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NATIONAL HOUSING TRUST

June 3, 2021

Ms. Brinda Westbrook – Sedgwick
Commission Secretary
Public service Commission of the District of Columbia
1325 G Street NW, Suite 800
Washington, DC 20005

Re: Formal Case No. 1148, In The Matter of The Investigation Into The Establishment and Implementation of Energy Efficiency and Energy Conservation Programs Targeted Towards Both Affordable Multifamily Units and Master Metered Multifamily Buildings Which Include Low And Limited Income Residents In The District of Columbia

Dear Ms. Westbrook-Sedgwick,

In Order No. 20663, the Public Service Commission ("Commission") accepted and approved the Energy Efficiency and Energy Conservation ("EEEC") Task Force's ("Task Force") recommendation to select the International Center for Appropriate & Sustainable Technology as the program implementer for the Whole-Building, Deep Energy Retrofit Program in the District of Columbia. The Order also directed the Task Force to file with the Commission the final program design as approved by the Task Force.

On March 18, 2021, National Housing Trust ("NHT") and National Consumer Law Center ("NCLC"), acting in our role as EEEC Task Force Co-Chairs, filed the final program design that was reviewed and approved by the Task Force. Subsequent EEEC Task Force discussions have resulted in changes to the program design plan related to the inclusion of incentives for gas efficiency and fuel-switching measures. The revised program design plan is enclosed.

Best Regards,

Todd Nedwick
National Housing Trust
EEEC Task Force Co-Chair

Olivia Wein
National Consumer Law Center
EEEC Task Force Co-Chair

Enclosure
cc: Parties of Record

CERTIFICATE OF SERVICE

I hereby certify on this 3rd day of June, that the attached plan was filed electronically on behalf of the National Housing Trust and the National Consumer Law Center in Formal Case No. 1148 and served on the following parties of record by email:

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/s/ *Todd Nedwick*

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Whole Building Deep Retrofit Multifamily Energy Efficiency Implementation

Program Design

Prepared for

pepco®

An Exelon Company

Prepared by the

International Center for Appropriate & Sustainable Technology

866.590.4377

Table of Contents

Program Design

The Whole Building Deep Retrofit Multifamily Energy Efficiency Program offers a 'custom' incentive for any and all energy efficiency measures (EEMs) that can provide energy savings to the Pepco program. ICAST will leverage program incentives to install capital intensive measures such as HVAC, domestic hot water (DHW), building shell, and appliance measures that tend to have a higher persistence of savings and aid the program's lifetime savings goals and not encourage the installation of only "low hanging fruit" measures such as lighting and low-flow water measures. The program will encourage 'deep retrofit' projects that have a mix of both high-cost, high-savings and low-cost, low-savings measures.

A sample list of energy efficiency measures (EEMs) for the Pepco program are provided in Table 1. This list is based primarily on the Mid-Atlantic technical resource manual (TRM) and covers lighting, HVAC, DHW, and appliance/miscellaneous measures.

Table 1: ICAST's sample of proposed EEMs for 2021 Pepco Program

LIGHTING
RECESSED DOWNLIGHT LUMINAIRE
ENERGY STAR SCREW-BASED LAMP (NON-DI)
ENERGY STAR SCREW-BASED LAMP (DI)
OCCUPANCY SENSOR (WALL-MOUNTED)
[COMMERCIAL] LED EXIT SIGN
[COMMERCIAL] RECESSED DOWNLIGHT LUMINAIRE
[COMMERCIAL] OUTDOOR POLE/ARM OR WALL-MOUNTED AREA / ROADWAY LUMINAIRE
[COMMERCIAL] HIGH BAY LUMINAIRE
[COMMERCIAL] HIGH INTENSITY DISCHARE SCREW-BASE
[COMMERCIAL] PARKING GARAGE / CANOPY LUMINAIRES
[COMMERCIAL] EXTERIOR FLOOD AND SPOT LUMINAIRES
[COMMERCIAL] ENERGY STAR SCREW-BASED LAMP
[COMMERCIAL] FOUR-PIN BASED LAMP
[COMMERCIAL] 1 X 4, 2 X 2, 2 X 4 LUMINAIRES
[COMMERCIAL] FOUR FOOT LINEAR REPLACEMENT LAMPS
[COMMERCIAL] OCCUPANCY SENSOR
HEATING, VENTILATION, AIR CONDITIONING (HVAC)
SMART THERMOSTAT
ROOM AIR CONDITIONER
CENTRAL AIR CONDITIONING
HEATING, VENTILATION, AIR CONDITIONING (HVAC) ***continued***
HIGH EFFICIENCY GAS FURNACE
HIGH EFFICIENCY GAS BOILER
GAS COMBINATION ("COMBI") BOILER

