be eligible to participate only in that Multifamily Program, while multifamily buildings having less than five (5) Dwelling Units will continue to be eligible for this Existing Homes Program or the HPwES Program, whichever is in effect at the relevant time.

Program Description

The pathways that will be offered are as follows:

- Single measure.
- Multi-measures (bundling of two (2) or more building envelope and/or mechanical/HVAC measures).
- Comprehensive projects (following either the Prescriptive Track or the Performance Track).

The purpose of offering incentives for single measures is to promote the installation of energy-efficient equipment, air sealing, ductwork, and insulation upgrades in a high-quality manner through the use of incentives, supply chain support, and customer outreach and education.

The bonus incentive offered for bundled multiple measures is to address the HVAC and insulation contractors that have historically focused their businesses solely on the sales and installation of the products they offer while ignoring the interdependency of energy-efficient equipment and energy-efficient building envelopes. Significant opportunities exist to expand their business practices to combine multiple upgrades to capture energy savings and increase their customers' satisfaction through improved efficiency and comfort.

Through the Comprehensive Pathway, contractors will be participating in the nation-wide HPwES Program, which is a home efficiency improvement program administered by the U.S. Department of Energy (DOE). The Program encourages contractors (primarily insulation/HVAC contractors, and remodelers) to pursue an integrated, "whole house approach" to energy efficiency and home improvement, providing customers comfort while making their homes healthier and safer.

The Program and its pathways are designed to address the existing market barriers to participation, which include, among others, the following:

- The higher initial purchase price of energy efficient systems.
- High cost associated with implementing a comprehensive retrofit package.
- Consumers' inability to differentiate, and therefore value, the difference between good- and poor-quality installations.
- Consumers' lack of information and awareness about the Program's available incentives and the benefits of combining the installations of high-efficiency equipment and envelope upgrades to increase energy savings, resolve health and safety issues, and improve home comfort.
- On-going training needs for contractors on key installation issues, including proper installation methodologies, proper HVAC sizing and utilization, and proper venting and other health and safety issues.

The Program employs several key strategies to address these barriers, which include, among others, the following:

- Offer financial incentives for the purchase and installation of energy efficient cooling, heating and water heating equipment, air sealing, insulation, duct sealing and insulation meeting or exceeding the criteria of national and regional standards such as ENERGY STAR.
- Provide information aimed at consumers to help them make better energy saving purchase decisions, which also provide better comfort, health and safety in their homes.
- Utilize a state-wide Outreach Team to promote high-efficiency equipment and insulation upgrades and available incentive offerings through the distributors/manufacturers.

- Offer effective sales training for contractors providing them with the appropriate sales tactics (i.e., how to sell energy efficiency).
- Offer technical training for contractors on several topics, including: (i) quality installation practices (including, for example, the use of Manual J and Manual S for proper sizing and selection of equipment), (ii) health and safety concerns regarding combustion appliances, and (iii) building science principles.
- Collaborate with regional and national efforts to amplify program influence with support for market-wide initiatives (such as emerging technologies & specification revisions) that advance the interests of the Program.

Target Market and Eligibility

The Program targets customers that are in the market for several reasons, such as a desire to replace older inefficient or non-functioning equipment, high energy bills, remodeling, comfort issues, or general home improvement. The Program is designed for New Jersey households served by an investor-owned utility and residing in existing one- to four-family homes (attached or detached) of three (3) stories or less. Among other things, duplexes and townhouses[12] that meet the foregoing criteria are eligible. In addition, limited funding may be available from the U.S. Department of Energy for a State Energy Program (SEP) grant that would allow fuel oil, propane, and municipal and cooperative electric utility customers (in other words, customers of non-investor-owned electric and gas companies) to participate in the Program. The Program also targets HVAC, insulation, and remodeling contractors looking to expand their business. Any contractor holding the licenses and/or registrations required by applicable law to perform the measures covered by the Program are eligible to participate at some level and those holding Building Performance Institute (BPI) GoldStar designations are eligible to participate at higher levels.

Program Delivery and Requirements

An online portal will be available for applicants to electronically submit applications and required documents. The portal will also allow applicants to manage their projects and track the status of applications in process.

Contractors participating in the Program must meet the following requirements, as applicable:

- Contractors are required to hold current versions of all licenses and registrations, and to obtain and maintain current versions of all permits, in each case that are required by applicable law to perform the type of work they perform. For projects that require a permit, the permit number, a copy of the permit, or, if the required permit is a building permit, the application for the building permit, must be submitted as part of the NJCEP application process.
- Spray foam insulation contractors must hold a spray foam certification from a recognized spray foam agency, such as from the Spray Polyurethane Foam Alliance Professional Certification Program (PCP) or Center for Polyurethane Industry (CPI), or from the manufacturer of the foam product they are installing.

[12] As defined by building code, i.e., a single-family dwelling unit constructed in groups of three (3) or more attached units in which each unit extends from foundation to roof and with open space on at least two (2) sides,

- HVAC installations are required by code to be sized in accordance with ACCA Manual S based on accurate loads calculated in accordance with ACCA Manual J.[13]
- Air conditioners and heat pumps are required to be installed by licensed HVAC contractors.
- Contractors who install eligible building envelope air sealing and insulation measures are required to either (a) hold a BPI Building Analyst Certification or a BPI GoldStar designation, or (b) attend an NJCEP-sponsored Building Envelope Training and sign an NJCEP Participation Acknowledgement.
- Contractors installing duct sealing and duct insulation are encouraged, but not required, to attend NJCEP training classes that include system airflows, such as the HVAC Best Practices or HVAC Commissioning classes.
- Contractors participating in the Comprehensive Pathway must hold a BPI GoldStar designation. In addition, all contractors are encouraged, but not required, to have a person on staff who holds a BPI Building Analyst Certification and to themselves hold a BPI GoldStar designation.

Along with the above required documentation applicable for all pathways, there are specific requirements for each specific pathway, which include, among other things, the following:

- Single Measure Pathway - Each measure included on the application must meet all associated minimum requirements as specified in the applicable table in Appendix A**.**

- Multi-Measures Pathway - At least two (2) measures must be included on the application and each measure must meet all associated minimum requirements as specified in the applicable table in Appendix A**.** The measures may consist of the applicant's choice of equipment, ductwork, and/or building envelope measures.

- Comprehensive Pathway - All Comprehensive Pathway projects must begin with an energy assessment in accordance with a BPI Building Analyst Standard. In the Performance Track, energy savings must be calculated using the Program's designated software tool. All applications must include either (a) the minimum number of measures specified for the Prescriptive Track or (b) the minimum modeled energy savings percentage specified for the Performance Track, in each case as specified in the applicable table in Appendix A**.**

  For applications following the Prescriptive Track, (i) each measure included toward the minimum count of measures shall meet the minimum requirements as specified in the Appendix A tables entitled Incentives for the Single Measures Pathway (Equipment or Building Envelope)**,** and (ii) to ensure comprehensiveness, no more than two (2) of the same equipment measure type may be included in the count (e.g., no more than two (2) air conditioners, no more than two (2) heating units (i.e., boilers and/or furnaces). In addition, all applications must include attic air sealing as a measure unless the applicant demonstrates that the subject attic has already been sealed in accordance with the Program's technical requirements.

  For applications following the Performance Track, measures included in the calculation of total energy savings shall meet the minimum requirements as specified in New Jersey

[13] Because this is a Code requirement, NJCEP no longer requires the submission of load calculations.

Home Performance with ENERGY STAR Eligible Measures document posted on the NJCEP website (or such other similar document posted on that website).

Outreach

The Outreach Team consists of Account Managers, who cover strategically-assigned territories throughout the state. The team will continue to expand the relationships with HVAC equipment manufacturers and distributors and work with insulation manufacturers to reach a network of insulation contractors in New Jersey. The team will identify contractors that have the aptitude and resources to expand their business scope and participate in the Program and/or in higher levels of the Program.

Presenting in front of contractor groups at technical trainings has proven successful as the team has developed relationships with contractors, leading to increased participation in the Program and therefore increased energy savings. These presentations are being continued, and opportunities to further engage with insulation contractors will be explored by, e.g., identifying trade shows they attend and presenting training to them.

Additional outreach efforts will also involve further engagement with Sustainable Jersey, the NJ utilities, NJIT and other trade organizations. The Cooperative Marketing incentives described below are also expected to contribute to the success of the Program's outreach efforts.

Offerings and Incentives

To, among other things, avoid market confusion, the new umbrella Existing Homes Program incentives are designed to align generally with the pre-existing programs' incentives. That said, the new umbrella program also includes new single measure incentives for heat pumps that will help achieve E.O. 28's goal of shifting from fossil fuels to clean energy sources. The available incentives are as follows:

Single Measure Pathway

The Single Measure Pathway offers prescriptive incentives for furnaces, boilers, central or mini-split air conditioners or heat pumps, water heaters, air sealing, insulation, duct sealing, and duct insulation as specified in the Appendix A tables entitled Incentives for the Single Measures Pathway (Equipment or Building Envelope)**.** This Pathway does not provide for a contractor production incentive.

Multi-Measures Pathway

The Multi-Measures Pathway offers the same prescriptive incentives as the Single Measure Pathway plus a bonus incentive to applicants who install two (2) or more eligible equipment, ductwork, or building envelope measures. For example, a customer pursuing this Pathway could receive an incentive bonus for installing an efficient HVAC system and installing attic insulation. The incentive bonus would be as specified in the Appendix A table entitled Incentive for the Multi-Measures Pathway. This Pathway does not provide for a contractor production incentive.

Comprehensive Pathway

The Comprehensive Pathway offers cash incentives and low-interest financing. The Comprehensive Pathway provides incentives for projects following either the Prescriptive Track, which is based on the number of measures installed and for which the incentive amounts are as specified in the Appendix A table entitled Incentives for the Comprehensive Pathway, or the Performance Track, which is based on the percentage of estimated total energy savings to be achieved and for which the incentive amounts also are

as specified in the Appendix A table entitled Incentives for the Comprehensive Pathway. Until the new NJCEP Multifamily Program Path C is fully implemented, incentives for low-rise (i.e., ≤5 stories) multifamily projects will be as specified in the FY19 HPwES Multifamily Incentives tables.

Contractor Incentives

Participating contractors may also be eligible for a production incentive designed to encourage high-quality work and increased contractor participation in this Pathway. The production incentive would be as specified in the Appendix A table entitled Contractor Production Incentives**.**

In addition, the Program will continue to offer annual GoldStar Contractor Program reimbursements for all participating GoldStar contractors who successfully complete at least ten (10) Comprehensive Pathway projects during the applicable FY. This reimbursement will be 25% of the annual BPI GoldStar fee and will be processed upon presentation of the contractor's paid invoice showing the full amount of the GoldStar annual fee and confirmation that the contractor has successfully completed the requisite number of projects.

UEZ/LMI Bonus

This Existing Homes Program will offer bonus incentives for homes located in UEZs and/or occupied by LMI residents.

Cooperative Marketing

The Cooperative (co-op) Marketing Incentive offers cost-sharing for pre-approved advertising placed by contractors participating in the Existing Homes 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 FY cap per contractor is $75,000 for contractors listed as HPwES or Comprehensive Pathway trade allies and $50,000 for contractors listed as trade allies for other programs or pathways. Contractors seeking to utilize the Program should contact coop@NJCleanEnergy.com.

Planned Program Implementation Activities for FY20

The following program implementation activities will be undertaken in FY20:

- The FY19 HPwES air sealing and the insulation pilot will be discontinued once this FY20 Program is fully launched because pilot was successful, leading to its elements being included in this new Existing Homes Program.
- The FY19 HPwES “residential direct install” pilot has been discontinued because the re-launch of the EEP Program’s lighting component addresses most of the need addressed by this pilot.
- The TRC Team will work with Board Staff to develop and implement one or more methods for identifying the low- and moderate-income housing that will eligible for the enhanced incentives described elsewhere in this Compliance Filing.
- In coordination with Board Staff, review and consider the potential addition of an incentive for the conversion of homes heated with oil or electric resistance to high-efficiency cold-climate heat pumps.

- The TRC Team will continue to work with the NJ utilities that provide financing incentives to leverage these and any other applicable utility incentives, and to coordinate with the utilities to ensure programs offer complementary incentives to increase overall participation.
- The TRC Team will continue to work with its current lenders to offer financing incentives to certain applicants as described elsewhere in this Compliance Filing.
- The TRC Team will continue implementation of automated processes that reduce administrative costs and remove some of the paperwork requirements to simplify and ease contractors' participation.
- The TRC Team will provide trainings for and adopt the new ANSI/BPI-1200Standard Practice for Basic Analysis of Buildings replacing the Technical Standard for the Building Analysist Professional. This new standard provides greater detail and more flexibility on required work scopes for the BPI contractors and will soon provide a certification targeted at field installers.
- The TRC Team will (a) work with DOE to provide trainings to increase the number of contractors certified to offer customers the Home Energy Score (HES), (b) support participating and/or interested contractors by providing sales and business practice support/trainings to help contractors learn how to best sell features and benefits to homeowners, and (c) provide technical trainings to improve contractors' technical skills and support them in meeting the continuing education requirements for BPI certification.
- The TRC Team will continue to evaluate new technologies and installation practices.
- The TRC Team will continue to engage with potential partners and stakeholders, including insulation contractors, remodelers, and real estate industry professionals, Sustainable Jersey, distributors, and suppliers to increase program awareness and participation.
- The TRC Team will participate in the outreach activities described in the FY20 Outreach Plan.
- The Program will continue to pilot a residential Direct Install component to the Program (LEDs, water conservation measures) to capture additional savings, including for fuel saved as a result of water use reductions. The incentive tables for the pilot component can be found in Appendix A; the major elements of the pilot component are set forth immediately below:
    - The measures to be installed would consist of at least nine (9) items selected by the contractor and/or consumer from a published list of eligible measures.
    - Only those contractors accredited/certified to participate in the HPwES Program and/or FY20's Existing Homes Program's Comprehensive Pathway may participate.
    - Available only as part of project eligible for HPwES or FY20's Existing Homes Program's Comprehensive Pathway.
    - The incentive is $50 and is paid to the installation contractor; the energy efficiency measures would be provided and installed at no cost to the consumer.

Pilot Program for Renovations and Additions

During FY20, the Program Team would launch a new Pilot program offering incentives to homeowners who are planning home renovations and additions. The savings baseline for the existing portion of the home would be the initial conditions; the baseline for an addition would be the current energy code. Ekotrope, a RESNET approved software currently being used in New Jersey under the RNC program, recently developed the first-ever renovation and addition hybrid baseline algorithm that would be used for calculating the overall energy savings. To qualify for incentives, the total energy usage of the post-retrofit home, including the existing portion plus the addition, must achieve at least 5% savings over the usage of the pre-retrofit home. For the pilot, the incentives would be the same as those specified for the

Performance Track of the Comprehensive Pathway. More implementation details will be provided to participating contractors (including appropriate training), stakeholders, and the public during FY20.

Quality Control Provisions

The Program Team will encourage its participating contractors to continuously improve by providing feedback based on its reviews of energy modeling, submitted documents, and/or field inspections of completed projects. The Program Team will perform Quality Assurance inspections of a percentage of all jobs completed. These inspections assure that contractors maintain the high-quality standards expected of them and guard against misuse of program funds. If a project fails to meet program requirements, a Quality Assurance Inspection Report identifying the corrective action required to be taken will be given to the contractor. The implementation of the corrective action must be documented by the submission to the Program Team of the contractor's and the customer's written certification, as well as supporting photographs and/or other documentation as necessary or appropriate. Depending on its assessment of the submission and other factors, the Program Team may conduct a re-inspection, and it will, in any case, continue to work with contractors to resolve inspection failures as quickly and reasonably as possible.

The integration of these procedures, along with reducing contractor incentive for failed Quality Assurance inspections to lower the overall percentage of projects that must receive an inspection from the Program while recognizing and rewarding high performing contractors, is anticipated to help minimize overall program administration costs.

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

Energy Efficient Products Program

Program Purpose and Strategy Overview

The Energy Efficient Products (EEP) Program promotes the sale and purchase of ENERGY STAR certified and other energy efficient products including lighting, appliances and consumer electronics, while also supporting the "early retirement" and recycling of existing inefficient appliances in New Jersey households. Aligned and complementary to the other NJCEP programs, The EEP Program is focused on the reduction of plug load and lighting energy usage in New Jersey homes. The program strategy focuses on providing participants with knowledge and motivation to make efficient purchases, and on offsetting the initial price of higher efficiency products so they can do so affordably.

Providing relevant information to consumers most typically occurs through retail partners, and the EEP Program strategically invests in assuring that participating retailers have the information they need so their floor staff— the knowledgeable sales people who consumers rely on— can speak to the benefits of energy efficient purchase options. The Program also provides in-store Point of Purchase (POP) materials and signage to clearly identify promoted products and steer consumers towards them. The EEP Program seeks to capture the greatest savings possible at the lowest cost, while also making sure that opportunities are available through a wide range of retail channels and through creative promotions aimed at historically hard-to-reach customers. The EEP Program is designed to be nimble, especially with respect to the continued evolution of the lighting market, so that midstream adjustments to the product mix can be made as necessary to assure continued savings.

Program Description

The EEP Program provides targeted rebates and messaging to consumers, community partners, manufacturers, and retailers for the sale and purchase of selected energy efficient products. Rebates are intended to reduce the initial purchase price of energy efficient lighting and appliances, so their typically higher costs do not deter consumers from choosing them over less efficient alternatives. Messaging raises awareness of efficient options and of the benefits they can provide, and rebates provided by the Program make these products more affordable.

The Program employs several key approaches to deliver energy savings to New Jersey residents including:

- Educating consumers on the role energy efficiency can play in reducing home energy consumption;
- Supporting the availability of a range of affordably-priced energy efficient product choices for consumers through rebates and midstream/upstream markdowns;
- Offering marketing and training support for retailers, manufacturers and contractors selling energy efficient products to ensure that they can address the benefits provided by these products with customers;
- Sponsoring event-based initiatives and other innovative approaches to bring energy efficient technologies to hard-to-reach populations that have not historically participated in retail-based program approaches;
- Working with national government agencies, manufacturers, and retailers to help develop and introduce new energy efficiency offerings;
- Supporting and informing consumers regarding product recycling and disposal to address potential environmental impacts;

- Leveraging national energy efficiency programs, promotions, marketing materials, and advertising to support New Jersey initiatives; and
- Coordinating with NJ electric and gas utilities and other entities, such as Sustainable Jersey, to co-brand and leverage customer participation and savings.

The Program hopes to continue to transition towards relatively greater upstream and midstream initiatives that leverage manufacturer, distributor, and retailer incentives and marketing dollars. These approaches have high potential to increase the sales volumes of efficient products when compared with rebate programs that require consumers to fill out a form for each purchase. In FY20, the Program will continue to explore ways to expand the proportion of the Program that incorporates the upstream/midstream approach with additions that support specific efficient appliances. The Program will also offer training support to new retailers, manufacturers, and other organizations while continuing to maintain existing partner relationships.

Target Market and Eligibility

The target market for the EEP Program is all New Jersey consumers who purchase lighting, appliances, and other energy consuming devices in retail stores across the state. The appliance recycling component also targets all New Jersey residents who have older working refrigerators, freezers, room air conditioners (RACs) and dehumidifiers that typically consume considerably more electricity than comparable newer efficient models.

Offerings and Incentives

The EEP Program will continue to offer promotions and incentives in three different product categories:

- Lighting
- Appliances and Consumer Electronics
- Appliance Recycling

Lighting

The Lighting component reopened during FY19. It will continue to offer retail price incentives through upstream markdown and creative markdown promotions for qualified lighting products. Lighting products will be limited to ENERGY STAR-certified Light Emitting Diodes (LEDs). Due to recent changes to the ENERGY STAR specification, LEDs have become the dominant efficient lighting option, competing directly with halogens. However, some non-certified LEDs have begun to squeeze ENERGY STAR-certified LEDs off the shelves, which may lead to customers making quick purchasing decisions that favor those lesser quality bulbs over ENERGY STAR-certified LEDs and could ultimately lead to customer disenchantment with all LEDs. Eligible lighting products will be as set forth in the table immediately below:

Table 1: Eligible LEDs

LED Bulb Tier Effective Date	Bulb Lifetime	Availability in Stores
ES LEDs V2.1 – specification released 12/31/15; eff. 1/1/17	15,000+ hours	Currently in stores

Through an RFP process, incentives are provided for eligible products (up to a negotiated volume) sold by selected New Jersey retailers during promotional periods. Incentives vary by type of product and/or distribution channel, based on negotiations with manufacturers and/or retailers. Based on experience with the earlier initiatives and regional promotions, the FY20 maximum incentives will be as shown in Table 2 below:

Table 2: Lighting Program Incentives

Product Type	Subtype	Maximum Per Bulb/Fixture Incentive
Standard LED	Standard Omni A-Line	$3.00
Specialty LED	BR, Globe, PAR, R, Torpedo, Flame Tip, Other Decorative, 3-way	$5.00
LED Fixture	Retrofit Kit, Portable, Hardwire	$8.00

In addition to the retail markdowns described above, the Program will continue to support Creative Outreach and Education Promotions, the goals of which are to:

- Create awareness through events that attract consumers and provide opportunities to disseminate program information and interact with consumers to answer questions;
- Educate consumers on the benefits of energy efficient lighting and appliances;
- Encourage consumers to move beyond the "first step" of using energy efficient lighting products and to take the next step to adopt more significant energy efficiency measures;
- Create awareness and encourage adoption of no/low cost methods of reducing energy consumption (such as addressing standby loads, the use of advanced power strips etc.); and
- Focus on hard-to-reach residential market channels that have not been well-served through the markdown lighting initiative.