AIR SOURCE HEAT PUMP
DUCTLESS HEAT PUMP
HIGH EFFICIENCY BATHROOM EXHAUST FAN
ENERGY STAR CEILING FAN
[COMMERCIAL] ELECTRIC CHILLER
[COMMERCIAL] HIGH EFFICIENCY GAS BOILER
[COMMERCIAL] VARIABLE FREQUENCY DRIVE FOR HVAC
[COMMERCIAL] AC TUNE-UP
DOMESTIC HOT WATER (DHW)
LOW-FLOW KITCHEN AERATOR
LOW-FLOW BATHROOM AERATOR
LOW-FLOW SHOWERHEAD
THERMOSTATIC RESTRICTOR SHOWER VALVE
HIGH EFFICIENCY GAS WATER HEATER
HEAT PUMP WATER HEATER
DOMESTIC HOT WATER PIPE WRAP
WATER HEATER TANK WRAP
APPLIANCE / MISCELLANEOUS
ENERGY EFFICIENT REFRIGERATOR
ENERGY EFFICIENT DISHWASHER
ENERGY EFFICIENT CLOTHES WASHER
ENERGY EFFICIENT CLOTHES DRYER
[COMMERCIAL] ENERGY EFFICIENT CLOTHES WASHER
ENERGY STAR AIR PURIFIER
VARIABLE SPEED POOL PUMP

Although the Mid-Atlantic TRM covers a majority of EEMs anticipated to drive Pepco program energy savings, this program will provide incentives for all energy saving technologies that may or may not be referenced in the Mid-Atlantic TRM. If a proposed measure exists outside of the Pepco technical reference library (TRL) that ICAST has created, based on the Mid-Atlantic TRM, ICAST will rely on an alternative means of quantifying energy savings. Those methodologies and resources include, but are not limited to:

1. TRMs from other States that can be applied to the Pepco program;
2. Energy modeling of a whole building or apartments to arrive at realistic savings estimates (using national and internationally approved modeling software);
3. Utility regression analysis, and
4. Referencing historical savings from other ICAST EE projects and DSM programs.

The Program TRL currently relies on energy savings equations from the Mid-Atlantic TRM and other approved TRMs (primarily the Illinois TRM). For this program, the Mid-Atlantic TRM, which references Washington DC directly for weather dependent variables, is the most suitable and is the primary source.

But for EEMs that are not included in the Mid-Atlantic TRM, ICAST will reference other TRMs because they use very similar if not identical equations to quantify energy savings for the same technology. Key differences between regional TRMs are weather dependent variables such as equivalent full load hours (EFLHs) and cooling and heating degree days (CDDs/HDDs). When using an alternate TRM, ICAST will modify the relevant inputs, such as CDDs/HDDs, to align them for the DC area.

In addition to choosing a TRM that fits weather parameters for the geographic location where the program operates, ICAST also collects site specific data, which overrides 'prescriptive' variables defined in the TRM to quantify energy savings, making this program custom to each project we implement. For example, the Mid-Atlantic TRM defines the savings for an energy star integrated screw-based LED lamp in equation 1.