A lighting sub-component will provide selected eligible lighting products to food banks, non-profits and social service agencies serving the economically disadvantaged for distribution to their patrons, all at no cost to the organizations or their patrons. The initial effort will be a staged approach, working with existing creative outreach partners, to implement a statewide sub-component through food banks in early FY20. An RFP process will be used to solicit partners to implement a more robust and sustained full-scale statewide sub-component later in FY20. The foregoing should increase electrical energy savings in this market segment. The cost of the lighting products will be passed through to NJCEP as a rebate, grant, or other direct incentive.

Appliance and Consumer Electronics

The Appliance and Consumer Electronics component will continue to offer downstream mail-in rebates on clothes washers, clothes dryers and refrigerators purchased by NJ customers. Customers are able to apply via a traditional paper application or through an online application. The Program will also offer midstream rebates on appliances and advanced power strips with retail partners based on market opportunities. These incentives will be supported with a variety of promotional approaches, including leveraging the Environmental Protection Agency's (EPA) national ENERGY STAR campaigns.

The Program will continue to offer mail-in (or online form), midstream or point-of-sale incentives in partnership with New Jersey retailers for promotion of higher performance ENERGY STAR clothes washers, clothes dryers, refrigerators, and advanced power strips. Incentives for two tiers of performance will be offered for clothes washers, clothes dryers, refrigerators, and advanced power strips to promote higher efficiency levels to New Jersey residents. Also, in FY20, the Program will begin to offer rebates on ENERGY STAR air purifiers, dehumidifiers and room air conditioners.

The program performance criteria for clothes washers in FY20 will align with the ENERGY STAR v8.0 specification. The higher tier incentive for washers will align with the current Consortium for Energy Efficiency (CEE) Tier 2 specification to support increased market share of the highest efficiency models.

For refrigerators, the program performance criteria in FY20 will align with the ENERGY STAR V5.0 specification. Similar to washers, the higher tier incentive for refrigerators will align with the current EN Tier 2 specification to support increased market share of the highest efficiency models.

For clothes dryers, the program performance criteria in FY20 will align with the ENERGY STAR V1.1. The higher tier incentive will align with the criteria for the 2018 ENERGY STAR Most Efficient Product.

For air purifiers, dehumidifiers and room air conditioners, there will be just a single incentive tier.

Through the midstream promotion process, certain retailers are able to provide an "instant" rebate at the register. If the retailer does not participate in the midstream promotion, consumers will be able to submit rebates for clothes washers, refrigerators and dryers in two forms: online via the NJCEP website or by mail.

The Program will continue to provide midstream point-of-sale incentives for advanced power strips in a tiered structure similar to that utilized for appliances. A Tier 1 unit requires manual control and a Tier 2 unit is designated by its ability to provide automatic active power management. These will be offered through participating retailers or through partners in the Creative Markdown Promotions, or both.

The appliance and consumer electronics incentive table can be found in Appendix A.

Appliance Recycling

The Appliance Recycling component offers residential customers the opportunity to recycle their old, inefficient refrigerators and freezers in exchange for a "bounty" incentive payment. Small commercial customers are also eligible if they meet program requirements. In addition, the Program provides the option of customers receiving an additional rebate for recycling room air conditioners and dehumidifiers when a refrigerator or freezer is already being picked up for a household. Customers can call or go online to schedule a pick-up appointment. NJCEP uses a third-party vendor to provide turnkey program implementation. The vendor manages the appointment scheduling, confirms customer and unit eligibility, conducts the pick-ups, transports the units to a recycling facility, and oversees their decommissioning.

In FY20, the Program will continue to promote and facilitate the early retirement of inefficient, working appliances. Implementation will include:

- In-house appliance pickup and direct access to participants;
- Tracking of individual units and recording of the recovery and destruction of all hazardous materials in compliance with the EPA's Responsible Appliance Disposal (RAD) guidelines; and
- Evaluating retail partnerships that support removal and recycling of refrigerators and freezers at the time of new product purchase.

In FY20, the Program will continue to offer a $50 incentive to New Jersey residents and small commercial/businesses for turning in their working old, inefficient primary and secondary refrigerators and freezers for recycling, and a $25 incentive for recycling a room air conditioner or dehumidifier. The room air conditioners or dehumidifiers would be secondary units, so a customer could only recycle them in conjunction with a larger unit (refrigerator/freezer). In other words, the recycling vendor would not schedule a pick-up at a customer's home just for a room air conditioner or dehumidifier. The customer would need to be recycling a larger unit in order to recycle the smaller one and receive a rebate.

The planned Program incentives are shown in Table 3:

Table 3: Appliance Recycling Incentives

Product Type	Terms	FY20 Incentive
Refrigerator/Freezer	Limit 2 TOTAL per year per residential customer	$50
Room Air Conditioner (RAC)/Dehumidifier	Limit 2 of each per year per residential customer	$25

General Activities

The TRC Team, in consultation with Board Staff, will maintain the existing retailer base and recruit new retailers as needed. The Program will continue to leverage retailer participation in developing and distributing collateral and "point of purchase" (POP) materials for product groups and in providing retail associate training and generating consumer awareness at the point of product display. The Program Manager's Retail Outreach Team will also continue to promote the Program at NJCEP sponsored events.

National ENERGY STAR Promotions

The Program will participate in applicable and appropriate National ENERGY STAR promotions. For example, because NJCEP offers both a rebate on a new ENERGY STAR refrigerator purchase and the recycling of an older refrigerator, the Program will continue to support the EPA's "Flip Your Fridge" campaign. NJCEP will advertise the campaign on the NJCEP website by leveraging materials developed by the EPA for "Flip Your Fridge" participants.

National Meetings

The TRC Team will attend the National ENERGY STAR Lighting, Appliance and Consumer Electronics Partners Meetings to showcase New Jersey's innovative work on efficient products, to learn new best practices to incorporate with the Program, and to meet with national manufacturers and retailers to discuss New Jersey promotions.

Quality Control Provisions

For promotions featuring customer rebates, such as the appliance rebate and recycling promotions, documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all rebate program participants. All applications are reviewed as they are processed for verification of the documentation that the equipment meets program requirements. Each application

and its information are entered into a database that allows checking for duplicate applicants through an equipment serial number comparison.

For promotions that include markdowns taken at the point of sale, such as the lighting promotions, the Retail Outreach Team visits the participating storefronts on a regular basis to verify that program products have been received and have been displayed properly and are priced according to program requirements. If necessary, they will help unpack the products, and put them on display with the required program materials, as well as train sales staff about program rebates and the energy savings a customer might expect from purchasing a program product. Performance reports, including photos of program products and signage, are provided to the Program Managers to assist in evaluating retailer feedback, developing future promotions and selecting the most effective proposals.

When invoices are received for marked down products, they are reviewed to ensure that the sales meet all program stipulations. These include verification that the products were sold in a participating location; incentive amounts are correct and for the stipulated products; final retail prices are correct; and total allocation amount has not been exceeded. All of these conditions must be met in order for payment to be processed for each sales period.

The TRC Team 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 Commercial & Industrial (C&I) Energy Efficiency Programs are designed to help New Jersey's businesses use electricity and natural gas more efficiently so that they can be competitive and successful in their industries while retaining and creating jobs and improving the environment. The C&I suite of programs includes the following programs targeting the commercial and industrial market segments: Local Government Energy Audit (LGEA), Direct Install (DI), and C&I Buildings.[14]

The Programs are designed to:

- Provide information on how to meet and exceed current energy code requirements so that buildings operate 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 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:

- Unfamiliarity or uncertainty with energy efficient building technologies and designs;
- Bias toward lower first 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 which often do not align with incentive structures and energy efficiency considerations.

The Programs employ a comprehensive 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 commercial and industrial customers, with a focus on small businesses, local government entities, and schools and on specific sectors such as wastewater treatment facilities, healthcare facilities, and data centers;

[14] As described in the Introduction to this Compliance Filing, there will be a transition during FY20 from certain of the FY19 programs to the new FY20 programs.

- Consistent incentive levels for efficient electric and gas equipment and design practices to permanently raise efficiency levels;
- Prescriptive incentives for pre-identified energy-efficient equipment and custom incentives for more complex and aggressive measures to permanently raise the efficiency levels of standard equipment;
- Comprehensive, performance-based opportunities that emphasize building operation and performance in addition to the efficiency of installed equipment;
- 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
- A wide range of programs designed to meet the needs of a diverse set of customers including nonprofit entities, local governments, and small and large business.

Unless specifically stated in the following program descriptions, customers eligible for incentives under New Jersey's Commercial & Industrial Energy Efficiency 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 Societal Benefits Charge (SBC) fund. With the exception of the new construction segment, applicants to any of the NJCEP C&I Programs must be contributors to the SBC fund within the previous twelve (12) months.

Construction projects are subject to prevailing wage requirements pursuant to L. 2009, c. 203, which amends L. 2009, c. 89, as well as the prevailing wage regulations promulgated by the New Jersey Department of Labor and Workforce Development pursuant to L. 1963 c. 150 as amended, and N.J.A.C. 17:27-1.1 et seq. and Affirmative Action rules. Unless otherwise stated, by applying to the Program and receiving program incentives, customers self-certify that they are complying with prevailing wage requirements.

Local Government Energy Audit Program

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 (Applicants).

The goal of the energy audit is to provide Applicants with information on how their facilities use energy, identify energy conservation measures (ECMs) that can reduce energy use, and put Applicants in a position to implement these ECMs. The energy audits also guide Applicants towards appropriate NJCEP funded 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.

Program Description

This Program is implemented as follows:

- The Applicant will submit a pre-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) before the Applicant submits additional information regarding utility accounts and associated bills, and other applicable energy usage information for each building in the scope.
- Available energy audit paths include:
    - ASHRAE Level I audit[15];

[15] From the ASHRAE Handbook:

Level I – 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.

Level II – 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.

Level III – 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.

    - ASHRAE Level II audit, except for lighting which follows ASHRAE Level III guidelines;
    - Add-on scope audits (e.g., a more detailed review of an existing or potential CHP or renewable energy system added on to the scope of a standard audit).[16]
- When an Applicant is enrolled in LGEA and participating in any NJCEP equipment incentive programs at the same time for the same facility(ies), the Program Manager will assess the impact that 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:
    - Proceed with energy audit and equipment upgrades (minimal impact);
    - Complete equipment upgrades prior to proceeding with energy audit process or vice versa (moderate impact);
    - 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 http://www.nj.gov/treasury/purchase/noa/contracts/t3009_16-x-23938.shtml, and the related Technical Proposal and Contract (#A40225).
- In order to provide compatibility with the Energy Savings Improvement Program (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. In addition, 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 $100,000 per FY, per Applicant. 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 $100,000, the Program Manager will work with the Board's Staff (Board Staff) to determine and authorize a larger cost cap, not to exceed $300,000. Additionally, 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 $100,000 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 C&I / Multifamily / DER Entity Incentive Caps in Appendix B of this Compliance Filing).

Target Markets and Eligibility

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

- "State contracting agency" as defined by N.J.S.A. 52:34-35

[16] 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.

- "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)
- Nonprofit charitable organizations per Section 501(c)(3) of the Internal Revenue Code

Applicants may apply for an energy audit for buildings that they own, although 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 12 months of electric utility bills (inclusive of all accounts in the building) in order to qualify to participate in LGEA. Buildings that do not meet this requirement will be recommended to apply for the Direct Install Program. The Program Manager will have the ability to grant exceptions to the kW requirement, on a per building basis, if the Applicant can demonstrate they meet 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 one building is unknown;
3. Demonstrates:
    a. The scope of one or more measures the Applicant would like to pursue is not available in the Direct Install Program; or
    b. The type of building is not a good fit for the Direct Install Program (e.g., it is an industrial building).

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 (3) 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.

Quality Control Provisions

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all LGEA participants. All applications are reviewed upon receipt to verify adherence to eligibility requirements and technical information. Applicant-supplied information is entered into the database and electronic files are created for all documents, including project correspondence. The Program Manager will perform internal quality assurance reviews on audit reports.

On an annual basis program quality control staff will accompany each LGEA auditor on a visit to a randomly selected LGEA applicant's facility to verify that the audit is conducted in accordance with proper protocols and to ensure the accuracy of the audit in documenting the facility's detailed building survey. Quality control staff will also regularly conduct technical reviews of full audit reports; the selection of projects will be based on a pre-determined, random sampling percentage. Finally, audit pricing will be reviewed by the Program Manager for consistency and compared to LGEA historical data, referencing similar facilities for comparison.

The TRC Team will, if and to the degree applicable, utilize the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

Direct Install Program

Program Purpose and Strategy Overview

The Direct Install Program was established in 2009 to address the unique barriers experienced by the small business sector that resulted in a historical reluctance or inability to pursue energy efficiency improvements, even when they would yield significant economic benefits. Small businesses in New Jersey, as elsewhere, frequently lack the ability to acquire funding for capital improvements, and almost universally lack the in-house expertise to identify economically advantageous energy efficiency projects in which to invest. Perhaps even more critically, small business owners tend to be spread thin, so that even if projects could be identified, and even if funding could be obtained, the decision-makers simply do not have time to prioritize them— the time and energy required simply exceed what is available.

The Direct Install Program is a turnkey offering that provides small business customers with a single source for financial incentives, information, and technical assistance. Designed specifically with these customers in mind, the Program works through a set of approved contractors who are empowered to promote, enroll, audit, and then install energy efficient measures. The use of fully trained and qualified contractors to provide customers with energy efficiency assessments, effective measure recommendations and installation, and access to incentives that cover up to 70%, and in certain cases up to 80%, of the total project costs creates a powerful engine to transform this sector of the C&I market that has historically been unable to participate in the NJCEP Programs at desired levels.

In additional to small businesses, local government entities, non-profit organizations, certain multifamily buildings (that meet the eligibility criteria described below), and certain religious facilities may be eligible to participate in the Program in certain cases.

Background

The Direct Install Program addresses the unique needs of New Jersey's small business community.

Program Description

The Direct Install Program offers eligible small business customers the opportunity to replace existing inefficient equipment with more energy efficient systems. Municipal and other local government agencies that have successfully participated in the Local Government Energy Audit Program are also eligible. The Program provides turnkey services including technical assistance, financial incentives, and education to encourage the early replacement of existing equipment with new high efficiency alternatives. A variety of electric and natural gas energy-using systems are eligible for improvements including lighting and lighting controls, refrigeration, HVAC and HVAC controls, variable speed drives, and water conservation measures. The Program strives to include a comprehensive package of cost-effective energy efficiency improvements in each customer's project.

Target Market and Eligibility

The Direct Install Program is open to all eligible commercial and industrial customers who contribute to the SBC fund whose average demand, averaged over the preceding 12 months, is less than or equal to (≤)

200 kW.[17] This small business sector targeted by the Program tends to have a historical reluctance or inability to fund energy efficiency improvements. In addition, their small size tends to exclude them as beneficiaries of services from other energy service providers. Religious facilities[18] which are metered residentially will be permitted to participate in the Direct Install Program. Applicants will be required to meet all other program requirements.

Program Offerings and Incentives

The Direct Install Program provides turn-key services by offering customers a consistent source of technical assistance, installation services and financial incentives. The Program will be delivered across the state by the Program Manager in association with multiple regional contractors (contractors) who will be selected via a Request for Proposal (RFP) process to deliver installation and related services. Contractors will work in conjunction with material suppliers (vendors), who will be selected under a separate competitive RFP process.

All contracts with vendors and contractors will be negotiated to establish consistent, statewide pricing. All equipment proposed must be cost effective per program rules and, depending on the project, certain equipment may not be considered cost effective. Eligible equipment categories include but may not be limited to:

- Energy efficiency T8 & T5 lamps, ballast and fixtures
- ENERGY STAR approved LED lamps
- Design Lights Consortium (DLC) Qualified LED Fixtures
- HVAC & HW controls
- LED Exit Signs
- Occupancy Sensors
- VFDs
- ENERGY STAR Programmable Thermostats
- ENERGY STAR/High Efficiency Boilers (up to 1,500,000 Btuh)[19]
- ENERGY STAR Furnaces (up to 140,000 Btuh)[20]
- High Efficiency Cooling Systems
- ENERGY STAR Products
- Refrigeration Measures

[17] Note that a potential participant with multiple facilities sharing a common gas utility account would be eligible so long as the average kW demand of the facilities sharing that account ≤ 200kW.

[18] Refers to buildings that are used as places of worship. This includes churches, temples, mosques, synagogues, meetinghouses, or any other buildings that primarily function as a place of religious worship. It also refers to non-residential buildings that are associated with religious organizations, such as religious schools and religious community centers, but not convents or rectories.

[19] In cases where the existing boiler is oversized, the existing larger boiler may be evaluated and considered for replacement as long as the replacement unit does not exceed 1,500,000 Btuh.

[20] In cases where the existing furnace is oversized, the existing larger furnace may be evaluated and considered for replacement as long as the replacement unit does not exceed 140,000 Btuh.

- Other measures may be added after evaluation by the Program such as retro-commissioning measures which may include rooftop HVAC tune-ups, refrigerant charges, filter replacements, controls adjustment, and optimization.

In K-12 public and private schools where the facility has an existing boiler that does not exceed 3,000 kBtuh in output heating capacity, the contractor will have the ability to propose a new system that comprises multiple modular boilers in series as an appropriate replacement, based on the total output heating capacity and efficiency of the existing boiler. A minimum efficiency level of 93% will be enforced.

Contractors will be solely responsible for boiler project design, providing proper training to the applicant, and developing and providing load calculations to the applicant and the Program Manager. Further, the contractor will be required to work with township code enforcement officials to ensure the installation meets all current local and state codes and standards.

Customer incentives are offered to reduce the cost of installing energy efficient equipment and are based on the total installed cost of the retrofits. The incentives are as follows:

	Eligible to Participate	Eligible to Participate & Project is an ESIP	Eligible to Participate & in a UEZ or OZ[21]	Eligible to Participate & a K-12 Public School or County/Municipal Entity
% of the Installed Cost of Cost-Effective, Approved Measures	70%	70%	80%	80%
Project Incentive Cap	$125,000	$125,000	$250,000	$250,000
Program FY Entity Cap	$250,000	$500,000	$4,000,000	$4,000,000

Incentives are paid to the installation contractor and the contractor will invoice the customer for the remaining balance of the installation.

Open Program for Contractor Participation

If an applicant wishes to utilize their own contractor, rather than the pre-selected regional contractor for their area, the Program Manager will work with the applicant's contractor to confirm that the contractor:

1. Meets all of the Program's bid requirements.
2. Agrees to the Program's set pricing.
3. Participates in program training provided by the Program Manager.
4. Signs the Direct Install Program Participation Agreement.

[21] As defined in the C&I Incentive Table at Appendix B below.

If all requirements are met, the contractor will be allowed to participate in the Program. If the applicant's contractor is unable to meet these requirements, the applicant will be given the option to proceed in the Direct Install Program utilizing an approved contractor for that specified geographic area, or continue with their contractor outside of the Program with the option to access other available NJCEP programs.

Program Financing

Some, but not all of the local utilities have provided 0% interest, on-bill repayment for Direct Install projects in their service territories. This offer has been extremely effective in making it easier for business to participate. The Program Manager will continue to work with the BPU to explore the potential to expand the availability of financing for Direct Install projects statewide, either through on-bill repayment or other financing options.

Direct Install Team Responsibilities

The Program Manager will be responsible for the following program components:

- Review and approval of all projects' Scopes of Work before installation to confirm program eligibility and cost effectiveness.
- Final review and approval of all projects which have been completed through the execution of the Program's Measure Acceptance Form for incentive finalization.

Direct Install Participating Vendors will be responsible for the following program components:

- Providing offered program equipment required for installation statewide for all approved Direct Install projects.
- Ensuring all provided equipment meets or exceeds the Program's minimum efficiency requirements and guidelines.
- Packaging and shipping of all procured program equipment to the specific project site or Contractor.
- Providing all manufacturer's specifications/certifications and equipment warranties for all installed program equipment to the installation contractor.

Direct Install Participating Contractors are responsible for the following program components:

- Completing Direct Install Program training provided by the Program Manager.
- Program marketing within their assigned program territories.
- Educating the applicant on the Direct Install Program, completing the Program application, gathering utility information, and pre-qualifying an applicant.
- Performing site visits and collecting existing equipment inventory and energy usage data, analyzing information and identifying opportunities for efficiency improvements, and making preliminary recommendations.
- Submitting completed energy assessments, using the Program's Energy Assessment Tool (EAT), to the Program Manager for review and approval.
- Presenting finalized comprehensive recommendations to the customer, including costs and savings estimates, obtaining customer agreement to proceed with installation, and the collection of the balance of projects costs owed by the program applicant (≥ 30% of the total project cost). The customer agreement will be a standard agreement approved by the Program.

- Submission of completed and executed scope of work (SOW), including pre-implementation report to the Program Manager for review and approval. All measures identified in the Direct Install Scope of Work are subject to the Program's Total Resource Cost (TRC) test, which is utilized to screen out measures that are not cost-effective. (Note that a participant would be given the option of retaining measures that fail the TRC test by the participant agreeing to bear sufficiently more of the cost of the measure to bring the Program's share of the cost to within the required TRC score. For example, a participant would have the option of increasing its share of the cost of a new furnace to 37%, instead of the usual 30%, if that increased share would increase project's TRC score to the required level.)
- Procurement of all approved program equipment from the Program's selected equipment vendor for lighting and refrigeration. Contractor is responsible for providing all HVAC and mechanical equipment associated with the Program. Contractor is also responsible for procurement of all ancillary equipment required for complete installation.
- Installation of eligible measures per the SOW, including obtaining all appropriate permits.
- Submission of post-implementation report, including payment request. The Program Manager will review all post-implementation reports and either forward the incentive (≤ 70%) as approved for payment or send back to the contractor with questions or issues for resolution.
- Providing program applicant with all installed equipment technical manuals, manufacturer's specification/certification sheets, and warranties for all equipment and labor.
- Providing a one-year warranty on all labor and equipment.
- Tracking and reporting on program activity as requested by the Program Manager, including, but not limited to:
    - Inventory of equipment replaced, including quantity, type, location, and hours of use;
    - Estimates of energy (kWh &/or therms) and demand (kW) savings and total project costs;
    - Installation schedules; and
    - Coordinating the proper disposal of all removed equipment.

Delivery Methods

The Direct Install Program will be managed by the Program Manager and will be delivered by a competitively selected pool of contractors and equipment suppliers (vendors). The Program will be available to eligible commercial and industrial customers statewide. (Note that, as indicated in the General Overview section for the C&I Energy Efficiency Programs in this Compliance Filing, existing facilities must be contributors to the SBC to be eligible.)

For material pricing (vendors), the Program Manager will reserve the right to renegotiate and/or rebid pricing annually. For installation pricing (contractors), the Program Manger will provide a 2-year contract with an optional 1-year extension, and it will reserve the right to renegotiate pricing at these trigger points, or rebid for these services.

Contractors will be informed when program changes are anticipated based on changes in market conditions and/or the strategic direction of the Program and adjustments will be made as needed during the term of their contract.

The Program Team will, as applicable, utilize its contractual rights, its common law rights, and the Contractor Remediation Procedures as necessary or appropriate to address significant performance or other problems.

Quality Control Provisions

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all Direct Install Program participants. 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 Manager performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence. A sample of applications will be selected for quality control file review and site inspections.

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

C&I Buildings Program

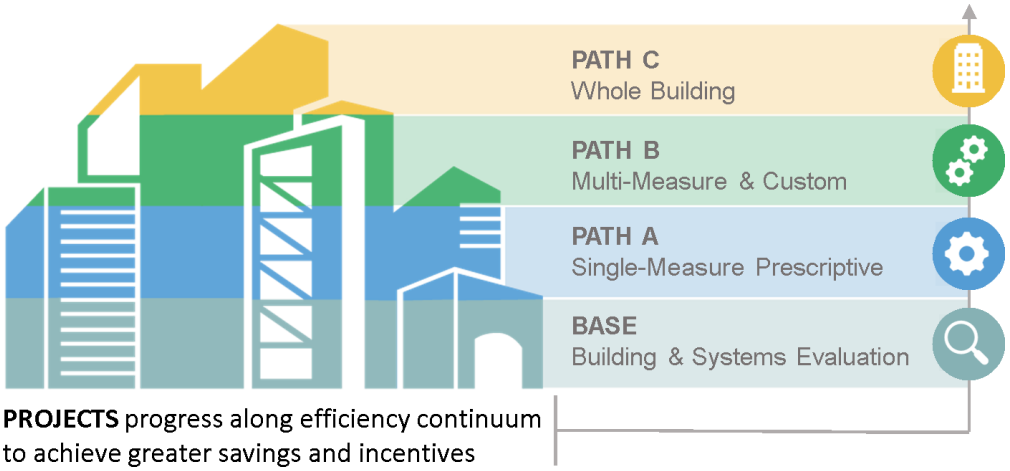
Program Purpose and Strategy Overview

This Program provides financial rebates and incentives to New Jersey's businesses for installation of energy efficient equipment. Through these incentives, businesses can reduce their utility costs and improve the environment, while remaining successful in their industries and promoting future growth.

The Program's primary goals are to encourage C&I customers to choose high efficiency equipment rather than standard efficiency equipment when making purchase or design decisions and when replacing aging, standard equipment in existing buildings. The Program Paths detailed below are meant to streamline participation by removing participation barriers to put customers on the right Path based on their needs. The different Program Paths ensure all scopes of work, from simple to complex, have a method for receiving financial support.

Program Description

This Program provides financial rebates and incentives through different Paths, with the choice of Path determined by a customer's scope of work and desired level of engagement. Applications can be submitted by a customer or a customer's designated representative (e.g., contractor, engineer). Rebates are typically reviewed and paid after the work is completed, whereas savings-based incentives typically require approval before work commences. All rebates and incentives are available for existing buildings, renovations, and new construction (unless specifically noted otherwise).



BASE: Building and Systems Evaluation

Building and Systems Evaluation (BASE) provides 50/50 cost-sharing for site-specific technical assistance to private parties via third-party energy consultants that guide customers to a clear and informed energy improvement decision to implement certain energy conservation measures.

Customers will receive credible and objective technical services to inform and guide their clean energy management and resource decisions. The BASE component takes a site-specific approach that aims to tailor the implementation of energy efficient technologies to each facility. It also allows the TRC Team to better vet larger or more complex scopes of work earlier in their decision-making process, leading to more reliable energy savings and lower overall transaction costs. The inclusion of a customer cost-sharing

requirement as part of BASE ensures that customers "have skin in the game," which should help ensure the cost-effectiveness of the work performed through this component and contribute to customers' interest in moving forward to implement the energy conservation measures recommended by their BASE reports.

BASE addresses several market barriers that prevent customers from implementing energy conservation measures and strategies, including:

- The initial investment required to perform a facility specific technical energy assessment
- Lack of understanding with regards to energy usage and how to begin the process of developing energy saving strategies
- Understanding the benefits of both short-term and long-term energy reduction approaches and how they impact a business's bottom line

BASE will capture otherwise lost savings opportunities by filling a gap for those customers who have an interest in reducing their energy use and costs, but do not have the technical knowledge, in-house staff, and/or financial resources to take the first step.

Due to the proven higher rate of project implementation following this cost-share model,[22] BASE aims to achieve deeper savings at an increased participation rate. BASE also addresses a previously unserved segment of the NJCEP market,[23] which will provide additional energy savings that would otherwise go unaddressed. This will help maximize savings by capturing lost energy efficiency opportunities and driving customers to implement measures through other NJCEP programs.

BASE will qualify Program Energy Consultants (PECs) who will work with customers to provide technical assistance services. Eligible services are as follows:

- Energy studies such as ASHRAE Level II, III, or comparable analyses
- Targeted system or equipment upgrade evaluations
- Industrial process and data center efficiency analyses
- Peak load reduction strategies
- Combined heat and power and/or energy storage feasibility studies
- Retro-commissioning studies
- New construction planning and design review
- Energy master planning and strategic energy management
- Additional technical studies that the Program Manager determines will provide similarly cost-effective technical assistance to a Program participant

Customers may apply for a single study at a single property or at multiple properties.

Notwithstanding anything else, BASE incentives are <u>not</u> available for technical assistance:

- That has been provided prior to Program approval,

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[22] NYSERDA's Flexible Technical Assistance Program, which has been running since 1995, conducted an evaluation of that program in 2012. Results of this study showed that out of all the savings identified about 65% was installed following the FlexTech process. NYSERDA staff attribute their success to the cost-share model, which increases customer engagement and the comfort level of their pre-approved consultants.

[23] Although the LGEA Program provides technical assistance, it is available only to governmental, not private, entities.

- For new construction or for substantially renovated properties, or
- For equipment whose installation occurred, in whole or in part, at any time within the three (3) years prior to the BASE application.

Path A: Single-measure Prescriptive

Path A offers fixed value rebates for the most popular energy efficiency measures, i.e.:

- Lighting & Controls (not Advanced Lighting Control Systems (ALCS)[24])
- Heating, Ventilation, and Air Conditioning
- Domestic Hot Water
- Variable Frequency Drives & ECM Motors
- Refrigeration
- Food Service

These rebates are best suited for customers looking for a simple and rapid application process requiring a minimal amount of effort. Projects at both existing buildings and new construction sites are eligible to participate in this Path.

To participate in this Path, an applicant applying for an incentive ≥$100,000 for Prescriptive Lighting, Performance Lighting, and Lighting Controls must receive approval through the Program prior to installation of the subject equipment; all other applicants may install their measures without the Program's prior approval and submit their application and supporting documentation (e.g. invoice, tax documentation, equipment specs, etc.) to the Program Manager after installation. After completion, a project may be inspected for verification. Once approved, the determined rebate value is paid to the applicant or other designated company. Incentives must be applied for no later than twelve (12) months after equipment purchase. Applicants also have the option to submit their application prior to purchase or installation so as to obtain a pre-approval notice and thereby eliminate the risk of their equipment being deemed ineligible. This Path can accommodate, among other things, multi-site projects. Applicants may, at their choice, apply for a single measure at a single property, a single measure at multiple properties, multiple measures at a single property, or multiple measures across multiple properties. This Path will also accommodate making incentive progress payments either as individual measures or individual sites are completed.

Path B: Multi-Measure Prescriptive and Custom Measures

Path B is designed for properties falling between single-measure improvements (Path A) and a whole-building plan (Path C). This Path allows customers to install multiple measures at once, with a bonus tied to performing larger, multi-measure scopes of work. Path B combines fixed value rebates with Custom Measure incentives to encourage and reward deeper savings.

The fixed value rebates cover the same equipment, require compliance with the same equipment-specific rules, and are in the same amounts as per Path A.

Projects at both existing buildings and new construction sites are eligible to participate in this Path B.

[24] ALCS is eligible as a Custom Measure through Path B.

For Multi-Measure Prescriptive projects, the Program provides bonus incentives that increase with the number of measures in the bundle and the cost of the measure. For such projects:

- Participants can select any Multi-Measure bundle option listed in the Multi-Measure Bonus table in Appendix B of this Compliance Filing.
- A single project may only pursue a single option and its associated bonus.
- The Multi-Measure Bonus Incentive is paid after the last completed measure in the bundle is completed.
- Measures from two or more of the following End Use Categories must be included in the Multi-Measure bundle:
  - Lighting & Lighting Controls
  - HVAC – Electric and/or Gas
  - DHW Systems – Electric and/or Gas
  - Commercial Cooking – Electric and/or Gas
  - Variable Frequency Drive Systems (VFD)
  - Refrigeration
  - Custom Electric and/or Gas

For Custom Measure projects, incentives are based on a calculated $/kWh-saved and $/therm-saved basis. Custom Measure applications:

- Are for measures not covered by the prescriptive Path A incentives. Custom Measure applications can cover, e.g., advanced lighting control systems (ALCS), variable refrigerant flow HVAC, HVAC controls, a complete redesign and change in the layout and number of lighting fixtures.
- Require energy savings calculations.
- Must be approved by the Program Manager prior to installation.
- For retrofit projects, require that the energy baseline be determined based on existing conditions and that the Measure at least meet energy code (or, if not subject to the energy code, such other similar standard set by applicable law).
- For new construction/substantial renovation (i.e., gut rehab), the energy baseline will be determined based on the energy code and proposed project must exceed the code. Substantial renovation (gut rehab) is defined in applicable Program documents, including the Program Guide.

To participate in this Path, an applicant submits its application to the Program Manager prior to work starting. The application may, at the applicant's discretion, cover multiple measures either at a single property or at multiple properties. The application must contain all required information, including energy savings estimates and calculations, project cost, etc. The Program Manager will then perform a technical review of the application and may also conduct a pre-construction inspection before issuing a pre-approval notice with the determined incentive amount. Once the project is installed, the applicant must submit evidence of completion, such as invoices and required tax documents (as applicable), after which a project may be inspected for verification. Once approved, the determined incentive value is paid to the applicant.

Custom Measure equipment requires Program approval prior to installation. Applications regarding Non-Custom Measure equipment (i.e., the equipment identified in Path A above) must be submitted no later than twelve (12) months after equipment purchase. In addition, optional Program pre-approval of applications is available for customers seeking confirmation that their equipment is compliant with program requirements prior to equipment purchase and installation.

The cost to perform Custom Measure evaluations may be offset through BASE as described above if the applicant successfully completes the BASE process prior to submission of its Path B application.

Applications in this Path will accommodate, among other things, multi-site projects and the making of incentive progress payments as individual measures or individual sites are completed.

Path C: Whole-Building

Through this Path, a building or site will undergo a comprehensive energy audit, or, in the case of new construction, a comprehensive review of project plans. The Path is used to combine multiple measures into a single application with the goal of maximizing energy savings. Features of this Path include the following:

- Participants are required to work with a pre-approved contractor certified to provide services under this Path.
- Applicants are required to calculate projected energy savings using a building energy simulation program (e.g., eQuest, Trane TRACE, and others).
- Savings will be measured on a whole-building basis (total combined energy for all fuels in the facility), and incentives will increase with higher savings projections.
- Incentives will be paid on a per unit of saved energy (e.g., $/kWh, $/MMBTU, $/therm, $/sqft) basis, which incentives are designed to provide more generous incentives than Paths A or B would provide for installing a similar energy conservation measure.
- For new construction, incentives are based on the energy savings representing the difference between a code-compliant baseline building and the energy-efficient design the applicant intends to implement (not including any savings from renewable energy). A minimum of five percent (5%) energy savings (energy costs or source energy) is required and the project scope must have at least one measure addressing each of the following building systems: envelope, heating, cooling, and lighting (as applicable).
- For existing buildings, a minimum of 10% energy savings is required and include improvements in at least two (2) of the following areas: (i) lighting, (ii) heating systems, (iii) cooling systems, (iv) ventilation systems, (v) domestic hot water systems, and (vi) building envelope.
- For existing buildings, any equipment that is included in the calculation of energy savings must meet the minimum performance standards, if any, applicable to such equipment per Path A. For new construction, any equipment that is included in the calculation of energy savings must exceed minimum efficiencies set forth in ASHRAE 90.1-2013, or, if there is no such efficiency set forth for the particular equipment, the equipment must exceed the industry standard efficiency for the equipment.

The complete set of recommendations must be submitted to the Program Manager prior to work starting and must contain all required information including energy savings estimates and calculations, project cost, etc. The Program Manager will perform a technical review of the submittal and may also conduct a preconstruction inspection before issuing a pre-approval notice with the determined incentive amount. Installation of equipment or other measures may not be performed prior to the issuance of the pre-approval notice. However, following the Program Manager's preconstruction inspection (or waiver thereof), for good cause shown, and at the applicant's own risk that the application may ultimately be denied, the Program Manager may permit the applicant to proceed with some or all of the installation prior to the issuance of a pre-approval notice. Once the project is installed, the applicant submits evidence of

completion, such as invoices, after which a project may be inspected for verification. Once approved, the determined incentive value is paid to the applicant or designated representative.

The requisite whole building evaluations can in many cases be performed through the BASE component.

Path C Optional Add-On: Savings Verification Incentive

Path C projects can also qualify for optional add-on incentives by verifying the energy savings actually achieved during the first post-retrofit year. The requirements for the verification are as follows:

- Existing Buildings: A minimum of twelve (12) months of pre-retrofit utility bills is required for all energy (e.g., electricity, natural gas, gasoline, diesel, propane) used on-site, which pre-retrofit bills will be compared to twelve (12) months of post-retrofit utility bills (adjusted for any facility changes outside the scope of work) to establish actual source energy savings.
- New Construction: Applicants are required to submit evidence their project(s) achieved ENERGY STAR Certification, or if the subject building types is not eligible for ENERGY STAR Certification, evidence they achieved ASHRAE Building Energy Quotient (bEQ) In-Operation Certification.

The intent to apply for the subject savings verification incentive must be indicated during initial project submittal.

The availability of this option savings verification incentive is expected to help the Program ensure that estimated energy savings are actually achieved, collect valuable data regarding actual energy savings, and encourage participants to collect data that will confirm to them the value of their energy savings investments.

Rules Applicable to All C&I Buildings Paths

- All equipment must be new and permanently installed.
- Equipment must be listed by UL or other OSHA-approved Nationally Recognized Testing Laboratory (NRTL) in accordance with applicable U.S. standards, provided, however, that it need not be so listed if the equipment is not of the type subject to being so listed.
- Double-dipping is prohibited. I.e., once a measure is included in an application for any path, it may not be included in another application for the same or another path.
- Rebates are not available for equipment that previously received a rebate or incentives through any other NJCEP and/or other SBC-funded programs.
- Outdoor lighting can be considered an eligible measure so long as the lighting is on a customer meter for which the customer is contributing to the SBC.

Target Market

Those eligible to participate in the Program are those non-residential electric and/or gas customers of one of New Jersey's regulated electric or gas utilities who contribute (or will contribute, in the case of new construction) to the Societal Benefits Charge fund. Eligible projects include retrofits of existing buildings, new construction, and major renovations.

Program Offerings and Incentives

The Program will include fixed, per unit, rebate/incentive amounts for prescriptive technologies through Path A and savings-based incentives, i.e., $/kWh, $/MMBtu, $/sq.ft. or $/therm, for custom technologies

and whole-building improvements via Path B & C, respectively. It will also offer a 50/50 cost-share incentive for BASE services.

Those entities paying at least $5,000,000 in annual electric and natural gas costs (including delivery and third-party supply costs) across all their facilities contributing to the Societal Benefits Charge are deemed to be Large Energy Users.[25] They will receive different incentives for Path B and C than other participants, but they will receive the same incentives as other users for Path A, all as set forth in Appendix B to this Compliance Filing.

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 C&I market with a streamlined, single point of entry into the Program:

- Outreach Account Managers will work to build relationships with stakeholders within the C&I market through proactive engagement with business owners, contractors, and trade and professional associations. Special attention will be paid to small businesses, local government entities, and schools as well as to specific sectors such as wastewater treatment facilities, healthcare facilities, and data centers. Trained outreach staff will identify potential participants for this Program, offer high-level walk-through assessments to provide potential participants with the scale of the savings opportunity, educate potential participants about the benefits and costs of participation, and help identify the Program Path most-suited to each potential participant's needs and interests. Outreach staff will also assist participants in applying to the Program, connecting them with contractors from the trade ally network, and 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 help ensure Program compliance and successful receipt of incentives.
- The TRC Team will work with a trade ally network of pre-approved energy services companies, contractors, architects and engineers. These companies will be able to provide participants with in-depth energy analysis, including ASHRAE Level II audits, and to otherwise encourage and facilitate participation in the Program. Companies from the existing lists of Pay for Performance partners will be able to participate in a streamlined process to seek approval for inclusion in this trade ally network.
- A subset of the trade ally network will be qualified as Program Energy Consultants (PECs) who will eligible provide services through BASE, including the following:
  - Work with the customer and Outreach Account Managers (where applicable) to understand their needs and overall goals for identifying energy saving opportunities and strategies
  - Provide participants with objective technical analysis and expertise, including the preparation of scopes of work, schedules, and cost estimates for projects that will potentially become the subject of applications to the Program
  - Provide participants and the Program Manager with proposed scopes of work, schedules, and cost estimates for the BASE projects the PEC proposes to support

[25] This threshold results in approximately the same results as the previous more complicated and cumbersome method of calculating an assumed SBC contribution by assuming certain contributions per therm/kWh.

- Execute work approved by the Program Manager and customer, including:
- Provide draft Final Report to the Program Manager, including at least an overall project summary sheet, background, project description, project results/recommendations, economic analysis, and benefits. The report will also include itemized project implementation costs, cost estimates, and estimated energy savings calculations for the measures recommended in the report. Revise report as requested by Program Manager.
- Provide invoices to the Program Manager for review, approval, and payment processing and revise them as needed.

PECs will be competitively qualified based on scoring criteria that includes labor rates, technical qualifications, experience, past performance, if any, on previous NJCEP projects, and cost. The TRC team expects the initial list of approved PECs to consist of 15 to 20 PECs.

Quality Control Provisions

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all Direct Install Program participants. 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 Manager performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence. A sample of applications will be selected for quality control file review and site inspections.

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

Energy Benchmarking

NJCEP provides a free service that assesses the energy performance of facilities compared to similar buildings. Program representatives will track and score actual energy usage based on industry type and provide a detailed report along with valuable information on implementing energy-efficient technologies, including available financial incentives to lower project costs. Application materials and more information are available on the NJCEP website.

High Performance Building Competition Program

A competitive solicitation will be developed to provide awardees with lucrative incentives for especially high-performance facilities, such as those achieving net-zero or exceeding ASHRAE 90.1-2016 energy code by 5%. The specific award criteria and incentives offered by this Program would be developed in coordination with Board Staff. The development and/or implementation of this Program might coordination with an organization such as Habitat for Humanity. The Program might focus on facilities such as data centers, horticultural facilities, office buildings, schools and universities, multifamily housing, or municipal facilities. Although this Program is budgeted within C&I, its development could potentially include residential, multifamily, and other types of customers. Incentive awards would likely be contingent on the successful construction of the winning facility and verification of its energy performance.

Multifamily Energy Efficiency Program

Multifamily Program

Program Purpose and Strategy Overview

Historically, NJCEP 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 created some confusion for applicants, as a result there are missed savings opportunities.

Therefore, this Multifamily has been designed 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 paths.
- Provide dedicated multifamily technical outreach and assistance.
- Improve access for segments of multifamily housing that have been unable to participate in NJCEP because current multifamily offerings have not been a good fit.
- Streamline program administration.
- Increase participation and maximize savings for incentive dollars spent.

Target Market

- Buildings eligible to participate in this Multifamily Program have five (5) or more Dwelling Units[26] and a single owner or management entity (e.g., building owner, developer, management company, homeowners' association, condominium association, cooperative housing corporation or association).
  - The applicant is the single owner or management entity of the multifamily building. Individual residents of multifamily buildings are **in**eligible for the Multifamily Program but will be directed instead to any applicable Residential Programs.
  - Residential buildings of one to four Dwelling Units, and townhouses designed as single-family homes are **in**eligible for the Multifamily Program and will instead be directed to applicable Residential Programs.
- Eligible multifamily buildings also include certain types of multifamily housing, such as shelters, dormitories, and independent living facilities,[27] that resemble single-room occupancy buildings (SROs) and that also meet the five (5) units per building and single owner or management entity criteria. The SROs are eligible to earn reduced per-unit incentives that are scaled to the

[26] In this Compliance Filing, "Dwelling Unit" means 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. See N.J.A.C. 5:23-3.14 (adopting 2015 International Building Code, Sec. 202, but revising it to add "living as a single housekeeping unit."). See also N.J.A.C. 5:28-1.2 (similar definition).