Equation 1: Savings for screw-based LED lamp

$$\Delta kWh = ((WattsBase - WattsEE) /1000) * ISR * HOURS * WHFe$$

The TRM offers this note on HOURS which can be seen in Figure 1:

HOURS = *Average hours of use per year*
See utility-specific Parameter Valuetables below

Figure 1: TRM guidance for HOURS

Parameter Values Used to Calculate Energy and Demand Savings for Lighting Measures and Evaluation Recommended Values – BGE

Parameter Value	Evaluation-Recommended *Residential* Values	Evaluation-Recommended *Commercial* Values
WHFe	0.959	1.03
WHFd	1.241	1.25
Summer PJM WHF	1.227	1.27
Winter PJM WHF	0.815	0.82
Storage ISR (LED)	0.965	1.00
First Year ISR (LED)	0.86	1.00
First Year ISR (Fixture)	1.00	1.00
HOU	1.86	12.27
Utility CF	0.059	0.70
Summer PJM CF	0.058	0.70
Winter PJM CF	0.124	0.45
Percent of Installations	93%	7%

Source: Cadmus and Navigant analyses

The TRM defines that depending on the location of lamp installation either 1.86 or 12.27 daily hours be used to calculate annual operating hours. ICAST will rely on the TRM information in absence of site-specific information. However, if for example ICAST is able to verify that a common area lamp operates year-round, then ICAST would overwrite the suggested commercial value of 12.27 daily hours with 24 hours.

ICAST performs a property walk-through energy audit for every customer who wishes to participate in their program, using standard sampling protocols. A sample of existing conditions is documented for various proposed EEMs. This onsite data collection informs the existing capacities, efficiencies, and other parameters used in quantifying the savings for each measure on that property. Figure 2 is a screenshot of an air source heat pump calculations from the proposed ICAST TRL. The energy savings equation for this measure has been transcribed from the Mid-Atlantic TRM to an excel format that allows ICAST to quantify energy savings for a project that is customized for a participating MF property. Using the Mid-Atlantic TRM with site specific inputs ensures a high level of accuracy tailored not only to the specific program region but also to a specific customer. The TRL calculation template includes a transcription for all proposed EEMs listed in Table 1.

Figure 2: Example Air Source Heat Pump Energy Saving Calculation

AIR SOURCE HEAT PUMP		
SOURCE	Mid-Atlantic Technical Reference Manual v.10 pg. 80	COMMENTS
BASELINE	An air source heat pump split system that meets the mininum federal efficiency requirements (8.2 HSPF, 14 SEER, 11.8 EER)	
MEASURE EUL	18 Years	
4873.12	Annual kWh Savings (Baseline Remaining Life) = EFLHcool * ((BTUHCexist / SEERexist) - (BTUHCee / SEERee)) / 1000 + EFLHheat * ((BTUHHexist / HSPFexist) - (BTUHHee / HSPFee)) / 1000 + FanCirculation	
968.59	Annual kWh Savings (EEM Remaining Life) = EFLHcool * ((BTUHCexist / SEERbase) - (BTUHCee / SEERee)) / 1000 + EFLHheat * ((BTUHHexist / HSPFbase) - (BTUHHee / HSPFee)) / 1000	
N/A	Annual Therm Savings =	
0.399	Annual SSP kW Savings (Baseline Remaining Life) = ((BTUHCexist * (1 / EERexist)) - (BTUHCee * (1 / EERee))) / 1000 * CF	
0.130	Annual SSP kW Savings (EEM Remaining Life) = ((BTUHCexist * (1 / EERbase)) - (BTUHCee * (1 / EERee))) / 1000 * CF	
0.757	Annual Summer PJM kW Savings (Baseline Remaining Life) = ((BTUHCexist * (1 / EERexist)) - (BTUHCee * (1 / EERee))) / 1000 * CF	
0.246	Annual Summer PJM kW Savings (EEM Remaining Life) = ((BTUHCexist * (1 / EERbase)) - (BTUHCee * (1 / EERee))) / 1000 * CF	
2.911	Annual Winter PJM kW Savings (Baseline Remaining Life) = ((BTUHHexist * (1 / HSPFexist)) - (BTUHHee * (1 / HSPFee))) / 1000 * CF	
0.447	Annual Winter PJM kW Savings (EEM Remaining Life) = ((BTUHHexist * (1 / HSPFbase)) - (BTUHHee * (1 / HSPFee))) / 1000 * CF	
Washington, DC	Location = Delaware, Maryland, Washington DC	
Electric Resistance/CAC	Existing Equipment Type = Electric Resistance / CAC, ASHP, GSHP	
Electric Resistance	Existing Equipment Age = pre-2006, 2006-2014, 2015-Present, Electric Resistance	
SEER 18 ASHP	New Equipment Type = SEER 16 ASHP, SEER 18 ASHP, GSHP	
24000	BTUHCexist = cooling capacity of existing air conditioner or air source heat pump unit	
24000	BTUHCee = cooling capacity of new, efficient air source heat pump	
24000	BTUHHexist = heating capacity of existing air source heat pump = BTUHee if electric resistance	
24000	BTUHHee = heating capacity of new, efficient air source heat pump	
11	SEERexist = seasonal energy efficiency ratio of existing cooling system	
14	SEERbase = seasonal energy efficiency ratio of code baseline air source heat pump = 14	
18	SEERee = seasonal energy efficiency ratio of efficient air source heat pump	
3.412	HSPFexist = heating seasonal performance factor of existing heating system, if unknown see table to right	
8.2	HSPFbase = heating seasonal performance factor of code baseline air source heat pump = 8.2	
11	HSPFee = heating seasonal performance factor of new, efficient air source heat pump	
9.9	EERexist = energy efficiency ratio of existing cooling system	
11.8	EERbase = energy efficiency ratio of code baseline air source heat pump = 11.8	
13	EERee = energy efficiency ratio of efficient air source heat pump	
935	EFLHcool = full load hours for cooling equipment (see table to right)	
822	EFLHheat = full load hours for heating equipment (see table to right)	
1000	1000 = conversion factor between W and kW	
91.3	FanCirculation = energy savings associated with the installation of an efficient fan motor = 91.3	
0.69	SSP CF = summer system peak coincidence factor = 0.69	
1.31	Summer PJM CF = PJM summer peak coincidence factor (see table to right)	
0.6	Winter PJM CF = PJM winter peak coincidence factor (see table to right)	

Location	EFLHcool	EFLHheat
Wilmington, DE	719	935
Baltimore, MD	717	866
Washington, DC	935	822

New Equipment Type	Summer PJM CF	Winter PJM CF
SEER 16 ASHP	0.98	0.94
SEER 18 ASHP	1.31	0.6
GSHP	0.61	0.62

Existing Equipment Age	HSPFexist
Before 2006	6.8
2006 - 2014	7.7
2015 - Present	8.2
Electric Resistance	3.412

Color Key

Calculated savings
User-input value
TRM-defined constant
Table-linked value
Internally calculated value

A user-input value, as the name implies, will be adjusted per project based on the sample data points collected during the site walkthrough. A TRM-defined constant would be a value that stays consistent for the measure between all customers. A table-linked value would be dependent on a user input. For example, choosing "Washington DC" as a location would auto populate the EFLHcool/EFLHheat based on a table lookup for that location. Finally, an internally calculated value would be a proxy value that was calculated to determine final energy savings. These internally calculated values might rely on a combination of user-input values and table-linked values.

As stated before, the TRL for this program relies primarily on the Mid-Atlantic TRM, however since the Mid-Atlantic TRM does not contain all the EEMs ICAST would like to offer in the Pepco territory, specifically the Mid-Atlantic TRM excludes all building shell measures such as insulation, windows, etc. Therefore, ICAST included these shell measures from the Illinois TRM. ICAST has overwritten the weather dependent variables from the IL TRM with data specific to Washington DC from national weather databases, as well as leveraging existing weather dependent variables which were previously defined in measures already occurring in the Mid-Atlantic TRM. This approach was outlined as an alternative to sticking to measures defined explicitly in the Mid-Atlantic TRM.