[27] For the avoidance of doubt, the Multifamily Program is not available to assisted living, nursing home, and other similar institutional facilities. Instead, the various C&I Programs are available to those facilities.

considerably smaller living area typical of SRO-type housing as compared to that of conventional apartments. In this Compliance Filing, the individual living units in an SRO are called "SRO Units," and Dwelling Units and SRO Units are sometimes collectively called "Individual Units."

- Eligible energy efficiency measures can be 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).
- Properties eligible for the Multifamily Program will no longer be eligible for incentives under NJCEP's other residential or commercial programs but will instead participate in equivalent 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, which transition has already begun with the launch of Paths A and B in late FY19.
    - *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 the eligibility of the Local Government Energy Audit Program (LGEA) will continue to be eligible for no-cost energy audits through that Program.

Program Description

The Multifamily Program includes multiple program paths based on the needs and scope of each project. The multi-path approach rewards projects that take a more comprehensive approach to achieving energy savings, but also provides 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).

Path A: Single-measure:

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. More details regarding the General Requirements of this Path are as follows:

- The Multifamily Program incentives are available only for measures implemented by applicants to the Multifamily Program, i.e., the owner or managing entity of the entire Multifamily building as described in more detail in the Target Market subsection of the Multifamily Program section of this Compliance Filing.
- Incentives are available for both existing buildings and new construction, except where explicitly stated otherwise. Many specific measures, pieces of equipment, and technologies are also subject to additional specified requirements and restrictions.
- Unless elsewhere explicitly stated otherwise, incentives are available for equipment installed in Individual Units or in common areas, including outdoor areas, so long as the equipment's energy usage is on the building owner/manager's or tenant's meter and the owner/manager/tenant is contributing, or will be contributing as soon as the applicable building or unit is occupied, to the SBC through utility bill(s).

- In general, equipment in existing building projects must meet or exceed IECC 2015/ASHRAE 90.1-2013 requirements to qualify for incentives. New construction projects must exceed IECC 2015/ASHRAE 90.1-2013.
- All equipment must be new and intended as a permanent fixture of the building (i.e., cannot / will not be removed by tenant).
- 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.
- Additional requirements and restrictions regarding specific measures, pieces of equipment, and technologies are set forth in Appendix C to this Compliance Filing.

Path B: Bundled 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.). More details regarding this Path are as follows:

- 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 in Path C (Comprehensive/Whole Building). Further, prior to submitting a Path B Multi-Measure application, applicants are strongly encouraged to instead consider including the subject equipment/measure as part of a Path C application. This is because an application for Path C (Comprehensive/Whole-Building) incentives will not be accepted if the project is the subject of a Path B Multi-measure application at the time of the Path C application.
- All the General Requirements and requirements and restrictions regarding specific measures, pieces of equipment, and technologies applicable to Path A (Single Measure Prescriptive) apply also to this Path B.

Custom Measure Requirements:

- For measures not covered by the Path A 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).
- 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.

Multi-Measure Requirements:

- Participants can select any "bundle" listed below. Participants that successfully implement a bundled project will, upon project completion, be eligible for a bonus equivalent to 10% of the total base incentive for all the measures included in the bundle. Larger scopes of work should follow Path C or pursue additional measures through Path A.

- Each project will be eligible for a single bonus for completing a bundle. The bundle bonus applies only to the measures in the bundle. Any additional measures will be paid at regular incentive rate.
- Eligible measures in each bundle are listed in Path A (other than as noted below) and must meet all the requirements listed there.
- New construction bundles are assumed to apply to the whole building.

Table 4: Multi-Measure Bundles for Existing Buildings

Bundle Name	Measure Options	Requirements
Lighting Bundle	• In-unit fixtures • Common area fixtures • Exterior fixtures (attached to building) *Required:* Common Area Lighting Controls	Complete at least two improvements from options at left, plus associated common area 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. Measures must be installed within the same unit to be eligible for the incentive bonus; installation of one measure in one unit and another measure in another unit will not qualify for the bonus.
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 • In-unit and Common Area 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. Air sealing also requires that mechanical ventilation be addressed

Bundle Name	Measure Options	Requirements
Custom Bundle	Choose at least three measures from the above Measure Options. May include a Custom Measure as one of the options. If a measure from the Lighting Bundle or the HVAC Bundle is chosen, the applicant must also include the associated "Required" feature and that feature will not be counted towards the required three measures. For example, an applicant proposing to implement common area lighting fixtures and In-unit HVAC would also be required to install common area lighting controls and would only qualify for a Custom Bundle Bonus if it also implemented a third measure, such as heating equipment.	

Note: Although a Measure Option may be form part of more than one bundle, only one base incentive will be paid for that Measure Option.

Table 5: Multi-Measure Bundles for 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. Note these items must be submitted in accordance with Path A (Appliances) or as Custom Measures (the lighting measures).
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[28]	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.
Custom Bundle	Choose at least three measures from the above Measure Options. May include a Custom Measure as one of the options. If a measure from the HVAC Bundle is chosen, the applicant must also include the associated "Required" feature and that feature will not be counted towards the required three measures. For example, an applicant proposing to implement common area lighting and heating equipment would also be required to install associated VFDs or HVAC Controls and would only qualify for a Custom Bundle Bonus if it also implemented a third measure, such as appliances.	

Path C: Whole-Building/Comprehensive:

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®). Set forth below are more details regarding the conditions and requirements of this Path C:

[28] The HVAC Controls are identified in the Path A HVAC Controls Incentives Table; they may also be submitted as Custom Measures if they are controls that are not listed in the HVAC Controls Incentives Table.

General Requirements:

- Participants are required to work with a pre-approved contractor.
- Projects are required to demonstrate that they can meet program requirements by demonstrating savings projections through energy modeling, prior to project installation/construction.
- Energy savings, both projected and achieved, will be calculated on a comprehensive basis, and incentives will increase as energy savings increase.
- Incentives are paid on a per residential unit (e.g., per individual apartment) basis so that the potential incentive is immediately transparent to the owner/developer.
- An application for Path C (Comprehensive/Whole-Building) incentives will not be approved if the subject project is already enrolled in Path B (Custom and Multi-Measure) at the time of the Path C application.
- Unless elsewhere explicitly stated otherwise, incentives are available for equipment installed in Individual Units or in common areas, including outdoor areas, so long as the equipment's energy usage is on the building owner/manager's or tenant's meter and the owner/manager/tenant is contributing, or will be contributing as soon as the applicable building or unit is occupied, to the SBC through utility bill(s).
- Certain incentives and incentive caps for this Path C are stated in terms of Dwelling Units. However, multifamily SROs are also eligible for these incentives, even though they consist of SRO Units, not Dwelling Units. For multifamily SROs, multifamily unit-based incentives will be calculated by dividing the average square footage (sf) of the SRO Units in a multifamily SRO building by 1,000 and multiplying that percentage by the stated Dwelling Unit incentive amount. By way of example only, if an existing market-rate multifamily SRO building had one 500 sq. ft. unit, one 300 sq. ft. unit, and one 400 sq. ft. unit, each of which achieved the minimum required savings: (a) its Path C incentive would total $600 (0.4 x $500 x 3 units = 600) and (b) the project's Consultant would be paid an additional total of $120 (0.4 x $100 x 3 units = 120).
- 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 measures implemented by applicants to the Multifamily Program, i.e., the owner or managing entity of the entire Multifamily building as described in more detail in the Target Market subsection of the Multifamily Program section of this Compliance Filing.
- All equipment must be new and intended as a permanent fixture of the building (i.e., cannot / will not be removed by tenant).
- 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:

- All proposed equipment must meet or exceed minimum efficiencies specified for Path A (Single Measure Prescriptive). For equipment not listed, 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.

New Construction:

- 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 Multifamily New Construction.*
- The $30/MMBTU is based on site savings as measured from code compliant baseline not including any savings from Renewable Energy.

Add-On: Optional Savings Verification for Path C:

Projects going through Path C, will have the option to garner additional incentives by verifying whole-building energy savings. For existing buildings, this is generally 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. More details regarding this Path are as follows:

- 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).
- In appropriate situations, instead of submitting tenants' utility bills, an applicant may establish actual savings by using certain models/assumptions/defaults on substantially the same terms and conditions and in the same situations as the Pay for Performance (P4P) Program currently allows, as reflected in, for example, the Pay for Performance (P4P) Program Guidelines and Technical Tips.

Bulk Appliance Recycling:

The existing Energy Efficient Products' Appliance Recycling component is being expanded to include bulk recycling pick-up from any building eligible to participate in the Multifamily Program. Multifamily

properties can schedule no-cost pickup and responsible recycling of old, inefficient appliances. Eligible equipment includes: refrigerators, freezers, room air-conditioners, and dehumidifiers. Being able to pick up a large volume of appliances at a single multifamily building location offers the Program cost savings while expanding program benefits to the multifamily sector. 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.

Additional Components:

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.

Program Offerings and Incentives

The new Multifamily Program includes several program paths and associated incentive levels. Incentives include fixed, per unit of equipment, rebate/incentive amounts for Prescriptive technologies, as well as savings-based incentives, such as $/kWh, $/MMBtu, $/sq. ft., or $/therm, for custom technologies, and $/multifamily unit (e.g., apartment unit) incentives for whole-building improvements. Please see Appendix C to this Compliance Filing for incentive amounts and some related requirements and restrictions.

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 to facilitate and promote participation and better understand how to increase access to NJCEP for the affordable housing sector. 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 utilizes 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 audits29, 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. Path C requires the use of one of the pre-approved energy services companies, while Paths A & B do not require that these specific contractors be utilized.

Potential Future Program Enhancements

In an effort to continuously adjust to the multifamily market needs, the TRC Team will coordinate with Board Staff to consider and develop potential program enhancements, including, among other things:

- An electric baseboard/oil to heat pump pilot.
- Special incentives for multifamily homes participating in Path C New Construction that comply with Passive House design.
- A tenant engagement program.
- Subsidized financing for the participant's share of the cost of the measures eligible for this Program.
- Enhanced incentives for affordable multifamily housing.

Quality Control Provisions

Documented policies and procedures provide proper guidelines to ensure consistency in the processing and quality control for all Program participants. 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 Manager performed incentive calculations are entered into the database, and files are created for all documents and ongoing project correspondence. A sample of applications will be selected for quality control file review and site inspections.

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

[29] Level II audits assist customers in completing an in-depth evaluation of the energy performance of their buildings, including envelope; lighting; heating, ventilating, and air-conditioning systems; domestic water systems; central plant and process equipment (if applicable); and other energy-using systems. See ASHRAE, *Procedures for Commercial Building Energy Audits* (2d ed. 2011).

Distributed Energy Resources

Overview

New Jersey's Clean Energy Program 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 Energy Master Plan.

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)

  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 projects that comply with the following definition are treated as CHP projects by the Program:

- Waste Heat to Power (WHP)

  Waste heat to power (WHP) 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.

For the purposes of this Program, Fuel Cells are not considered to be WHP or CHP.

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 Cell is defined as follows:

- Fuel Cell (FC)

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

FCs include both FCs that upon installation/construction/commissioning produce useful thermal energy, i.e., FCs with Heat Recovery (FCHR), and FCs that do not produce useful thermal energy upon installation/construction/commissioning, i.e., FCs without Heat Recovery or "all-electric" FCs (FCwoHR).

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

Target Market and Eligibility

This CHP-FC Program is open to all New Jersey commercial and industrial utility customers paying into the Societal Benefits Fund. 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. 100% 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.)
- To qualify 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. Notwithstanding the foregoing, 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 20 years, systems fueled by a Class 1 renewable source must not exceed a payback period of 25 years, and all other systems must not exceed a payback period of 10 years.
- All project submissions must contain specific cost data for providing the unit with blackstart/islanding capability, regardless of whether or not 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 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.
- Installations of multiple systems planned for the same site within a 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.
- 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 all 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 is in operation 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 this 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.
- 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.
- Any system/equipment that uses diesel fuel, other types of oil, or coal for continuous operation.

Manufacturer Diversity

No more than 30% of the New Funding component of any FY's NJCEP budget for FCs may be used to fund FC projects substantially involving equipment from any single FC manufacturer.

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 in Appendix D: Distributed Energy Resources Incentives and General Rules.

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 24 months of installation.

Regarding the third incentive, if all other required performance thresholds are achieved:

- And the total annual net kWh generated is ≥80% of that specified in the Program-approved application, the full third incentive is earned.
- But the total annual net kWh generated is ≥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.
- But the total annual net kWh generated is <50% of that specified in the Program-approved application, no third incentive is earned.

The payment structure is summarized in the table immediately below:

Table 6: CHP-FC Incentive Payment Schedule

1st - Purchase	2nd - Installation	3rd - Acceptance of 12 months post-installation data
30%	50%	20%

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 assure that systems that receive incentives are operating as expected and providing the desired benefits to the State. 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.

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

Renewable Electric Storage Program

This Program is currently closed to new applicants. The FY20 budget is to only cover open commitments made before the Program closed.

Renewable Energy

Solar Renewable Energy Certificate Registration Program

Program Purpose and Strategy Overview

New Jersey's solar policies and Renewable Portfolio Standards (RPS) were established through legislation and implemented through regulation and Board Order. NJCEP's Solar Renewable Energy Certificate (SREC) Registration Program (SRP) is designed to meet the goals and objectives of the regulations.

Program Description

SRECs are tradable certificates that represent the clean energy benefits of electricity generated from a solar electric system. For each 1,000 kWh (1MWh) of electricity a solar electric system generates, an SREC is issued which can then be sold or traded separately from the power. The revenues from SREC sales or trades can make it more economically attractive for individuals and businesses to finance and invest in clean, emission-free solar power.

The SRP provides registration for solar renewable energy certificates (SRECs) for solar projects, including both behind-the-meter and direct grid-supply projects connected to the New Jersey electric distribution system. The Generation Attribute Tracking System (GATS) operated by PJM Environmental Information Services is used for tracking and trading of SRECs as well as Class I and Class II RECs.

In FY20, the focus of the SRP will be on processing the registration of SRECs and continuing to support the goals and objectives of New Jersey's solar polices while communicating accurate, objective information with respect to the SREC market.

FY20 Program Changes

There are no program changes planned for FY20, other than those that may be required to implement new legislation and/or rules. In that regard, it is noted that the Board and its staff have undertaken various activities to implement L. 2018, c. 17 (Act). Those activities include the issuance of a Straw Proposal and related proceedings regarding the solar transition required by the Act. See Solar Transition Proceedings. Consistent with Act, the SRP will close to new applicants when solar generation equals 5.1% of retail electric sales; that may occur during FY20.

The Program Manager also will continue to work closely with Board Staff to update and modify SRP registration submittal requirements as necessary to adhere to other applicable rule amendments that may occur. The Program Manager will also continue to enhance the online portal, streamline the SRP Registration process, and provide up to date reporting on program results/trends.

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 New Jersey's SREC Registration Program.

Offerings and Customer Incentives

There are no direct customer incentives. The New Jersey SREC Registration Program provides a means for solar electric generation facilities to access the SREC market, for SRECs to be created and verified to allow them to 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 SREC Registration Program requirements will be eligible to generate NJ SRECs upon successful completion of all requirements. The rules governing the submittal of new SREC Program Registrations and Final As-Built paperwork may be referenced at N.J.A.C. 14:8-2.4. The SRP guidelines will continue to conform to these rules and will be modified as required to reflect any changes to the rules as they become effective.

In addition:

1. The Program Manager will provide support for the Utility's SREC-Based Financing Programs. This will include coordination with the Solicitation Manager for NJCEP website postings, notifications to the Renewable Energy Program distribution list and establishment of timelines for submittal of SREC Registration Program registrations for each solicitation round.
2. A web based solar portal will be used for submitting SRP Registrations, providing a more streamlined and automated registration submittal and acceptance process.
3. The Program Manager will prepare monthly reports identifying program results and trends.

Planned Program Implementation Activities for FY20

The Renewable Energy Programs will have the following areas of focus in FY20:

1. Sustain the growth of New Jersey's solar markets, while communicating accurate and objective information on market development activity.
2. Continue working with the appropriate stakeholder working groups such as the Renewable Energy Committee.
3. Monitor legislative and policy developments, inform the market of key outstanding questions and decisions (e.g. new RPS levels, net metering, etc.) and translate new policies into program operational procedures as required.
4. Work with the Board and its staff to consider, develop, and implement possible programmatic changes, including those implementing the Act.

Quality Control / Quality Assurance Provisions

All renewable energy systems facilitated through the SRP Program 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 SRP Program 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" 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 the SREC Registration Program projects. An on-site verification will be performed for all grid-supply projects, all behind the meter projects with a capacity greater than 500 kW, and all add-on systems that add additional capacity or unique installations. 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.

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

Goals and Renewable Generation

The SRP does not have specific program goals in terms of the number of participants or capacity or quantity of solar electric generating systems installed. However, the SRP Program does support the goals outlined in New Jersey's Renewable Portfolio Standards.

State Energy Program

Limited funding may be available from the U.S. Department of Energy for a State Energy Program (SEP) grant which would allow fuel oil, propane, and municipal and cooperative electric utility customers (in other words, customers of non-investor owned electric and gas utilities) to participate in select NJCEP programs. Absent this supplemental funding, these customers are not eligible for NJCEP funding since they do not pay into the SBC. If available, funds will be provided on a first come, first-served basis.

Other than expiration dates related to the availability of SEP funds, existing program guidelines and rules related to NJCEP programs will apply. The Program Manager will process applications and provide general support for these initiatives, and the fees associated with administering the participation of these customers and processing these applications will be paid with NJCEP funds. Currently, SEP funding is expected to be available for the following programs:

- Existing Homes.
- C&I Direct Install.

Outreach, Website and Other

See the Outreach Plan at Appendix J: Outreach Plan.

Appendix A: Residential Incentives

Residential New Construction

Table 7 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/Affordable Housing 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 only in the NJCEP Multifamily Program once its Path C is fully implemented.
- As previously mentioned, the transition to the new Multifamily Program will continue during FY20. Once Path C of the new Multifamily Program is fully implemented, new multifamily buildings having five (5) or more Dwelling Units will be eligible to participate only in that Multifamily Program, while new multifamily buildings having less than five (5) Dwelling Units will continue to be eligible for this RNC Program.

Residential Existing Homes

Table 8: Incentives for the Single Measures Pathway (Equipment)[30]

Equipment[31]	Minimum Requirements	FY20 Incentive Amount per Unit
Gas Furnace – Tier 1	≥ 95% AFUE	$250
Gas Furnace – Tier 2	≥ 97% AFUE	$500
Oil Furnace	≥ 85% AFUE	$250
Gas Boiler	≥ 90% AFUE	$300
Oil Boiler	≥ 87% AFUE	$300
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	0.90 UEF	$300
Indirect-fired Storage Tank Water Heater	Installed with a newly installed qualifying gas or oil boiler above	$200
Gas Combi- Boiler	≥ 90% AFUE boiler for space heating with integrated domestic hot water within one compact unit (combi-boiler)	$700
Heat Pump Water Heater	2.0 UEF	$750
Central Air Conditioner- Tier 1	SEER ≥16 EER ≥ 13	$300

[30] From AHRI directory, ENERGY STAR listing, manufacture's specifications, or NEEP listing as indicated.

Equipment	Minimum Requirements	FY20 Incentive Amount per Unit
Central Air Conditioner- Tier 2	SEER ≥ 18 EER ≥ 13	$500
Central Air Source Heat Pump- Tier 1	SEER ≥ 16 EER ≥ 13 & HSPF ≥ 10	$600
Central Air Source Heat Pump- Tier 2	SEER ≥ 18 EER ≥ 13 & HSPF ≥ 10	$1,000
Mini-Split Air Conditioner	SEER ≥ 20 EER ≥ 12.5	$500
Mini-Split Cold Climate Heat Pump- Single ductless indoor unit	SEER ≥ 20 EER ≥ 12 & HSPF ≥ 12 with COP @5˚F ≥ 1.75 (at maximum capacity operation) Must meet all performance parameters and submit manufacturer's heat pump performance information for COP @ 5˚F.	$1,000
Mini-Split Cold Climate Heat Pump – Multi (≥2) or ducted indoor units or Air-to-Water Heat Pump with integrated domestic hot water.	SEER ≥ 18 EER ≥ 12 & HSPF ≥ 10 & COP @5˚F ≥ 1.75 (at maximum capacity operation) Must meet all performance parameters and submit manufacturer's heat pump performance information for COP @ 5˚F.	$2,000
UEZ/LMI Bonus		$200/measure

Table 9: Incentives for the Single Measures Pathway (Building Envelope)

Building Envelope	Minimum Requirements	FY20 Incentive Amount per Home
Attic Air Sealing[32]	Attic air sealing of ≥500 sq. ft. of attic space	$500
Insulation[33]	Insulation of ≥500 sq. ft. must be installed in one of the following areas: • Attic floors - requires attic air sealing, existing insulation must not be ≥7-inches, must add ≥6-inches. • Attic underside roof deck - existing insulation on attic floor must not be ≥7-inches, must install R-49 spray foam as required by building code. Walls and floors must have no existing insulation, framed wall cavity must be dense packed, foundation wall must be ≥R-10 foam, floors must include installation of ≥ R-19 insulation.	$500
Duct Sealing	Attic or crawlspace duct system (at least 50% of total duct system located in attic or crawlspace), all duct joints, seams and connections sealed with duct sealing compound (i.e. mastic, no tapes); confirm proper system airflow after sealing is completed.	$300
Duct Insulation	Meet above requirements for duct sealing, install ≥R-8	$300
UEZ/LMI Bonus		$200/measure

Notes to Single Measures (Equipment and Building Envelope) tables:

- The incentives apply to measures <u>purchased</u> during FY20.