Another deviation from the Mid-Atlantic TRM is derating HVAC and DHW equipment efficiencies where applicable. Derating is only relevant to instances of early equipment replacement. Derating will therefore only apply to equipment that is being replaced before end of useful life (EUL) and can only be used to inform energy savings for the early replacement time period. This time period is only for the years a piece of equipment is replaced before it reaches its EUL. After which, the lifetime savings will shift to referencing the energy savings resulting from applying code baselines for efficiency and not the derated equipment efficiency. ICAST will rely on the derating methodology outlined by the National Renewable Energy Laboratory (NREL) a branch of the Department of Energy (DOE). This derating methodology is outlined in the Building America Performance Analysis Procedures which can be found here: https://www.nrel.gov/docs/fy06osti/38238.pdf

ICAST will quantify energy savings using its TRL calculation template for all program participants. ICAST includes documentation such as photos of existing equipment directly in these calculations which are used to arrive at existing capacities and efficiencies. This calculation 'file' will be submitted to Pepco for approval of the incentives for each project, before the project is classified as 'reserved' and the approved incentives are reserved for the project. Upon request ICAST can also provide specifications of the EEMs which are used to define the efficient case capacities and efficiencies. This calculation template will be available to program evaluators which will streamline the verification of energy savings using a single document to clearly outline the variables and assumptions used to arrive at measure level energy savings.

Program Incentives

The program offers a custom incentive structure designed to meet program goals. The incentive program guidelines are:

- ✔ Incentives cannot exceed 80% of Total Project Cost, unless granted a waiver by the program

- ✔ Tiered Incentive structure with incentives for both Gas and Electric upgrades, as well as incentives for a gas to electric fuel switch:
  - Incentive for 'Replace on Fail' equipment at $0.08/kWh (to prevent this program from becoming a 'rebate processing' administrator for single equipment rebate requests)

Electric Upgrades

  - Up to $0.20/kWh incentive for lighting and water measures such as in-unit and exterior LEDs, showerheads, aerators, pipe wrap, etc.
  - Up to $0.80/kWh incentive for electric HVAC measures including Heat Pumps, and Hot water heaters and high efficiency windows (that are high cost, high EUL measures)
  - Up to $0.50/kWh for loose fill and dense pack insulation
  - Up to $0.30/kWh incentive for remaining energy saving measures.

Gas Upgrades

  - Up to $0.10/kWh for water measures such as pipewraps, showerheads, and aerators
  - Up to $0.40/kWh incentive for gas HVAC measures such as furnaces, boilers, t-stats, and for Gas water heaters, and Windows, using Gas Heating
  - Up to $0.25/kWh for loose fill and dense pack insulation

Fuel-Switch Upgrades

  - Up to $0.44/kWh incentive for electric savings
  - Up to $0.22/kWh incentive for gas savings

Program Requirements

ICAST will serve income qualified MFAH properties across Pepco's territory in the District. Income-qualification is based on a majority of the tenants earning less than 80% of area median income (AMI), as evidenced by the incomes of the tenants and certified by the property owner/manager, OR, the avg. rents at the MF property being less than 80% of avg. market rent, as evidenced by the rent roll provide by the property owner/manager. A qualified MF property will receive program incentives for energy efficiency (EE) improvements completed in-unit i.e. on residential meters, as well as for outside the unit and common area i.e. on commercial meters. Master metered MF properties also qualify under this program.

MF properties are defined as those with three or more units/apartments that are all part of the same property complex (physical space) and have the same ownership and/or management. For example, a fourplex owned by the same owner is eligible for incentives under the MF program when the retrofit involves all of those units. But a duplex or a tenant living in an apartment complex with 50 apartments, wish to undertake EE upgrades, they do not qualify for program incentives, and will be guided to Pepco's single-family DSM program ICAST. This strategy ensures that all varieties of MF properties, owned or managed by a single entity, get served through one comprehensive MF program.