[32] Requires installation of mechanical ventilation.

[33] Requires installation of mechanical ventilation.

Table 10: Incentive for the Multi-Measures Pathway

Multi-Measures	Minimum Requirements	FY20 Multi-measure Bonus Incentive Amount
Equipment and/or Building Envelope Measures	Bundling of a total of at least 2 qualifying Equipment and/or Building Envelope measures, each of which measures meets the minimum requirements of the tables above entitled Incentives for the Singe Measures Pathway (Equipment or Building Envelope), installed and submitted as a single project.	$200

Notes to Multi-Measures table:

- The incentives apply to measures purchased during FY20.

Table 11: Incentives for the Comprehensive Pathway

Prescriptive Track-Minimum Requirements	Performance Track-Minimum Requirements	FY20 Comprehensive Incentives	**FY20 UEZ/LMI Bonus Incentive**
4 installed measures	Estimated total energy savings from all work must total at least 5%	$2,000 plus 0% financing up to $5,000	$500
5 installed measures	Estimated total energy savings from all work must total at least 20%	$3,000 plus Either 0% financing up to $10,000 or 0.99% financing up to $15,000	$750
6+ installed measures	Estimated total energy savings from all work must total at least 25%	$4,000 plus Either 0% financing up to $10,000 or 0.99% financing up to $15,000	$1,000
All Comprehensive Pathway projects require attic air sealing and the installation of ≥ 6-inches insulation upgrade in the accessible area of the attic if the existing attic insulation is <7-inches. (For the avoidance of doubt, the foregoing measures may be counted toward meeting the below requirements.)			

Notes to table immediately above:

- Incentive is limited to ≤ 50% of project costs, except that those incentives that include a UEZ/LMI Bonus Incentive are limited to ≤80% of project costs.
- Homes located in a UEZ and/or occupied (or to be occupied) by LMI residents are eligible for the above-specified Bonus Incentive.
- Customers replacing heating and/or central cooling systems who receive incentives for their project through the Comprehensive Pathway may not also apply for or receive Single or Multi-Measures incentives for the same measures.
- The Program offers the above financing where utility financing is unavailable. Some New Jersey utilities may offer financing for Comprehensive Pathway projects to underwrite the non-rebated portion of the customer cost (i.e., the customer's net out-of-pocket cost) for such projects in their service territories. For any participants where a utility loan or on-bill repayment program is not in place, and in instances where a utility customer has been denied through the utility program, NJCEP will offer the financing in the table immediately above.
- The Program Administrator and Board Staff will continue to process and pay incentives from funds supplied by other sources as they may become available.
- Comprehensive Projects may include health and safety measures and qualified accessories, all as identified and described in more detail in the "Eligible Measures" list posted on the NJCEP website.
- Projects will continue to have expiration dates. The applicant will need to re-enroll projects to the Program following the funding reservation process for projects not completed and submitted to the

Program prior to their expiration date and will be eligible for the incentive levels available at the time of re-enrollment.

- Incentives are payable only upon satisfactory project completion.
- A NJ homeowner may apply for a second Comprehensive Pathway project at the same site (home/townhouse) only under the following conditions: 1) a minimum of one (1) year has passed since the prior project was completed; 2) the contractor performs a new assessment based on the existing conditions of the home after the completion of the prior project. These rules only apply to a single homeowner for the length of the home ownership. A NJ homeowner may apply for a second comprehensive project at a different site (home/townhouse).

Table 12: Contractor Production Incentives

Pathway	Prescriptive Track	Performance Track
Comprehensive Project (BPI GoldStar Contractor)	$250	$500

Note to table immediately above: Contractor incentive will not be paid if project fails initial field inspection.

Appliance and Consumer Electronics Incentives

Table 13: Appliances and Consumer Electronics Incentives

Equipment	Incentive Tiers	Performance Criteria[34]	FY20 Rebate	Rebate Type
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	Downstream
	Tier 2 (Aligned with CEE Tier 2)	IMEF ≥ 2.92, IWF ≤ 3.2	$75	Downstream
Clothes Dryer	Tier 1 (Aligned with ENERGY STAR V1.1 Gas)	CEF ≥ 3.48	$100	Downstream
	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 CEF ≥ 3.80 for Gas	$300	Downstream
Refrigerator	Tier 1 (Aligned with ENERGY STAR V5.0 =>7.75 cu ft.)	Baseline ENERGY STAR	$50	Downstream
	Tier 2 (Aligned with CEE Tier 2 =>7.75 cu ft.)	15% over the measured Federal Minimum Efficiency Standard	$75	Downstream
Advanced Power Strip	Tier 1	Provides standby power management	$15 (Maximum)	Upstream
	Tier 2	Provides active power management	$40 (Maximum)	Upstream
Air Purifiers	ENERGY STAR V1.2		$50	Downstream
Dehumidifiers	ENERGY STAR V5.0		$25	Downstream
Room ACs	ENERGY STAR V4.1		$15	Downstream

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

Appendix B: Commercial and Industrial 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 FY20 Compliance Filings and in the Guidelines established for each program. The PA, 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 / Multifamily / DER / Incentive Caps

Incentive caps have been established to ensure that there is equitable access to the C&I, Multifamily, 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

Local Government Energy Audit Program – LGEA participants will be held to a fiscal year entity cap of $100,000 per entity, subject to the exceptions set forth in the specific LGEA Program Description in this document.

Direct Install – See Direct Install, Program Offerings and Incentives section of this Compliance Filing

C&I Buildings:

BASE **-** $100,000 per project. Higher caps may be considered where multiple facilities are involved, with those higher caps being no higher than $100,000 per facility included in the project.

Paths A and B - $500,000 per electric account and $500,000 per natural gas account, per fiscal year. Further, each Multi-Measure Bonus is capped at the sum of the associated Base Incentives, excluding the highest Base Incentive from sum. See Appendix B, table entitled Multi-Measure Example Projects for illustrative examples.

Path C - Total incentives, excluding BASE incentives and Add-on Saving Verification incentives, 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 total incentives shall not exceed $1,000,000 per project. For the avoidance of doubt, the foregoing places a $1,000,000 per project cap on electric-only facilities. Entity caps also apply.

CHP-FC

See Appendix D: Distributed Energy Resources Incentives and General Rules.

C&I / Multifamily / DER Entity Incentive Caps

If an entity brings more than one project through NJCEP in any given FY, it will be held to an Entity Cap of $4,000,000 (Entity Cap) for that FY, in addition to the other incentive caps described above. Each Program's and/or Path's milestones for determining when incentives count towards an Entity Cap for a given FY are as follows:

- Application approvals issued in the FY – C&I Retrofit and New Construction, Combined Heat and Power – Fuel Cells, C&I Existing Buildings Paths A & B, Multifamily Paths A & B.
- Energy Reduction Plan / Proposed Energy Reduction Plan approval / Final Energy Efficiency Plan / Scope of Work Approval issued in the FY - Pay for Performance, Pay for Performance New Construction, C&I Existing Buildings Path C, Multifamily Path C.
- Final Energy Efficiency Plan approvals issued in the FY - Large Energy Users.
- Fully executed Scopes of Work achieved in the FY - Direct Install.

Incentives under any NJCEP Commercial & Industrial, Distributed Energy Resources, and Multifamily Program(s), except the Local Government Energy Audit Program, count toward the Entity Cap. An FY is a fiscal 12-month period from July 1 – June 30. Once the Entity 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 Cap on March 15, 2019, it must wait until at least July 1, 2019, the first day of the FY, to apply.

In addition, Large Energy Users are subject to additional C&I /Multifamily / DER Entity Caps consisting of the lesser of:

- $4,000,000
- 3% of total annual energy cost (including delivery and third-party supply costs) in previous year (i.e. from all entity facilities), provided, however, that an applicant may choose to bank and combine up to 2 consecutive years of total annual energy costs for the purpose of calculating its maximum incentive in a given FY. By way of example only, if a participant in FY15 had total energy costs of $5,000,000, in FY16 had total energy costs of $6,000,000, and in FY16 received an incentive of $100,000, the applicant's maximum incentive for FY17 would be $230,000 ([$11,000,000 x 0.03] – 100,000 = $230,000).

Total Cost Incentive Cap

In addition to the specific caps outlined 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[35] of measures installed or performed.

[35] 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 Buildings

BASE – Buildings and Systems Evaluation

BASE will provide incentives consisting of a fifty percent (50%) cost share to eligible customers towards the cost of approved scopes of work.

Path A - Single Measure Prescriptive Equipment Incentives

Enhanced Incentive

An applicant will be eligible for an enhanced incentive equal to an additional 100% of the Path A incentive values set forth in the tables below, but subject to a cap of the applicant's cost for the project (material and labor), for a project that is installed at an existing building that meets either of the below criteria:

1. Is located within a designated UEZ or OZ. As used in this Compliance Filing, a UEZ is as identified on the New Jersey Department of Community Affairs website https://www.nj.gov/njbusiness/financing/uez/ and an OZ is also as identified on NJDCA's website https://www.state.nj.us/dca/divisions/lps/opp_zones.html#where; or
2. Is owned or operated by a public K-12 school or county or municipal entity.

Existing buildings that meet either of the above criteria, and the related enhanced incentives, are sometimes referred to as UEZ/Public in the remainder of this Appendix B.

For the avoidance of doubt, applicants must also follow all program rules as outlined in the Program Guide and application Terms and Conditions.

Incentives

Table 14: C&I Lighting Incentives

Existing Buildings & New Construction	
Prescriptive Lighting:	
LED Prescriptive Lighting: For incentive eligibility, LED equipment must be listed on the current ENERGY STAR or Design Lights Consortium qualified products list. Incentives will not be provided for: • LEDs replacing existing LED lamps/fixtures; • Installation of otherwise eligible screw-in/plug-in lighting measures that are (a) not hard-wired or not permanent (example - refrigerator, oven, floor/desk lamps) or (b) retail display lighting.	
Technology Classification	FY20 Incentive
LED Lamps (Integral/Screw-In):	
• G30, G40, PAR30, PAR40, R30, BR30, BR40	Up to $3/lamp for Energy Star lamps
• R14, R16, G16.5, G25, PAR16, PAR20, R20, BR20	Up to $2/lamp for Energy Star lamps
• All Other Energy Star Integral/Screw-in Lamp Types	Up to $1/lamp for 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 Portable Desk Lamps	Up to $5 per fixture
LED Portable Floor Lamp	Up to $5 per fixture
LED Wall-wash Lights	Up to $55 per fixture
LED Stairwell and Passageway Luminaires	Up to $45 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 $75 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 Downlight Pendant	Up to $5/fixture
LED Recessed Downlight	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 ENERGY STAR Security	Up to $5/fixture
LED ENERGY STAR Wall Sconces	Up to $5/fixture
LED Wrapped Lens	Up to $5/fixture
LED Accent Light Line Voltage	Up to $15/fixture
LED Linear Strip	Up to $10/fixture
LED Under Cabinet	Up to $10/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 15: C&I Lighting Controls Incentives

Technology Classification	FY20 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 LED Fixtures	$45 per fixture controlled. New construction projects not eligible unless exceeding code requirement under ASHRAE 90.1-2013
Hi-Low Controls - All facilities: LED Fixtures	$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 16: C&I Chiller Incentives

Electric Chillers: FY20 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				

Type	Capacity	Existing Building				***New Construction***			
		Constant Speed		Variable Speed		Constant Speed		Variable Speed	
		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	FY20 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 17: Electric HVAC Incentives

Technology Classification	FY20 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					Incentive $/ton
			Minimum Qualifying Efficiency					
			SEER	HSPF	EER	IEER	COP	
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	Minimum Qualifying Efficiency		Incentive
			EER	COP	$/ton	EER	COP	$/ton
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	Minimum Qualifying Efficiency		Incentive
			EER	COP	$/ton	EER	COP	$/ton
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 18:Gas HVAC Incentives

<table>
<tr><th>Technology Classification</th><th>FY20 Incentive</th></tr>
<tr><td colspan="2">Gas Fired Boilers: FY20 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>
<tr><td>≥300 MBH - 1500 MBH</td><td>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</td></tr>
</table>

Technology Classification	FY20 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

Technology Classification	FY20 Incentive
Domestic Hot Water Pipe Wrap Insulation (All Equipment Types)	≤0.5" Diameter - $1 per linear foot > 0.5" Diameter $2 per linear foot

Table 19: Gas Water Heating Incentives

Technology Classification	FY20 Incentive			
Gas Fired Water Heating:	Gas Water Heater Type and Capacity		Minimum Efficiency	Incentive Rate
	Gas-fired, Storage	≤ 75,000 Btu/h (consumer)	≥ 0.67 EF or ≥ 0.64 UEF	$1.75/MBH
			≥ 0.87 EF or ≥ 0.81 UEF	$3.50/MBH
		>75,000 Btu/h and ≤ 105,000 Btu/h (residential duty commercial)	≥ 82% Et or ≥ 0.64 UEF	$1.75/MBH
			≥ 90% Et or ≥ 0.85 UEF	$3.50/MBH
		>105,000 Btu/h (commercial)	≥ 82% Et	$1.75/MBH
			≥ 92% Et	$3.50/MBH
	Gas-fired, instant (tankless)	< 200,000 Btu/h (consumer)	≥ 90% Et or ≥ 0.82 EF or ≥ 0.81 UEF	$300/tankless water heater
		≥ 200,000 Btu/h (commercial)	≥ 90% Et	$300/tankless water heater

Technology Classification	FY20 Incentive
Gas Fired Water Booster Heaters:	
≤ 100 MBH	Up to $35 per MBH
> 100 MBH	Up to $17 per MBH
Hot Water Controls:	
Low Flow Faucet Aerators All commercial building types	Tier 1 (1.5 GPM – EPA water Sense) - $2/faucet Tier 2 (1 GPM or less) - $4/faucet
Low Flow Showerheads All commercial building types	Tier 1 (2 GPM – EPA water Sense) - $10/showerhead Tier 2 (1.5 GPM or less) - $15/showerhead

Table 20: 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
		50	$3,000
• 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.		60	$3,500
		75	$4,000
		100	$5,000
		200	$7,000

Table 21: Refrigerated / Freezer Motors

Technology Classification	FY20 Incentive
Electronic Commutated 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 22: C&I Refrigeration Technology and Controls Incentives

Technology Classification	FY20 Incentive
Refrigeration Controls: *Door heater and electric defrost controls not eligible for new construction projects.*	
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
Floating Head and Suction Controls:	
Floating Head Pressure Controls on Commercial Air-Cooled Refrigeration System	$75 per ton; commercial facilities only
Floating Head Pressure Controls on Commercial Evap-Cooled Refrigeration System	$75 per ton; commercial facilities only
Floating Head Pressure Controls on Process Evap-Cooled Refrigeration System	$75 per ton; refrigerated warehouse only
Floating Suction Pressure Controls on Commercial Refrigeration System	$50 per ton; commercial facilities only
Floating Suction Pressure Controls on Process Refrigeration System	$50 per ton; refrigerated warehouse only

Table 23: C&I Food Service Incentives

Technology Classification	FY20 Incentive
Commercial Dishwashers: Equipment must be qualified by the current version* of ENERGY STAR or CEE[36]	
Under Counter	$400 per unit
Door Type	$700 per unit
Single Tank Conveyor	$1,000 per unit
Multiple Tank Conveyor	$1,500 per unit
Commercial Combination Oven/Steamer (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below. o ASTM Criteria: o Must meet the idle energy rate requirements in the Electric Combination Oven/Steamer Table, utilizing American Society for Testing and Materials (ASTM) F2861. o 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. o 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

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

Technology Classification	FY20 Incentive
Commercial Combination Oven/Steamer (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 cooking energy efficiency of 38 percent or greater in steam mode and 44 percent or greater in convection mode, utilizing ASTM F2861. o Must meet the idle energy rate requirements in the Gas Commercial Combination Oven/Steamer Table, utilizing ASTM F2861. o 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
Commercial Convection Oven (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 70 percent or more, utilizing ASTM F1496. o Full-size electric ovens must have a tested idle energy rate of 1.6 kW or less, utilizing ASTM F1496. o Half-size electric ovens must have a tested idle energy rate of 1.0 kW or less, utilizing ASTM F1496.	
Commercial Convection Oven (Electric)	$350 per oven
Commercial Convection Oven (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 44 percent or greater and an idle energy rate of 13,000 Btu/h or less, utilizing ASTM F1496.	
Commercial Convection Oven (Gas)	$500 per oven

Technology Classification	FY20 Incentive
Commercial Rack Oven (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 baking energy efficiency of 50 percent or greater, utilizing ASTM F2093.	
Commercial Rack Oven Single (Gas)	$1,000 per single oven
Commercial Rack Oven Double (Gas)	$2,000 per double oven
Commercial Conveyor Oven (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 baking energy efficiency of 42 percent or greater, utilizing ASTM F1817. o 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. o 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. o 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. o ASTM Criteria: o 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. o Multiple vat configurations are paid per qualifying vat.	
Commercial Fryer (Electric)	$200 per vat

Technology Classification	FY20 Incentive
Commercial Fryer (Gas): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below. o ASTM Criteria: o 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. o Multiple vat configurations are paid per qualifying vat.	
Commercial Fryer (Gas)	$749 per vat
Commercial Large Vat Fryer (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 (French fry) cooking energy efficiency of 80 percent or greater, utilizing ASTM F2144. o Multiple vat configurations are paid per qualifying vat.	
Commercial Large Vat Fryer (Electric)	$200 per vat
Commercial Large Vat Fryer (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 (French fry) cooking energy efficiency of 50 percent or greater, utilizing ASTM F2144. o Multiple vat configurations are paid per qualifying vat.	
Commercial Large Vat Fryer (Gas)	$500 per vat
Commercial Griddle (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 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.	
Commercial Griddle (Electric)	$300 per griddle

Technology Classification	FY20 Incentive
Commercial Griddle (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 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 Griddle (Gas)	$125 per griddle
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

Technology Classification	FY20 Incentive
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.	

Technology Classification	FY20 Incentive
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

Path B – Multi-Measure and Custom Measure Incentives

Table 24: Custom Measure Incentives:

The lesser amount per the following table:

	All Other Participants	
	Existing Building	**New Construction / Substantial Renovation**
Base Incentive	$0.15/kWh; $1.50/therm of 1st year savings (**$0.30/kWh and $3.00/therm for UEZ/Public)**	$0.15/kWh; $1.50/therm of 1st year incremental savings
Project Cost Cap	50% (**80% for UEZ/Public**) of total project(s) costs	50% of incremental project cost (i.e., the difference between the cost of baseline equipment/construction and the cost of the selected energy-efficient equipment / construction
Buydown	Buydown to 1-year simple payback	Buydown to 1-year simple payback based on incremental project cost and energy savings

Tables 25: Multi-Measure Bonus Incentives

Multi-Measure Bonus Options		
Options	Bonus	Requirements
Double Up	10% Bonus	Complete ≥ 2 measures that affect ≥ 2 distinct End Use Categories.
Triple Play	15% Bonus	Complete ≥ 3 measures that affect ≥ 3 distinct End Use Categories.
Four Pack	20% Bonus	Complete ≥ 4 measures that affect ≥ 4 distinct End Use Categories.

Tables 26: Path B Multi-measure and Custom Incentives for Large Energy Users

	Large Energy Users[37]
	Existing Building / New Construction / Substantial Renovation
Base Incentive	$0.33/kWh; $3.75/therm of 1st year savings
Project Cost Cap	75% of total project(s) costs, which include, among other things, pre-engineering costs, soft costs, and other similar costs

[37] The enhanced incentives for Large Energy Users do not apply to any incentives for energy savings for non-custom lighting measures that constitute >50% of the energy savings upon which the overall application and approved scope of work are based; such measures are eligible to receive only the incentive paid to all other participants; all other approved measures would still receive the enhanced amount (e.g., $0.33/kWh; $3.75/therm). For the avoidance of doubt, Large Energy Users are not precluded from applying for the incentives in Tables 24 and 25.

Tables 27: Multi-Measure Example Projects

Multi-Measure Example Projects				
Options	Measures	Base Incentives	Bonus	Total Incentives with Bonus
Office Double Up	1. Lighting & Controls* - $25,000 2. Unitary HVAC - $20,000 *Bonus Incentive Cap Check = $20,000*	$45,000	10% on two categories = $4,500	$49,500
Restaurant Triple Play	1. Lighting & Controls* - $15,000 2. Commercial Cooking - $13,000 3. Refrigeration - $5,000 *Bonus Incentive Cap Check = $18,000*	$33,000	15% on three categories = $4,950	$37,950
Hotel Four Pack	1. Lighting & Controls* - $20,000 2. Gas Water Heating - $1,000 3. Refrigeration - $500 4. Custom Measure - $300 *Bonus Incentive Cap Check = $1,800*	$21,800	20% on four categories = $4,360, but capped at $1,800	$23,600
Custom Project	Design and install an Advanced Lighting Controls Systems (ALCS) project	$32,000	No Bonus	$32,000

*Non-ALCS lighting controls (i.e., occupancy sensors).

Path C - Whole-Building Incentives

Table 28: Whole Building Incentives - Existing Building:

	Large Energy Users	UEZ or OZ, K-12 Public Schools, or Counties/Municipalities [38]	All Other Participants
Incentive once Minimum Required Total Source Energy Reduction (kBtu/sqft) of 10% is Achieved	$0.33/kWh and/or $3.75/therm, as applicable	$0.32/kWh and/or $3.20/therm, as applicable	$0.16/kWh and/or $1.60/therm, as applicable
Project Cost Cap[39]	75%	80%	50%

Table 29: Whole Building Incentives – New Construction

New Construction Incentive Structure		
Minimum Cost Reduction or Source Energy Savings Over ASHRAE 90.1-2013 Baseline	Incentive by Building Type Per Square Foot	
5% All Buildings	Industrial/High Energy Use Intensity	Commercial
Installation & Commissioning of Measures		
5% - < 7% (Tier 1)	$1.10	$0.90
7% - < 10% (Tier 2)	$1.30	$1.10
10% or greater (Tier 3)	$1.50	$1.30
Pre-Design Bonus		
Additional $0.04 (capped at $20,000/project)		

[38] Applies to C&I facilities located in a UEZ or OZ and to all facilities owned or operated by K-12 public schools or county or municipal entities.

[39] This is based on the total cost of the project (labor and materials) and applies to the total incentive, including any optional verification incentive, earned.

Path C Optional Add-On: Savings Verification Incentive

Table 30: Existing Buildings Savings Verification Incentive

Minimum Performance Threshold: *Based on Verified Total Source Energy Reduction (kBtu/sqft)*		**5%**	
Electric Incentives	Base Incentive based on 5% savings:	$0.05	per verified kWh saved
	For each % over 10% add:	$0.005	
	Maximum Incentive:	$0.10	
Gas Incentives	Base Incentive based on 5% savings:	$0.50	per verified therm saved
	For each % over 10% add:	$0.05	
	Maximum Incentive:	$1.00	
UEZ/Public Bonus		2x the applicable amount above	

Table 31: New Construction Savings Verification Incentive

Incentive by Building Type Per Square Foot	
Industrial/High Energy Use Intensity	Commercial
$0.40	$0.35

Appendix C: Multifamily 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 FY20 Compliance Filings and in the Guidelines established for each program. The PA, 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.

Multifamily Incentives

Program / Project Incentive Caps

Incentive caps have been established to ensure that there is equitable access to the Multifamily Program for all qualifying customers and are proportional relative to the level of effort of the Program Path.

Table 32: Incentive Caps

	Existing Buildings	New Construction
Path A, total incentive per project shall not exceed:	$800 per Dwelling Unit[40]*	$400 per Dwelling Unit
Path B, total incentive per project shall not exceed:	$1,000 per Dwelling Unit*	$600 per Dwelling Unit
Additionally, Custom Measure incentive shall not exceed: *(Counts towards Path B cap)*[41]	50% (**80% for existing UEZ/Affordable Housing buildings**) of total project cost	50% of total project incremental cost
Path C	No numeric cap; self-limiting	No numeric cap; self-limiting
Consultant Incentive shall not exceed: (Does not count towards above Path C cap)	Total invoice to participant	Total invoice to participant
Add On - Savings Verification, total incentive per project shall not exceed: (Does not count towards above Path C cap)	$225 per Dwelling Unit*	$150 per Dwelling Unit

*** This amount is doubled for existing UEZ/Affordable Housing buildings.**

[40] In this Table, "Dwelling Unit" refers only to those Dwelling Units benefitting from measures included in the subject application, i.e., measures performed in those Dwelling Units or that benefit those Dwelling Units. For example, a new furnace installed in a common space and heating 10 Dwelling Units will result in those 10 Dwelling Units being included in the calculation of the cap but the other 5 Dwelling Units in the building, for which Units no measures were performed, would be excluded.

[41] For example, if there is a bundle at an Existing Building consisting of performing the following in each Dwelling Unit: insulation that cost $1000 per unit to install (.5 x $1,000 = $500), plus a mini-split A/C ($500), plus 6 LED Bath Vanities (6 x $5 = $30), the final capped incentive would be $1,000, not $1,030. For a further example, if there is a bundle at an Existing Building consisting of performing the following in each Dwelling Unit: insulation that cost $1000 per unit to install (.5 x $1,000 = $500), plus a Tier 1 gas furnace ($250), plus 6 LED bath vanities (6 x $5 = $30), the final incentive paid would be $785.

C&I / Multifamily / DER Entity Incentive Caps

See Appendix B, Commercial and Industrial Incentives and General Rules.

Total Cost Incentive Cap

See Appendix B, Commercial and Industrial Incentives and General Rules.

Path A – Single Measure Incentives

Enhanced Incentive

An applicant will be eligible for an enhanced incentive equal to an additional 100% of the Path A incentive values set forth in the tables below, but subject to a cap of the applicant's cost for the project (material and labor), for a project that is installed at an existing Multifamily building that meets either of the below criteria:

1. Is located within a designated UEZ or is or will be Affordable Housing. or
2. Is owned or operated by a county or municipal entity.

Buildings that meet either of the above criteria are referred to in this Appendix C as "UEZ/Affordable Housing."

Incentives

See below tables and notes and above caps.

Appliances

- Eligible appliances may be located in-Individual Units or in common areas.
- The appliance must both appear on the certified product list linked below and meet any efficiency requirements to qualify for an incentive. Efficiency data can be found on the manufacturer's specification sheet or ENERGY STAR® or CEE listing.
- Equipment must be owned in fee, not leased, rented, consigned, or borrowed.

New Construction

Eligible

Existing Buildings

Eligible

Table 33: Appliance Requirements and Incentives

Equipment Type	Certified Product List	Efficiency Requirements	Incentive
Clothes Washer	ENERGY STAR® Residential Clothes Washers[42]	Front Load - IMEF ≥ 2.75, IWF ≤ 3.7 Top Load - IMEF ≥ 2.06, IWF ≤ 4.3	$50/unit
	CEE Residential Clothes Washers[43] (*See Tier 2 tabs*)	IMEF ≥ 2.92, IWF ≤ 3.2	$75/unit
Clothes Dryer, Gas	ENERGY STAR® Residential Gas Clothes Dryers[44]	CEF ≥ 3.48	$100/unit
		CEF ≥ 3.80	$300/unit
Clothes Dryer, Electric	ENERGY STAR® Residential Electric Clothes Dryers[45]	CEF ≥ 3.93	$100/unit
		CEF ≥ 4.30	$300/unit
Refrigerator ≥ 7.75 cu.ft.	ENERGY STAR® Residential Refrigerators[46]		$50/unit
	CEE Residential Refrigerators[47] *(See Tier 2 or Tier 3 tabs)*		$75/unit
Through-the-wall Room Air Conditioner	ENERGY STAR Room Air Conditioners[48]		$25/unit

[42] https://www.energystar.gov/productfinder/product/certified-clothes-washers/results

[43] https://library.cee1.org/content/qualifying-product-lists-residential-clothes-washers

[44] https://www.energystar.gov/productfinder/product/certified-clothes-dryers

[45] https://www.energystar.gov/productfinder/product/certified-clothes-dryers

[46] https://www.energystar.gov/productfinder/product/certified-residential-refrigerators/results

[47] https://library.cee1.org/content/qualifying-product-lists-residential-refrigerators

[48] https://www.energystar.gov/productfinder/product/certified-room-air-conditioners

Lighting and Lighting Controls

Existing Buildings

Eligible

- Equipment may be installed in units, in common areas, or exterior to the building.
- The fixture, lamp or bulb must appear on the most current DesignLights Consortium® (DLC®) or ENERGY STAR® Qualified/Certified Products List linked below.
- The model number appearing on the specification sheet must be an exact match to the Qualified/Certified Products List.
- For DLC® Qualified Products, the Primary Use Category definition[49] of the fixture must align with the manner in which the product is installed.
- Incentives for LED measures available for replacements of existing HID, incandescent/halogen, or fluorescent lighting only.
- LED screw-in/plug-in bulb incentives are available for replacement of CFL, incandescent, or halogen bulbs only. When replacing HID bulbs, LED screw-in or plug-in bulbs are not eligible for incentives.
    - Exception: Pin-based CFL to DLC® qualified pin-based LEDs and HID to Mogul-based LED lamps.
- Incentives will not be provided for:
    - LEDs replacing existing LED lamps/fixtures;
    - Installation of screw-in or plug-in lighting measures in non-permanent and non- hardwired fixtures. For example, screw-in or plug-in lamps installed in refrigerator, oven, floor or desk lamps.
    - Additional fixture or lamp installations which are not a direct, one-for-one replacement are not eligible for incentives.
    - Products listed by DLC under a Specialty category do not qualify for the Primary Use designation.
- All new lighting must maintain minimum light levels as required by applicable codes.

[49] https://www.designlights.org/solid-state-lighting/qualification-requirements/producteligibility/

Table 34: ENERGY STAR® Certified Lighting Incentives

Equipment Type	Fixture Category	Incentive
ENERGY STAR® Certified LED Bulbs Qualified Products List[50]	All bulb types, except:	$1/bulb
	R14, R16, G16.5, G25, PAR16, PAR20, R20, BR20	$2/bulb
	G30, G40, PAR30, PAR40, R30, BR30, BR40	$3/bulb
ENERGY STAR® Certified LED Fixtures Qualified Products List[51] *All Fixture Categories to Right*	All fixture types, except	$5/fixture
	Accent Light Line Voltage	$15/fixture
	Linear Strip	$10/fixture
	Under Cabinet	$10/fixture

Table 35: DLC® Exterior Lighting Incentives

Equipment Type	DLC® Primary Use Category		Incentive
DesignLights Consortium® Qualified Fixtures *All Primary Use Categories to Right* Qualified Products List[52]	LED Architectural Flood and Spot Luminaires		$75/fixture
	LED Bollards		$50/fixture
	LED Fuel Pump Canopy		$100/fixture
	LED Mogul Screw-Base Replacements for HID Lamps	*New LED ≤ 125 watts*	$50/lamp
		New LED > 125 and ≤ 250 watts	$75/lamp
		LED > 250 watts	$150/lamp
	LED Outdoor Pole/Arm-Mounted Area and Roadway Luminaires		$100/fixture
	LED Large Outdoor Pole/Arm-Mounted Area and Roadway Retrofit		$150/fixture
	LED Outdoor Pole/Arm-Mounted Decorative Luminaires		$50/fixture
	LED Outdoor Wall-Mounted Area Luminaires		$100/fixture
	LED Parking Garage Luminaires		$100/fixture

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

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

[52] https://www.designlights.org/

Table 36: DLC® Interior Lighting Incentives

Equipment Type	DLC® Primary Use Category		Incentive
DesignLights Consortium® Qualified Fixtures *All Primary Use Categories to Right* Qualified Products List[10]	LED 4-Pin CFL Replacement		$5/lamp
	LED Wall Wash Lights		$55/fixture
	LED Stairwell and Passageway Luminaires		$45/fixture
	LED Track or Mono-point Directional Lighting Fixtures		$30/fixture
	LED High-bay and Low-bay	*New LED ≤ 125 watts*	$50/fixture
		New LED > 125 and ≤ 250watts	$75/fixture
		New LED > 250w	$150/fixture
	LED Linear Panels 1x4		$15/fixture
	LED Linear Panels 2x2		$15/fixture
	LED Linear Panels 2x4		$25/fixture
	LED Linear Ambient Luminaire		$20/ 2’ fixture
			$30/ 3’ fixture
			$45/ 4’ fixture
			$60/ 6’ fixture
			$75/ 8’ fixture
	LED Retrofit Kit for Linear Ambient Luminaire		$15/ 2’ fixture
			$15/ 4’ fixture
			$25/ 8’ fixture
	LED 2' Linear Replacement Lamp		$3/lamp
	LED 3' Linear Replacement Lamp		$5/lamp
	LED 4' Linear Replacement Lamp		$5/lamp
	LED 8' Linear Replacement Lamp		$10/lamp
	LED U-Bend Replacement Lamp		$5/lamp

Lighting Controls

Existing Buildings

Eligible

- Lighting controls incentives are only available for interior common areas in existing buildings.
- New construction/Gut-rehab will be considered if proposed controls exceed current code requirements.
- The controls must be installed in conjunction with new LED light fixtures meeting incentive eligibility requirements.
- Both wireless and hard-wired controls qualify.
- Occupancy sensors may not have manual override "ON" position.
- There is no incentive available for occupancy sensors installed in a space where they are prohibited by state or local building or safety code.
- If more than one eligible lighting control device is associated with the same eligible fixture, the incentive paid will be for the lighting control device that yields the largest incentive only
- Incentives for daylight dimming control systems will be paid only for eligible control systems designed in accordance with Illuminating Engineering Society of North America (IESNA) practice as delineated in "IESNA Recommended Practice of Daylighting."

Table 37: Lighting Controls Incentives

Equipment Type	Incentive
Occupancy Sensor – Wall Mounted	$20/sensor
Occupancy Sensor – Remote Mounted	$35/sensor
Day Lighting Dimmers	$45/fixture controlled
Hi-Low Dimming Controls	$35/fixture controlled
Advanced Lighting Control Systems (ALCS)	See Multifamily Custom Measures Section

Electric Chillers

New Construction

Eligible

Existing Buildings

Eligible

- Electrically operated comfort cooling air-cooled and water-cooled chillers are eligible for incentives.
- Constant speed chillers must meet the incentive minimum efficiency and the qualifying IPLV efficiency listed in the Electric Chiller Minimum Efficiency Requirements table to be eligible for the Base $/ton incentive listed in the table immediately below. Constant speed chillers are eligible for an additional Performance $/ton for each 0.01 kW/ton or 0.1 EER above the incentive minimum full load efficiency.
- Variable speed chillers must meet the incentive minimum efficiency and the qualifying IPLV efficiency listed in the Electric Chiller Minimum Efficiency Requirements table to be eligible for the Base $/ton incentive listed in the table immediately below. Variable speed chillers are eligible for an additional Performance $/ton for each full load 0.01 kW/ton or 0.1 EER above the minimum IPLV efficiency.
- 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.

Table 38: Electric Chiller Incentive Rates

Equipment Type	Capacity	Existing Buildings				New Construction			
		Constant Speed		Variable Speed		Constant Speed		Variable Speed	
		Base $/ton	**Performance $/ton**	**Base $/ton**	**Performance $/ton**	**Base $/ton**	**Performance $/ton**	**Base $/ton**	**Performance $/ton**
Air Cooled Chiller	tons < 150	$20.00	$3.50	$90.00	$4.00	$10.00	$3.50	$45.00	$4.00
	tons ≥ 150	$20.00	$2.75	$92.00	$4.00	$10.00	$2.75	$46.00	$4.00
Water Cooled Chiller, Positive Displacement	tons < 75	$13.00	$2.25	$40.00	$2.50	$6.50	$2.25	$20.00	$2.50
	75 ≤ tons < 150	$20.00	$2.00	$43.00	$2.00	$10.00	$2.00	$21.50	$2.00
	150 ≤ tons < 300	$17.00	$2.00	$43.00	$2.00	$8.50	$2.00	$21.50	$2.00
	300 ≤ tons < 600	$15.00	$2.25	$37.00	$2.00	$7.50	$2.25	$18.50	$2.00
	tons ≥ 600	$30.00	$2.00	$44.00	$2.00	$15.00	$2.00	$22.00	$2.00
Water Cooled Chiller, Centrifugal	tons < 150	$24.00	$2.25	$24.00	$2.75	$12.00	$2.25	$12.00	$2.75
	150 ≤ tons < 300	$10.00	$2.00	$30.00	$2.50	$5.00	$2.00	$15.00	$2.50
	300 ≤ tons < 400	$8.00	$2.00	$20.00	$2.00	$4.00	$2.00	$10.00	$2.00
	400 ≤ tons < 600	$8.00	$2.00	$25.00	$2.00	$4.00	$2.00	$12.50	$2.00
	tons ≥ 600	$8.00	$2.00	$25.00	$2.00	$4.00	$2.00	$12.50	$2.00

Table 39: Electric Chiller Minimum Efficiency Requirements

Equipment Type	Capacity	Constant Speed		Variable Speed		Constant Speed		Variable Speed	
		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 Chiller	tons < 150					10.3	13.7	9.7	16.12
	tons ≥ 150					10.3	14.0	9.7	16.42
Water Cooled Chiller, Positive Displacement	tons < 75	0.735	0.60	0.78	0.49				
	75 ≤ tons < 150	0.706	0.56	0.75	0.48				
	150 ≤ tons < 300	0.647	0.54	0.68	0.431				
	300 ≤ tons < 600	0.598	0.52	0.625	0.402				
	tons ≥ 600	0.549	0.50	0.585	0.372				
Water Cooled Chiller, Centrifugal	tons < 150	0.598	0.55	0.695	0.431				
	150 ≤ tons < 300	0.598	0.55	0.635	0.392				
	300 ≤ tons < 400	0.549	0.52	0.595	0.382				
	400 ≤ tons < 600	0.549	0.50	0.585	0.372				
	tons ≥ 600	0.549	0.50	0.585	0.372				

Electric HVAC

New Construction

Eligible

Existing Buildings

Eligible

- The proposed equipment must meet or exceed the efficiency requirements listed in the following tables in order to be eligible for an incentive. If more than one efficiency qualification is present (e.g.: SEER & EER), equipment specification must meet or exceed both ratings.
- Equipment efficiency and capacity at AHRI Rated Single or High Stage. Visit the AHRI Directory of Certified Products[53] to search for and download a certificate for your product to include with the application.
- For Split Systems, both indoor and outdoor components must be replaced/installed to qualify for an incentive.

Table 40: Packaged Terminal AC, HP, and Mini-HP Incentive Rates and Requirements

Equipment Type	Cooling Capacity (Btu/hr)	Existing Building			New Construction		
		Minimum Efficiency		Incentive $/ton	Minimum Efficiency		Incentive $/ton
		EER	COP		EER	COP	
Packaged Terminal AC - PTAC	< 7,000	12.0		$40/ton (all cooling capacities)	12.0		$20/ton (all cooling capacities)
	≥ 7,000	12.0			12.0		
	≥ 8,000	11.7			11.7		
	≥ 9,000	11.4			11.4		
	≥ 10,000	11.1			11.1		
	≥ 11,000	10.8			10.8		
	≥ 12,000	10.5			10.5		
	≥ 13,000	10.2			10.2		
	≥ 14,000	9.9			9.9		
	≥ 15,000	9.6			9.6		
Packaged Terminal Heat Pump – PTHP	< 7,000	12.0	3.4		12.0	3.4	
	≥ 7,000	12.0	3.4		12.0	3.4	
	≥ 8,000	11.7	3.3		11.7	3.3	
	≥ 9,000	11.4	3.3		11.4	3.3	
	≥ 10,000	11.1	3.2		11.1	3.2	
	≥ 11,000	10.8	3.2		10.8	3.2	
	≥ 12,000	10.5	3.1		10.5	3.1	
	≥ 13,000	10.2	3.1		10.2	3.1	
	≥ 14,000	9.9	3.0		9.9	3.0	
	≥ 15,000	9.6	3.0		9.6	3.0	

[53] http://ahridirectory.org/

Table 41: Mini-Split Heat Pumps

Equipment Type	Size	Minimum Efficiency			Incentive $/unit
		SEER	EER	HSPF	
Mini-Split Heat Pump	5.4	20.0	12.5	10.0	$500/unit

Table 42: Packaged and Split Systems Incentive Rates and Requirements

Equipment Type	Cooling Capacity (tons)	Tier	Existing Building				New Construction			
			Minimum Efficiency			Incentive $/ton	Minimum Efficiency			Incentive $/ton
			SEER	EER	IEER		SEER	EER	IEER	
Unitary HVAC Split System	< 5.4	1	14.0	13.0		$92	14.0	13.0		$92
	< 5.4	2	16.0	13.0		$105	16.0	13.0		$105
Unitary HVAC Single Package	< 5.4	1	14.3	13.0		$92	14.3	13.0		$92
	< 5.4	2	16.0	13.0		$103	16.0	13.0		$103
Unitary HVAC Split System	≥ 5.4 and < 11.25	1		11.5	13.0	$73		11.5	13.0	$73
	≥ 5.4 and < 11.25	2		12.5	14.0	$79		12.5	14.0	$79
	≥ 11.25 and < 20	1		11.5	12.4	$79		11.5	12.4	$79
	≥ 11.25 and < 20	2		12.0	14.0	$89		12.0	14.0	$89
Unitary HVAC Single Package	≥ 5.4 and < 11.25	1		11.5	13.0	$73		11.5	13.0	$73
	≥ 5.4 and < 11.25	2		12.5	14.0	$79		12.5	14.0	$79
	≥ 11.25 and < 20	1		11.5	12.4	$79		11.5	12.4	$79
	≥ 11.25 and < 20	2		12.0	14.0	$89		12.0	14.0	$89
Central DX AC	≥ 20 and < 63	1		10.5	11.6	$79		10.5	11.6	$79
	≥ 20 and < 63	2		11.0	12.5	$85		11.0	12.5	$85
	≥ 63	1		9.7	11.2	$72		9.7	11.2	$72
	≥ 63	2		10.0	12.0	$77		10.0	12.0	$77

Table 43: Air and Water Source Heat Pump Incentive Rates and Requirements

Equipment Type	Cooling Capacity (tons)	Tier	Existing Building						New Construction					
			Minimum Efficiency					Incentive $/ton	Minimum Efficiency					Incentive $/ton
			SEER	HSPF	EER	IEER	COP		SEER	HSPF	EER	IEER	COP	
Air Source Heat Pump Split System	< 5.4	1	14.3	8.4	13.0			$92	14.3	8.4	13.0			$92
	< 5.4	2	15.5	8.5	13.0			$100	15.5	8.5	13.0			$100
Air Source Heat Pump Single Package	< 5.4	1	14.3	8.2	13.0			$92	14.3	8.2	13.0			$92
	< 5.4	2	15.5	8.5	13.0			$100	15.5	8.5	13.0			$100
Air Source Heat Pump Split System	≥ 5.4 and <11.25	1			11.5	12.2	3.4	$73			11.5	12.2	3.4	$73
	≥ 5.4 and < 11.25	2			12.1	12.8	3.5	$77			12.1	12.8	3.5	$77
	≥ 11.25 and < 20	1			11.5	11.6	3.3	$79			11.5	11.6	3.3	$79
	≥ 11.25 and < 20	2			11.7	15.0	3.3	$82			11.7	15.0	3.3	$82
	≥ 20	1			9.5	10.5	3.2	$79			9.5	10.5	3.2	$79
	≥ 20	2			9.7	12.0	3.2	$82			9.7	12.0	3.2	$82
Air Source Heat Pump Single Package	≥ 5.4 and < 11.25	1			11.5	12.2	3.4	$73			11.5	12.2	3.4	$73
	≥ 5.4 and < 11.25	2			12.1	12.8	3.5	$77			12.1	12.8	3.5	$77
	≥ 11.25 and < 20	1			11.5	11.6	3.3	$79			11.5	11.6	3.3	$79
	≥ 11.25 and < 20	2			11.7	15.0	3.3	$82			11.7	15.0	3.3	$82
	≥ 20	1			9.5	10.5	3.2	$79			9.5	10.5	3.2	$79
	≥ 20	2			9.7	12.0	3.2	$82			9.7	12.0	3.2	$82
Water Source Heat Pump	< 1.4	1			12.4		4.3	$40			12.4		4.3	$20
	< 1.4	2			14.0		4.8	$45			14.0		4.8	$23
	≥ 1.4 and < 5.4	1			13.3		4.3	$60			13.3		4.3	$30
	≥ 1.4 and < 5.4	2			15.0		4.5	$68			15.0		4.5	$34
	≥ 5.4 and < 11.25	1			13.3		4.3	$80			13.3		4.3	$40
	≥ 5.4 and < 11.25	2			15.0		4.5	$90			15.0		4.5	$45

Table 44: Single Packaged Vertical AC and HP Incentive Rates and Requirements

Equipment Type	Cooling Capacity (tons)	Tier	Existing Building			New Construction		
			Minimum Efficiency		Incentive $/ton	Minimum Efficiency		Incentive $/ton
			EER	COP		EER	COP	
Single Packaged Vertical AC - SPVAC	< 5.4	1	10.2		$45	10.2		$10
	< 5.4	2	10.7		$47	10.7		$12
	≥ 5.4 and < 11.25	1	10.2		$45	10.2		$10
	≥ 5.4 and < 11.25	2	10.7		$47	10.7		$12
	> 11.25 and < 20	1	10.2		$45	10.2		$10
	> 11.25 and < 20	2	10.7		$47	10.7		$12
Single Packaged Vertical Heat Pump - SPVHP	< 5.4	1	10.2	3.1	$45	10.2	3.1	$10
	< 5.4	2	10.7	3.2	$47	10.7	3.2	$12
	≥ 5.4 and < 11.25	1	10.2	3.1	$45	10.2	3.1	$10
	≥ 5.4 and < 11.25	2	10.7	3.2	$47	10.7	3.2	$12
	≥ 11.25 and < 20	1	10.2	3.1	$45	10.2	3.1	$10
	≥ 11.25 and < 20	2	10.7	3.2	$47	10.7	3.2	$12

Table 45: Ground Source Heat Pump Incentive Rates and Requirements

- Open loop Ground Source Heat Pump equipment is not eligible for incentives.