The custom incentive program offers incentives for any and all EEMs that can provide energy savings to the program. ICAST will leverage program incentives to install capital intensive measures such as HVAC, domestic hot water (DHW), building shell (insulation, windows, etc.), and appliances that tend to have a higher persistence of savings and aid the program's lifetime savings achievement goals and not focus on "low hanging fruit" measures such as lighting and low-flow water measures.

ICAST will utilize its comprehensive one-stop-shop (OSS) approach to offer a simple to enroll and hassle-free service for the MFAH customers to engage and complete deep energy retrofits on their properties. To deliver its OSS services, ICAST will employ a whole building deep energy retrofit approach, based on early retirement of inefficient systems, covering the entire MFAH property (in-unit residential and common area/exterior commercial meters).

The EEMs eligible for Pepco incentives are broadly classified into two categories:

1. EEMs installed in-unit, i.e. inside the apartment units. For these EEMs, the energy savings are calculated per unit.
2. EEMs installed on the MF property and impact the whole building i.e. common areas such as corridors, exterior of buildings, community room, laundry, roof insulation, etc. For these EEMs, the energy savings are calculated per building or per property.

Program Partnerships

Where possible, ICAST will partner with other organizations to leverage incentives, to provide the best possible rebates and incentives for the Pepco customer.

ICAST will partner with DOEE to target BEPS eligible properties, specifically those that are not in compliance and offer technical assistance and the Pepco program incentives to help them get to BEPS compliance.

Upon customer approval, ICAST will partner with DOEE to share info. on proposed properties and their desired scopes of work, so that DOEE may align these projects with other available resources through green building, affordable housing, and building energy performance programs and share those resources with ICAST, within 5 business days, so that ICAST can leverage them for the benefit of the customer.

Separately, ICAST and the DCSEU will coordinate to identify potential opportunities to work together on a case-by-case basis and ensure no double-counting of energy savings. ICAST and DCSEU have agreed on a partnership that will follow the guidelines below:

1. ICAST will share leads on projects where the MFAH customer is not keen on the Pepco Program. In these cases, ICAST will pass the MFAH customer over to DCSEU, in case they can do better by the customer and get them to agree to do efficiency work. And DCSEU will do the same by sharing the leads with ICAST for projects their program is unable to convince the MFAH customer to sign up.
2. DCSEU will pass along project leads from DCSEU Trades who are doing mainly DI work, to ICAST, to ascertain if ICAST can 'upsell' more EEMs to that DI customer. If ICAST is successful, DCSEU gets to take credit for all of the energy savings for the DI work, and both programs can share the energy

savings for the 'upsell' EEMs that ICAST managed to install, with both programs providing the same amount of incentive to equally share the savings.

3. MF properties that do not qualify as LI for the Pepco program, would be transferred over by ICAST and served by the DCSEU incentive program.

Program Roles and Responsibilities

ICAST

ICAST will provide turn-key services for the Program including, but not limited to, regulatory compliance, code and standards management, program design, technical design and analysis, marketing, working with market participants, program and/or process improvement, customer service, customer application and incentive payment processing, data management, quality control and reporting activities, and if necessary, transition of the program to another implementer.

Some of ICAST's key roles and responsibilities are listed below. Additional roles and responsibilities can be found in the contract Statement of Work between ICAST and Pepco.

Implementation

Collaboration. ICAST will work constructively with multifamily organizations, Pepco program staff, and other program administrators and market actors. ICAST will also work constructively with other outsourced delivery implementers as directed and coordinated by Pepco to achieve consistency and cost efficiencies. ICAST will become familiar with and refer projects, as appropriate, to programs/delivery channels in a program neutral manner and otherwise support overall Pepco goals.