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

HVAC Controls

- All controlled unit size capacities are determined at AHRI conditions. Equipment capacity at
- AHRI Certified Net Capacity and Rating at operating conditions. Visit the AHRI Directory of Certified Products[54] to search for and download a certificate for your product to include with the application.

New Construction

Eligible

Existing Buildings

Eligible

Table 46: HVAC Controls Incentive Rates and Requirements

Equipment Type	Requirements	Controlled Unit Size	Incentive
A/C Economizing Control	• Incentive is available for both retrofits and new A/C units without a current economizing control installed. • 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.**	≤ 5 tons	$85/control
		> 5 tons	$170/control
Boiler Economizing Controls	• Boiler economizing controls incentive available for both retrofits and new units without a current economizing control installed.	< 800 Mbh	$1,200/control
		> 800 MBh - < 1,600 MBh	$1,500/control
		≥1,600 MBh- < 3,000 MBh	$1,800/control
		≥3,000 MBh- <3,500 MBh	$2,100/control
		≥3,500 MBh- < 4,000 MBh	$2,400/control
		> 4,000 Mbh	$2,700/control
Other HVAC Controls	Other types of HVAC controls that exceed code requirements may be considered for incentives.		See Multifamily Custom Measures Section

[54] http://ahridirectory.org/

Gas Heating

- Efficiency must be listed on AHRI Certificate, ENERGY STAR® Listing or manufacturer's specifications.
- Ec: Combustion Efficiency
- Et: Thermal Efficiency

New Construction

Eligible

Existing Buildings

Eligible

Table 47: Gas Furnace and Infrared Heating Incentive Rates and Requirements

Equipment Type	Capacity	Requirement	Minimum Efficiency	Incentive
Gas Furnace	All Sizes		≥ 95% AFUE	$250/unit
			≥ 97% AFUE	$500/unit
Gas Infrared Heater	≤ 100,000 Btu/hr	Low intensity infrared heater with reflectors. For indoor use only.		$500/unit
	> 100,000 Btu/hr			$300/unit

Table 48: Non-Condensing Boiler Incentive Rates and Requirements

Equipment Type	Boiler Type	Size (Input MBH of boiler)	Minimum Efficiency	Incentive
Gas Boiler, Non-Condensing	Hot Water	< 300	85% AFUE	$400/unit
	Hot Water	≥ 300 to 1,500	85% Et	$1.75/MBh
	Hot Water	> 1,500 to 2,500	85% Et	$1.50/MBh
	Hot Water	> 2500 to 4,000	85% Ec	$1.30/MBh
	Steam, all except natural draft	< 300	82% AFUE	$400/unit
	Steam, all except natural draft	> 300 to 1,500	81% Et	$1.20/MBh
	Steam, all except natural draft	> 1,500 to 2,500	81% Et	$1.20/MBh
	Steam, all except natural draft	> 2,500 to 4,000	81% Et	$1.00/MBh
	Steam, natural draft	< 300	82% AFUE	$300/unit
	Steam, natural draft	≥ 300 to 1,500	79% Et	$1.00/MBh
	Steam, natural draft	> 1500 to 2,500	79% Et	$0.90/MBh
	Steam, natural draft	> 2,500 to 4,000	79% Et	$0.70/MBh
	All types	> 4,000		See Multifamily Custom Measures Section

Table 49: Condensing Boiler Incentive Rates and Requirements

Equipment Type	Boiler Type	Size (Input MBH of boiler)	Minimum Efficiency	Incentive
Gas Boiler, Condensing	Hot Water	< 300	90% AFUE	$500/unit
		≥ 300 to 1,500	91% Et	$2.20/MBh; Min $1000/unit
			88% Et	$2.00/MBh; Min $1000/unit
		> 1,500 to 2,500	91% Et	$2.20/MBh
			88% Et	$1.85/MBh
		> 2500 to 4,000	93% Ec	$2.00/MBh
			88% Ec	$1.55/MBh
		> 4,000		See Multifamily Custom Measures Section

Table 50: Combi Boiler Incentive Rates and Requirements

Equipment Type	Boiler Type	Size (Input MBH of boiler)	Minimum Efficiency	Incentive
Combi Boiler	Integrated water heating and space heating boiler	All	> 90% AFUE	$600/unit

Gas Water Heating

- Efficiency must be listed on AHRI Certificate, ENERGY STAR® Listing or manufacturer's specification sheet.
- These incentives are available only for the replacement of existing, free-standing water heaters.
- Water heaters installed inside dwelling units must be power vented.
- UEF = Uniform Energy Factor
- Et = Thermal Efficiency

Existing Buildings

Eligible

Table 51: Domestic Hot Water Heating Incentive Rates and Requirements

Equipment Type	Water Heater Type	Size (Input Rate)	Min Efficiency	Incentive
Domestic Hot Water Heaters	Gas-fired, Storage	≤ 75,000 Btu/h *(consumer/residential)*	≤55 gals ≥ 0.64 UEF	$300/unit
			>55 gals ≥ 0.85 UEF	$300/unit
		>75,000 Btu/h and ≤ 105,000 Btu/h *(residential duty commercial)*	≥ 82% Et or ≥ 0.64 UEF	$1.75 per MBH
			≥ 90% Et or ≥ 0.85 UEF	$3.50 per MBH
		>105,000 Btu/h *(commercial)*	≥ 82% Et	$1.75 per MBH
			≥ 92% Et	$3.50 per MBH
	Gas-fired, instant (tankless)	< 200,000 Btu/h *(consumer/residential)*	≥ 90% Et or ≥ 0.90 UEF	$300/unit
		≥ 200,000 Btu/h *(commercial)*	≥ 90% Et	$300/unit
	Gas-fired, Water Booster Heater	≤ 100 MBH	n/a	$35 per MBH
		> 100 MBH	n/a	$17 per MBH
	Electric Heat Pump	All	≥ 2.0 UEF	$500/unit
	Indirect	All	n/a	$300/unit

Low Flow Fixtures

- Both gas and electric hot water systems are eligible.
- For showerhead, both full showerhead and shower flow control valve installation is eligible.
- For aerator, both faucet aerator and flow control valve installation is eligible.
- Water recirculation system is also recommended to reduce hot water wait time.

New Construction

Eligible

Existing Buildings

Eligible

Table 52: Low Flow Fixture Requirements and Incentives

Equipment Type	Requirements	Incentive
Low Flow Showerhead	Tier 1 (2 GPM – EPA Water Sense)	$10/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

Pipe Insulation

- Both gas and electric hot water systems are eligible, for previously bare hot water distribution piping located in unconditioned spaces.
- Pipe insulation thickness must meet or exceed ASHRAE 90.1-2013, Table 6.8.3-1 for existing buildings and exceed same for new construction.
- Must provide length of pipe and pipe diameter with application.

New Construction

Eligible

Existing Buildings

Eligible

Table 53: Pipe Insulation Requirements and Incentives

Equipment Type	Requirements	Incentive
DHW	≤ 0.5 inch diameter piping	$3/linear foot
	> 0.5 inch diameter piping	$6/linear foot
Space Heating	≤ 0.5 inch diameter piping	$1/linear foot
	> 0.5 inch diameter piping	$2/linear foot

Variable Frequency Drives

New Construction

Eligible

Existing Buildings

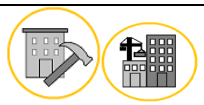
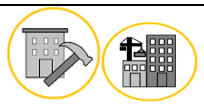
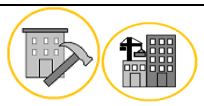
Eligible

- 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. Controlled HP less than the listed eligible values are ineligible for incentives. Controlled HP more than the listed eligible values in Table 22 should be submitted as a Custom measure.

Table 54: Variable Frequency Drives Incentive Rates

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

Table 55: Variable Frequency Drives Requirements

Equipment Type	Description	Eligible Size Range of Controlled Motor	Eligibility
VFD on VAV HVAC System	• Incentives for VFDs in HVAC VAV systems are available only for installing a VFD on existing VAV systems as an add-on measure. • Replacement of an existing VFD on VAV systems and installations on VAV systems in new construction are not eligible	5 HP ≤ 50 HP	 **Existing Buildings** only
VFD on Constant Volume HVAC System	• Incentives for VFDs in existing constant volume HVAC rooftop equipment (RTU) systems are provided for existing HVAC supply, exhaust, or return air fans only. • Throttling devices, such as inlet vanes or bypass dampers and throttling valves must be removed or permanently disabled.	0.5 HP ≤ 50 HP	 **Existing Buildings** only
VFD on Cooling Tower	• The Variable Frequency Drive (VFD) incentive for cooling towers is available for existing single speed motors only. • Replacement of two speed motor with single speed/VFD motor, replacement of existing VFD and new construction do not qualify	10 HP ≤ 50 HP	 **Existing Buildings** only
VFD on Chilled Water Pump	• The Variable Frequency Drive (VFD) incentive for pumps is available only for VFDs installed on centrifugal chilled water pump motors for HVAC systems	20 HP ≤ 50 HP	 **Existing Buildings** or **New Construction**
VFD on Air Compressor	• 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.	25 HP ≤ 200 HP	 **Existing Buildings** or **New Construction**
VFD on Boiler Feed Water Pump	• Incentive for existing single speed motors only. • Replacement of two-speed motor with single speed / VFD motor, replacement of existing VFD and new construction do not qualify. • VFDs must be controlled by an automatic signal in response to modulating air/water flows.	5 HP ≤ 50 HP	 **Existing Buildings** only
VFD on Boiler Fan Motor		5 HP ≤ 50 HP	
VFD on Kitchen Hood	• VFD incentives will not be provided for replacement of two-speed motor with single-speed VFD motor or replacement of existing VFD.	0.5 HP ≤ 50 HP	 **Existing Buildings** or **New Construction**

Gas Cooling

- 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.
- Chiller may be indirect or direct fired.

New Construction

Eligible

Existing Buildings

Eligible

Table 56: Gas Cooling Incentives

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

Table 57: 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

Path B – Bundled and Custom Measures Incentives

Table 58: Custom Measure Incentives

	Incentive Rate	UEZ/Affordable Housing (existing buildings only)
Custom Incentive	$0.15/kWh	$0.30/kWh
	$1.50/therm	$3.00/kWh

Path C - Whole-Building/Comprehensive Incentives

Existing Buildings

Table 59: Whole-Building/Comprehensive Incentives (Path C) for Existing Buildings

Total Source Energy Reduction	Incentive per Dwelling Unit
Minimum 5% Savings	$500
For every additional full % savings <16% Total Savings	$50
For every additional full % savings ≥ 16% Total Savings	$100[55]
UEZ/Affordable Housing Bonus	Additional 100% of the applicable amount(s) above

Consultant Incentive for Existing Buildings

An additional incentive will be paid to the pre-approved consultant (or duly certified rater) 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.

Table 60: Consultant Incentives for Existing Buildings in Path C

Consultant Incentive	Market Rate Housing Incentive per Dwelling Unit	Eligible UEZ/Affordable Housing Incentive per Dwelling Unit
	$100	$200

[55] 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)].

New Construction

Table 61: Whole-Building/Comprehensive Incentives (Path C) for New Construction

Compliance Level[56]	ENERGY STAR Multifamily New Construction (Per Dwelling Unit)
ENERGY STAR	$500 + $30/ MMBtu
ZERO ENERGY READY HOMES (ZERH)	$1,500 + $30/ MMBtu
ZERH + RE	$1,500 + $30/MMBtu + $750

Consultant Incentive for New Construction

An additional incentive will be paid to the pre-approved consultant (or duly certified rater) 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.

Table 62: Consultant Incentives for New Construction in Path C

Consultant Incentive	Market Rate Housing Incentive per Dwelling Unit	Eligible UEZ/Affordable Housing Incentive per Dwelling Unit
	$100	$200

[56] Compliance Level eligibility as determined by EPA and DOE. https://www.energystar.gov/newhomes/homes_prog_reqs/multifamily_national_page#site-built

Add-On - Savings Verification/Performance Incentive for Path C

Table 63: Add-On – Savings Verification for Existing Buildings in Path C

Actual Total Source Energy Reduction	Incentive per Dwelling Unit
Minimum 5% Savings	$75
For every additional full % savings <16% Total Savings	$7.50
For every additional full % savings ≥ 16% Total Savings	$15[57]
UEZ/Affordable Housing Bonus	Additional 100% of the applicable amount above

Table 64: Add-On – Savings Verification for New Construction in Path C

Performance	Incentive per Dwelling Unit
ENERGY STAR Portfolio Manager Certification	$150

[57] 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)].

Bulk Appliance Recycling

Table 65: Incentives for Bulk Appliance Recycling

Product Type	Incentive per Appliance
Refrigerator, Freezer	$50
Room Air Conditioner (RAC), Dehumidifier	$25

Appendix D: Distributed Energy Resources 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 FY20 Compliance Filings and in the Guidelines established for each program. The PA, 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.

Combined Heat and Power – Fuel Cell (CHP-FC) Incentives

C&I / Multifamily / DER Entity Incentive Caps

See Appendix B, Commercial and Industrial Incentives and General Rules.

Total Cost Incentive Cap

See Appendix B, Commercial and Industrial Incentives and General Rules.

CHP-FC Incentive Levels

Table 66: 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 combination[4]: • Gas Internal Combustion Engine • Gas Combustion Turbine • Microturbine FCHR	≤500 kW[1]	$2.00	30-40%[2]	$2 million
	>500 kW – 1 MW[1]	$1.00		
	>1 MW – 3 MW[1]	$0.55	30%	$3 million
	>3 MW[1]	$0.35		
FCwoHR	All of the above[1]	Applicable amount above	30%	$1 million
Waste Heat to Power (WHP)[3] 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[1]	$1.00	30%	$2 million
	>1 MW[1]	$0.50	30%	$3 million

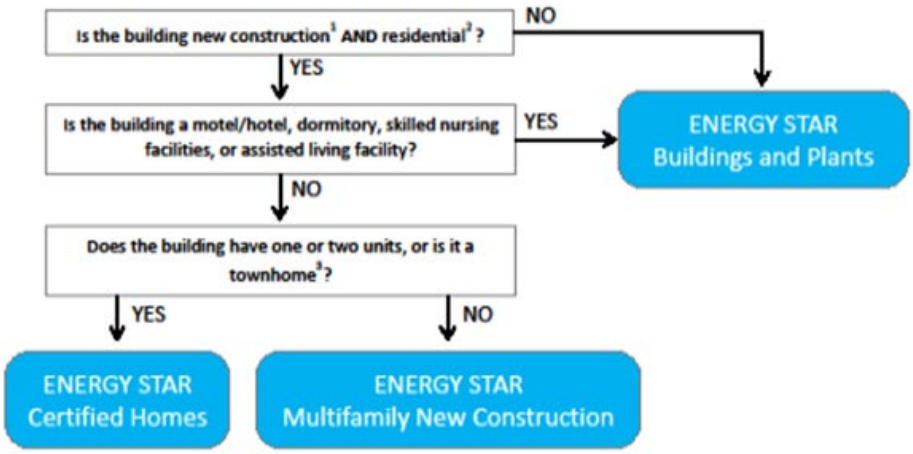
1. Incentives are tiered, which means the incentive levels vary based upon the installed rated capacity, as listed in the chart above. For example, a 4 MW CHP system would receive $2.00/watt for the first 500 kW, $1.00/watt for the second 500 kW, $0.55/watt for the next 2 MW and $0.35/watt for the last 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.

Appendix E: EPA ENERGY STAR Multifamily Decision Tree

EPA ENERGY STAR Multifamily New Construction Program Decision Tree, Version 2.0



NOTES:

1. New construction can include significant gut rehabilitations when defined as a change of use, reconstruction of a vacant structure, or when construction work requires that the building be out of service for at least 30 consecutive days and the building is able to meet all the program requirements.
2. The primary use of the building must be for residential purpose, i.e. the residential and residential associated common space must occupy more than 50% of the building's occupiable[4] square footage. A garage is not considered 'occupiable'. Common space includes any spaces within the building that serves a function in support of the residential part of the building that is not part of a dwelling unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, and residential recreation rooms. This also includes offices used by building management, administration or maintenance and all special use areas located in the building to serve and support the residents such as day-care facilities, gyms, dining halls, etc.
3. Townhomes may choose to use the Multifamily New Construction Checklists as well, but they must use the ERI Path and Certified 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.
4. Per ASHRAE 62.2-2010, occupiable space is any enclosed space inside the pressure boundary and intended for human activities or continual human occupancy, including, but not limited to, areas used for living, sleeping, dining, and cooking, toilets, closets, halls, storage and utility areas, and laundry areas.