Marketing. All customer facing marketing materials, i.e. address the MFAH customer, will require approval from Pepco's marketing team before being utilized by ICAST. All marketing materials that are not customer facing e.g. address trade allies, will also require approval from the Pepco Program Manager before being utilized by ICAST. ICAST will be responsible for marketing support including but not limited to content for website, letters, letterhead, collateral, displays, and promotional items and advertising. ICAST must obtain prior approval from Pepco for all marketing materials and mass program communications (e.g. newsletters, mailings/emails) related to this MF program. All marketing materials used by ICAST to market this MF program, must be submitted to Pepco for review and approval of layout and content. ICAST shall provide support to Pepco's marketing efforts. Examples of support services include the review and distribution of marketing pieces designed and produced by Pepco. ICAST will also coordinate with Pepco staff to maintain and continuously improve marketing guidelines. All program materials must adhere to Pepco's print graphic standards and integrate visually with other program and Pepco communication material. Program level marketing materials include, but not limited to, brochures, overviews and general applications will be property of Pepco.

Contractor recruitment and training. ICAST will be responsible for identifying, recruiting, supporting and assisting contractors with installation of energy efficient equipment at qualifying multifamily properties. Contractors are firms or individuals engaged in selling, installing, distributing or specifying energy efficient equipment in Pepco's service territory. Contractors may include distributors, manufacturer

representatives, engineers, architects, and designers. ICAST is expected to work constructively with contractors, utility program staff, and other program administrators and market actors. Contractor training activities consist of working with contractors, individually and in group settings to maximize their participation.

Inquiry Response. ICAST will provide timely responses to all customers and other inquiries and requests for further information/support. Should the need arise, ICAST will directly interact with potential and current program participants to provide prompt resolution of customer concerns, helping maintain customer satisfaction with Pepco's available incentive offerings.

Program Management

ICAST will be responsible for program management, budget management, activity tracking, reporting, and regulatory compliance. Program management will consist of but not be limited to the following:

- *Incentive invoices.* ICAST will deliver incentives to customer within seven days of Pepco receiving approval and will, in turn, invoice Pepco for reimbursement within five days of paying the customers.
- *Administrative invoices.* ICAST will deliver administrative invoices once a month, by the seventh day of the following month, to comply with program requirements.
- *Monthly, Quarterly, and Bi-Annual Reports.* (See Tracking and Reporting section below).
- *Marketing plan.* ICAST will develop an initial marketing plan in coordination with Pepco. The marketing plan will provide details on all marketing activities such as planned media buys, outreach events, development of collateral materials, mailings, website updates, budgets, etc. The marketing plan will be updated as needed.
- *Budget Management.* ICAST will manage the Program incentive and delivery budget per the amounts defined in the contract and the updated Bi-Annual Strategic Plans.
- *Quality Control & Quality Assurance.* ICAST shall ensure regulatory and contract compliance and perform quality control and assurance on MFAH projects to ensure Pepco incentives are paid for the installation of qualified energy efficiency products.
- *Evaluation.* ICAST will cooperate with all evaluations and quality assurance reviews and audits performed by Pepco or by agents of Pepco.
- *Operations Manual.* ICAST will document Program processes, requirements, and policies in an Operations Manual which will be updated as needed when Program changes are made or new materials are developed. The content of the Operations Manual will be guided by the Pepco and Program policies, District regulations, procedures and marketing and communications guidelines.
- *Bi-Annual Strategic Plan.* ICAST and Pepco will conduct a bi-annual review of activities, major initiatives and results. At a minimum, the bi-annual strategic plan will include the annual budget and annual energy savings targets with intermediate milestones and deliverables as appropriate. The plan must also contain any requirements of Pepco necessary to facilitate the delivery of the Program in accordance with the Contract, statement of work and regulatory requirements for the Program. The plan will seek to identify appropriate areas of collaboration (i.e. scheduled events, marketing initiatives, and trade ally training) among program administrators, including Pepco and

any other contractors and market actors. The due date of this bi-annual review will be the first week of January and July, or another date as determined by Pepco. Upon approval of Bi-Annual Strategic Plan by Pepco, the activities, major initiatives and results as outlined in the approved Strategic Plan will supersede any similar requirements in the contract.