December 2018

Appendix F: FY20 Program Budgets (after True-up)

FY2020		*Cost Category Budgets*					
Program/Budget Line	*Total Budget (10-15-19)*	*Administration*	*Sales, Marketing, Website*	*Training*	*Rebates, Grants and Other Direct Incentives*	*Rebate Processing and QA*	*Evaluation*
TRC Total	**$294,004,428.91**	**$14,458,843.80**	**$5,384,096.96**	**$622,000.00**	**$261,791,955.73**	**$11,747,532.42**	**$0.00**
EE Programs	**$260,884,606.26**	**$13,105,145.82**	**$527,884.08**	**$597,000.00**	**$236,315,305.96**	**$10,339,270.40**	**$0.00**
Res EE Programs	***$76,423,548.84***	***$4,998,045.59***	***$162,425.88***	***$447,000.00***	***$63,711,965.15***	***$7,104,112.22***	***$0.00***
Existing Homes	$33,030,481.60	$2,719,211.05	$81,213.00	$420,000.00	$27,133,335.35	$2,676,722.20	$0.00
RNC	$17,053,370.24	$1,279,874.67	$40,606.44	$27,000.00	$14,871,076.75	$834,812.38	$0.00
EE Products	$26,339,697.00	$998,959.87	$40,606.44	$0.00	$21,707,553.05	$3,592,577.64	$0.00
C&I EE Programs	***$176,551,452.42***	***$7,167,394.07***	***$324,851.76***	***$125,000.00***	***$166,160,106.69***	***$2,774,099.90***	***$0.00***
C&I Buildings	$117,238,236.35	$5,329,609.99	$243,638.88	$75,000.00	$109,379,921.36	$2,210,066.12	$0.00
LGEA	$4,682,805.60	$881,823.55	$40,606.44	$25,000.00	$3,420,347.81	$315,027.80	$0.00
DI	$54,630,410.47	$955,960.53	$40,606.44	$25,000.00	$53,359,837.52	$249,005.98	$0.00
Multi-family EE	***$7,909,605.00***	***$939,706.16***	***$40,606.44***	***$25,000.00***	***$6,443,234.12***	***$461,058.28***	***$0.00***
Multifamily	$7,909,605.00	$939,706.16	$40,606.44	$25,000.00	$6,443,234.12	$461,058.28	$0.00
Distributed Energy Resources	**$26,344,822.65**	**$629,059.76**	**$40,606.44**	**$0.00**	**$25,476,649.77**	**$198,506.68**	**$0.00**
CHP - RE Storage	$21,204,822.65	$629,059.76	$40,606.44	$0.00	$20,414,084.79	$121,071.66	$0.00
RE Storage	$140,000.00	$0.00	$0.00	$0.00	$135,000.00	$5,000.00	$0.00
Fuel Cells	$5,000,000.00	$0.00	$0.00	$0.00	$4,927,564.98	$72,435.02	$0.00
RE Programs	**$2,000,000.00**	**$724,638.22**	**$40,606.44**	**$25,000.00**	**$0.00**	**$1,209,755.34**	**$0.00**
SREC Registration	$2,000,000.00	$724,638.22	$40,606.44	$25,000.00	$0.00	$1,209,755.34	$0.00
Planning and Administration	**$4,775,000.00**	**$0.00**	**$4,775,000.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Outreach and Education	***$4,775,000.00***	***$0.00***	***$4,775,000.00***	***$0.00***	***$0.00***	***$0.00***	***$0.00***
Outreach, Website, Other	$4,775,000.00	$0.00	$4,775,000.00	$0.00	$0.00	$0.00	$0.00

Appendix G: FY20 Program Goals and Performance Metrics

NJCEP FY20 Energy Savings Goals: Portfolio Summary					
Energy Efficiency	**Annual MWH Savings FY20**	**Lifetime MWH Savings FY20**	**Annual MW Savings FY20**	**Annual MMBTU Savings FY20**	**Lifetime MMBTU Savings FY20**
RES-HVAC	3,396	50,846	2.5	169,508	3,276,582
RES-New Construction	4,996	99,917	2.0	66,979	1,339,571
RES-Energy Efficient Products	597,241	8,722,884	51.0	12,683	142,603
RES-HPwES	2,357	42,526	0.7	89,059	1,939,711
RESIDENTIAL TOTAL	**607,991**	**8,916,173**	**56.3**	**338,228**	**6,698,467**
C&I-New Construction	7,547	150,720	1.4	322	6,151
C&I-Retrofit	146,967	2,311,790	26.9	36,491	637,494
C&I-Pay-for-Performance NC	12,037	192,350	5.1	107,465	1,787,143
C&I-Pay-for-Performance	22,950	362,143	5.3	84,211	1,844,216
C&I-Local Govt Energy Audit	0	0	0.0	0	0
C&I-Direct Install	44,684	668,916	9.7	152,738	2,617,928
C&I-Large Energy Users	16,945	295,019	2.3	7,881	141,851
C&I-Pilot-Customer Tailored	2,191	34,461	0.3	544	9,503
C&I TOTAL	**253,321**	**4,015,400**	**51.0**	**389,651**	**7,044,286**
Multifamily	**1,216**	**19,452**	**0.2**	**14,005**	**224,081**
DER TOTAL	**2,617**	**45,790**	**0.5**	**16,892**	**295,605**
PORTFOLIO TOTAL	**865,144**	**12,996,815**	**108.0**	**758,777**	**14,262,439**

Appendix H: 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 the residential, commercial, and industrial New Jersey Clean Energy Program (NJCEP) energy efficiency 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.[58]

Participant Cost Test: 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), 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.

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

[58] California Standard Practice Manual. Economic Analysis of Demand-Side Programs and Projects. (October 2001).

Societal Cost Test: 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 not included.

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

FY20 Cost-Benefit Analysis Results

Sector	Program	PCT	PACT	RIM	TRC	SCT
C&I	New Construction	12.1	3.1	0.4	2.4	4.9
	Retrofit	4.1	4.1	0.4	1.5	2.9
	Direct Install	4.1	1.4	0.3	1.3	2.3
	P4P NC	6.4	2.4	0.4	2.5	3.6
	P4P EB	4.7	3.5	0.4	1.7	3.0
	LEUP	2.8	1.5	0.3	0.8	1.7
	Customer Tailored	2.6	1.7	0.3	0.7	1.6
	C&I Sector	**4.2**	**2.5**	**0.4**	**1.4**	**2.7**
Res	New Construction	1.9	0.9	0.3	0.6	0.8
	HPwES	0.9	0.3	0.2	0.2	0.2
	HVAC	3.2	1.2	0.4	1.0	1.1
	EE Products	27.9	8.9	0.2	5.0	6.3
	Res Sector	**13.3**	**4.2**	**0.2**	**2.4**	**2.8**
Multifamily		2.7	0.5	0.2	0.4	0.6
Energy Efficiency Portfolio		**8.1**	**3.3**	**0.3**	**1.9**	**2.7**
Distributed Energy Resources (DER)		**0.5**	**0.9**	**0.3**	**0.1**	**0.2**

Appendix I: C&I Interim Program Incentive Tables

C&I Interim Program Incentive Tables

These C&I Interim Program Incentive Tables are for C&I programs that will expire during FY20 as they are merged into the new FY20 C&I Buildings Program. They reflect the revisions described in the Introduction, Transitions & Revisions to Interim Programs section of this Compliance Filing. During FY20 they will be superseded by the requirements and incentives provided for in the new C&I Buildings Program and/or the new Multifamily Program as part of the transition described in the Introduction, Transitions & Revisions to Interim Programs section of this Compliance Filing.

Table 67: Interim C&I Custom Measure Incentives

Custom Measure Incentives:	
Measures not covered by the prescriptive incentive tables	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. Based on estimated savings - minimum of 75,000 kWh or 1,500 Therms saved annually required. Proposed projects must exceed ASHRAE 90.1-2013 by 2% where applicable. In cases where ASHRAE standards do not apply, the Program will require that custom measures exceed industry standards per the Consortium for Energy Efficiency (CEE), EPA ENERGY STAR, and/or others. Minimum savings requirements may be waived by the Program Manager on a case-by-case basis if project savings are within 10% of these minimum requirements. Projects with both electric and gas savings may be considered for incentives if either of the minimum savings requirements are met. Multiple smaller applications may not be grouped to meet minimum savings requirements.

Enhanced Incentive

An applicant will be eligible for an enhanced incentive equal to an additional 100% of the incentive values set forth in the tables below, but subject to a cap of the applicant's cost for the project (material and labor), for a project that is installed at a facility that meets either of the below criteria:

1. Is located within a designated UEZ or OZ. As used herein, a UEZ is as identified on the New Jersey Department of Community Affairs website https://www.nj.gov/njbusiness/financing/uez/ and an OZ is also as identified on NJDCA's website https://www.state.nj.us/dca/divisions/lps/opp_zones.html#where; or
2. Is owned or operated by a public K-12 school or county or municipal entity.

For the avoidance of doubt, (a) applicants must also follow all program rules as outlined in the Program Guide and application Terms and Conditions.

Table 68: Interim C&I Chiller Incentives

Electric Chillers: FY20 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 < 150	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	**FY20 Incentive**
Water Cooled Chillers	Incentive table revised to reflect New Construction and Existing Buildings separately shown above.
Air Cooled Chillers	Incentive table revised to reflect 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 Custom measure path (≥1.1 full or part load COP)
Desiccant Systems	Up to $1.00 per cfm (gas or electric)

Table 69: Interim C&I Electric HVAC Incentives

Technology Classification	**FY20 Incentive**
HVAC Systems:	***Please refer to tables below for HVAC minimum efficiency standards and incentives***

			Existing Building and New Construction					
			Minimum Qualifying Efficiency					Incentive
SmartStart Equipment Type	Cooling Capacity tons	Incentive Tier	SEER	HSPF	EER	IEER	COP	$/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 70: Interim C&I Gas HVAC Incentives

Technology Classification	FY20 Incentive
Gas Fired Boilers: FY20 Efficiency Levels	

Boiler Type	Size Category (MBh input)	Non-Condensing	Condensing Tier 1	Condensing Tier 2
Hot Water	**< 300**	**85% AFUE**	**88% AFUE**	**93% AFUE**
Hot Water	**≥ 300 and ≤ 2,500**	**85% Et**	**88% Et**	**91% Et**
Hot Water	**> 2,500**	**85% Ec**	**88% Ec**	**93% Ec**
Steam	**< 300**	**82% AFUE**	**NA**	**NA**
Steam, all except natural draft	**≥ 300 and ≤ 2,500**	**81% Et**	**NA**	**NA**
Steam, all except natural draft	**> 2,500**	**81% Et**	**NA**	**NA**
Steam, natural draft	**≥ 300 and ≤ 2,500**	**79% Et**	**NA**	**NA**
Steam, natural draft	**> 2,500**	**79% Et**	**NA**	**NA**

< 300 MBH	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

Technology Classification	FY20 Incentive
≥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
> 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

Technology Classification	FY20 Incentive
Gas Furnaces	
AFUE to ≥ 95% ≥ 2.0% Fan Efficiency, ENERGY STAR qualified Gas Infrared Heating	Incentive up to $400 per furnace Low Intensity Infrared Heater with Reflectors ≤100,000 btu/hr. - $500 per unit >100,000 btu/hr. - $300 per unit Indoor Only
Domestic Hot Water Pipe Wrap Insulation (All Building Types)	≤0.5" Diameter - $1 per linear foot > 0.5" Diameter $2 per linear foot

Table 71: Interim C&I Gas Water Heating Incentives

Technology Classification	FY20 Incentive			
Gas Fired Water Heating:	**Gas Water Heater Type and Capacity**		**Minimum Efficiency**	**Incentive Rate**
	Gas-fired, Storage	**≤ 75,000 Btu/h** ***(consumer)***	≥ 0.67 EF or ≥ 0.64 UEF	$1.75/MBH
			≥ 0.87 EF or ≥ 0.81 UEF	$3.50/MBH
		>75,000 Btu/h and ≤ 105,000 Btu/h ***(residential duty commercial)***	≥ 82% Et or ≥ 0.64 UEF	$1.75/MBH
			≥ 90% Et or ≥ 0.85 UEF	$3.50/MBH
		>105,000 Btu/h ***(commercial)***	≥ 82% Et	$1.75/MBH
			≥ 92% Et	$3.50/MBH
	Gas-fired, instant (tankless)	**< 200,000 Btu/h** ***(consumer)***	≥ 90% Et or ≥ 0.82 EF or ≥ 0.81 UEF	$300/tankless water heater
		≥ 200,000 Btu/h ***(commercial)***	≥ 90% Et	$300/tankless water heater

Technology Classification	FY20 Incentive
Gas Fired Water Booster Heaters:	
≤ 100 MBH	Up to $35 per MBH
> 100 MBH	Up to $17 per MBH
Hot Water Controls:	
Low Flow Faucet Aerators All commercial building types	Tier 1 (1.5 GPM – EPA water Sense) - $2/faucet Tier 2 (1 GPM or less) - $4/faucet
Low Flow Showerheads All commercial building types	Tier 1 (2 GPM – EPA water Sense) - $10/showerhead Tier 2 (1.5 GPM or less) - $15/showerhead

Table 72: Interim Variable Frequency Drives

Variable Frequency Drives

VAV - Variable Air Volume HVAC System:	5 HP ≤ 50 HP
CV - Constant Volume HVAC System:	0.5 HP ≤ 50 HP
T - Cooling Tower:	10 HP ≤ 50 HP
P - Chilled Water Pump:	20 HP ≤ 50 HP
A - Air Compressor:	25 HP ≤ 200 HP
BP - Boiler Feed Water Pump:	5 HP ≤ 50 HP
BF - Boiler Fan Motor:	5 HP ≤ 50 HP
K- Kitchen Hood:	0.5 HP ≤ 50 HP

- Controlled HP is the cumulative motor HP controlled by each VFD.
- Controlled HP less than the listed eligible values are ineligible for incentives.
- Controlled HP more than the listed eligible values should use the C&I Custom program.
- 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.
- 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.

Motor Size (HP)	Incentive ($)
0.5	$50
1	$75
2	$100
3	$200
4	$300
5	$900
7.5	$1,000
10	$1,100
15	$1,200
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 73: Interim Motors

Technology Classification	FY20 Incentive
:	
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 74: Interim C&I Lighting Incentives

Technology Classification	FY20 Incentive
New Construction & Major Gut Renovation for Existing Buildings	
New Construction and Major Gut Renovation - Performance Based Lighting incentives for indoor and outdoor installations (attached to building)	Lighting projects must exceed ASHRAE 90.1-2013 lighting power density (LPD) standards Eligible incentive is the lesser of $30 per eligible fixture or $1/Watt over the LPD baseline per qualified area Available for New Construction and Existing Buildings. Areas within existing building eligible only if existing lighting completely removed. New construction additions (add-ons) to an existing building are eligible
Existing Buildings	
Prescriptive Lighting:	
LED Prescriptive Lighting: For incentive eligibility, LED equipment must be listed on the current ENERGY STAR or Design Lights Consortium qualified products list. Incentives will not be provided for: • LEDs replacing existing LED lamps/fixtures; • Installation of otherwise eligible screw-in/plug-in lighting measures that are (a) not hard-wired or not permanent (example - refrigerator, oven, floor/desk lamps) or (b) retail display lighting.	
Technology Classification	**FY20 Incentive**
LED Lamp (Integral/Screw-In)	
G30, G40, PAR30, PAR40, R30, BR30, BR40	Up to $3/lamp for Energy Star lamps
R14, R16, G16.5, G25, PAR16, PAR20, R20, BR20	Up to $2/lamp for Energy Star lamps
All Other Energy Star Integral/Screw-in Lamp Types	Up to $1/lamp for 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

Technology Classification	FY20 Incentive
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	Incentive for replacement of fluorescent lighting system in medium or low temperature display cases. Technical requirements of this incentive are listed on the prescriptive lighting application. Up to $30 per display case
LED Portable Desk Lamps	Up to $5 per fixture
LED Portable Floor Lamp	Up to $5 per fixture
LED Wall-wash Lights	Up to $55 per fixture
LED Stairwell and Passageway Luminaires	Up to $45 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

Technology Classification	FY20 Incentive
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 Commercial 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 $75 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 Downlight Pendant	Up to $5/fixture

Technology Classification	FY20 Incentive
LED Recessed Downlight	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 ENERGY STAR Security	Up to $5/fixture
LED ENERGY STAR Wall Sconces	Up to $5/fixture
LED Wrapped Lens	Up to $5/fixture
LED Accent Light Line Voltage	Up to $15/fixture
LED Linear Strip	Up to $10/fixture
LED Under Cabinet	Up to $10/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 Custom measure path.	

Table 75: Interim C&I Lighting Controls Incentives

Technology Classification	FY20 Incentive
Lighting Controls:	**Wireless and Hard-Wired Only**
Occupancy Sensors (Turning fixtures off in Existing facilities only) (e.g. ceiling) Wall Mounted Remote Mounted	Up to $20 per control Up to $35 per control
Day Lighting Dimmers – All facilities LED Fixtures	$45 per fixture controlled. New construction projects not eligible unless exceeding code requirement under ASHRAE 90.1-2013
Hi-Low Controls - All facilities: LED Fixtures	$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 the Custom program. To be eligible, ALCS must be listed on the current Design Lights Consortium qualified products list.

Table 76: Interim C&I Refrigeration Technology and Controls Incentives

Technology Classification	FY20 Incentive
Refrigeration Controls: *Door heater and electric defrost controls not eligible for new construction projects.*	
Door Heater Control	$50 per control
Electric Defrost Control	$50 per control
Novelty Cooler Shutoff	$50 per control
Evaporator Fan Control	$75 per control

Technology Classification	FY20 Incentive
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
Floating Head and Suction Controls:	
Floating Head Pressure Controls on Commercial Air-Cooled Refrigeration System	$75 per ton; commercial facilities only
Floating Head Pressure Controls on Commercial Evap-Cooled Refrigeration System	$75 per ton; commercial facilities only
Floating Head Pressure Controls on Process Evap-Cooled Refrigeration System	$75 per ton; refrigerated warehouse only
Floating Suction Pressure Controls on Commercial Refrigeration System	$50 per ton; commercial facilities only
Floating Suction Pressure Controls on Process Refrigeration System	$50 per ton; refrigerated warehouse only

Table 77: Interim C&I Food Service Incentives

Technology Classification	FY20 Incentive
Commercial Dishwashers: Equipment must be qualified by the current version* of ENERGY STAR or CEE[59]	
Under Counter	$400 per unit
Door Type	$700 per unit
Single Tank Conveyor	$1,000 per unit
Multiple Tank Conveyor	$1,500 per unit

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

<table>
<tr><th>Technology Classification</th><th>FY20 Incentive</th></tr>
<tr><td colspan="2">Commercial Combination Oven/Steamer (Electric): Equipment must be qualified by the current version of ENERGY STAR, CEE or ASTM criteria defined below.

o ASTM Criteria:
o Must meet the idle energy rate requirements in the Electric Combination Oven/Steamer Table, utilizing American Society for Testing and Materials (ASTM) F2861.
o 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.
o 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.</td></tr>
<tr><td>Pan Capacity

Less than 15 pans

15-28 pans

Greater than 28 pans</td><td>$1,000 per oven</td></tr>
<tr><td colspan="2">Commercial Combination Oven/Steamer (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 cooking energy efficiency of 38 percent or greater in steam mode and 44 percent or greater in convection mode, utilizing ASTM F2861.
o Must meet the idle energy rate requirements in the Gas Commercial Combination Oven/Steamer Table, utilizing ASTM F2861.
o 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.</td></tr>
<tr><td>Pan Capacity

Less than 15 pans

15-28 pans

Greater than 28 pans</td><td>$750 per oven</td></tr>
</table>

Technology Classification	FY20 Incentive
Commercial Convection Oven (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 70 percent or more, utilizing ASTM F1496. o Full-size electric ovens must have a tested idle energy rate of 1.6 kW or less, utilizing ASTM F1496. o Half-size electric ovens must have a tested idle energy rate of 1.0 kW or less, utilizing ASTM F1496.	
Commercial Convection Oven (Electric)	$350 per oven
Commercial Convection Oven (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 44 percent or greater and an idle energy rate of 13,000 Btu/h or less, utilizing ASTM F1496.	
Commercial Convection Oven (Gas)	$500 per oven
Commercial Rack Oven (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 baking energy efficiency of 50 percent or greater, utilizing ASTM F2093.	
Commercial Rack Oven Single (Gas)	$1,000 per single oven
Commercial Rack Oven Double (Gas)	$2,000 per double oven

Technology Classification	FY20 Incentive
Commercial Conveyor Oven (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 baking energy efficiency of 42 percent or greater, utilizing ASTM F1817. o 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. o 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. o 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. o ASTM Criteria: o 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. o 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. o ASTM Criteria: o 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. o Multiple vat configurations are paid per qualifying vat.	
Commercial Fryer (Gas)	$749 per vat

Technology Classification	FY20 Incentive
Commercial Large Vat Fryer (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 (French fry) cooking energy efficiency of 80 percent or greater, utilizing ASTM F2144. o Multiple vat configurations are paid per qualifying vat.	
Commercial Large Vat Fryer (Electric)	$200 per vat
Commercial Large Vat Fryer (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 (French fry) cooking energy efficiency of 50 percent or greater, utilizing ASTM F2144. o Multiple vat configurations are paid per qualifying vat.	
Commercial Large Vat Fryer (Gas)	$500 per vat
Commercial Griddle (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 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.	
Commercial Griddle (Electric)	$300 per griddle
Commercial Griddle (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 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 Griddle (Gas)	$125 per griddle

Technology Classification	FY20 Incentive
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
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

Technology Classification	FY20 Incentive
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 ENERGY STAR Solid Door Refrigerators – Internal volume 15 ft^3–29.9 ft^3 ENERGY STAR Solid Door Refrigerators – Internal volume 30 ft^3–49.9 ft^3 ENERGY STAR Solid Door Refrigerators – Internal volume ≥ 50 ft^3	$50 per unit $75 per unit $125 per unit $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 ENERGY STAR Glass Door Freezers – Internal volume 15 ft^3–29.9 ft^3 ENERGY STAR Glass Door Freezers – Internal volume 30 ft^3–49.9 ft^3 ENERGY STAR Glass Door Freezers – Internal volume ≥ 50 ft^3	$200 per unit $250 per unit $500 per unit $1,000 per unit

Technology Classification	FY20 Incentive
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	
ENERGY STAR Solid Door Freezers – Internal volume ≥ 50 ft^3	$300 per unit
	$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)	
ENERGY STAR Ice Machine (301–400 lbs./day)	$50 per unit
ENERGY STAR Ice Machine (401–500 lbs./day)	$75 per unit
ENERGY STAR Ice Machine (501–1000 lbs./day)	
ENERGY STAR Ice Machine (1001–1500 lbs./day)	$75 per unit
ENERGY STAR Ice Machine (greater than 1500 lbs./day)	
Super-Efficient Ice Machine (101–200 lbs./day)	$125 per unit

Technology Classification	FY20 Incentive
Super-Efficient Ice Machine (201–300 lbs./day)	$200 per unit
Super-Efficient Ice Machine (301–400 lbs./day)	$250 per unit
Super-Efficient Ice Machine (401–500 lbs./day)	$100 per unit
Super-Efficient Ice Machine (501–1000 lbs./day)	$100 per unit
Super-Efficient Ice Machine (1001–1500 lbs./day)	$150 per unit
Super-Efficient Ice Machine (greater than 1500 lbs./day)	$150 per unit
	$250 per unit
	$400 per unit
	$500 per unit

Note: The incentives identified above may be reduced with the approval of the Office of Clean Energy.

Appendix J: Outreach Plan

Attached below.