Pepco

Pepco's key roles and responsibilities are listed below. See contract Statement of Work (SoW) between ICAST and Pepco for additional information.

Pepco will be an active partner with ICAST. Pepco will be consulted for comment and input throughout the duration of this Program. Pepco responsibilities include but are not limited to the following:

- *Obtain Regulatory Approval for this program.* Pepco will be responsible for obtaining the necessary regulatory approval before ICAST can commence this program. ICAST will help, to the extent possible, with this approval process.
- *Verification of Customer Eligibility.* Pepco will be responsible for providing customer data via a secure file transfer or other means for eligible customers and respond to any requests by ICAST to confirm customer eligibility. Data requirements to be mutually defined by Pepco and ICAST, and may include but not be limited to: meter status (length of service, rate, etc.), billing date/cycle, supplied energy, customer account number, premise/meter ID, site address.
- *Upload Templates.* Pepco will provide template formats necessary to upload program data and measure updates into Pepco tracking system for the program, providing at least two weeks for ICAST to adjust upload procedures.
- *Bulk Upload Support*. Pepco will provide timely feedback and support for troubleshooting incentive project batch uploads that do not successfully load into Pepco tracking system. Pepco and ICAST will work collaboratively to resolve outlier challenges to ensure incentives are processed in a timely fashion.
- *Batch Reconciliation*. Pepco will work with ICAST to resolve any errors which occurred during the upload process, prohibiting project detail information from being loaded into the Pepco tracking system. Upon successful upload and approval of invoice, Pepco tracking system shall serve as the database of record for reported incentives, energy savings, and other customer data.
- *Customer Data for Marketing.* Pepco will be responsible for providing customer data including at least annual updates via a secure file transfer from its billing system for eligible customers including any marketing opt out status.
- *Corporate Communications Interface*. Draft marketing and outreach materials will be developed by ICAST with approval from Pepco.
- *Program Management.* Coordinate ICAST's program management with Pepco's program management, IT and marketing personnel.
- *Invoicing.* Payment of incentive and administration invoices within defined timeframe. Incentive payments are expected within 10 days of invoicing while administrative invoices are expected to be paid within 30 days of ICAST invoice.

- *Program Coordination.* To help avoid "double-dipping," Pepco and ICAST will work together to establish reasonable means to ensure that the same project is not being submitted and processed by more than one program for incentives for the same EEMs.
- *Program Management Feedback*. Pepco will provide regular feedback on ICAST's performance, suggestions for improvements and other appropriate input.
- *Commission and Advisory Coordination.* Pepco will assist with program coordination with commissions and advisory groups.
- *Coordination with other implementer(s).* Pepco will direct and coordinate interactions between ICAST and any other implementer(s) it deems necessary to facilitate program consistency, reduce market confusion, and achieve program goals. Pepco will clarify any scope "overlap" between ICAST and any other implementer(s).
- *Review and Approval Timeline.* Pepco will provide timely reviews of deliverables or designate appropriate personnel and a response timeline for review that will not exceed five (5) business days.
- *Bi-Annual Budget/Savings Targets.* Pepco will collaborate with ICAST to finalize bi-annual budgets and savings targets within a mutually agreed upon date.
- *Staffing List and Organization.* Pepco will provide an updated list of key staff, contact information, and roles/responsibilities at least annually, or when a change occurs.

ICAST: Tracking and Reporting

ICAST will present Program progress and performance reports to Pepco on a real-time basis through Microsoft PowerBI dashboards. Monthly reports will also be presented to share with EEEC Task Force and other stakeholders. ICAST will also prepare quarterly reports for Pepco needed to submit to the Commission on the progress of the program. These status reports will provide updates on energy savings achieved by project completed with additional details as needed.

ICAST will also conduct bi-weekly or monthly meetings after the Program's launch with additional meetings requested by either party on an as-needed basis. Strategy meetings will be conducted every six months to formally discuss program strategy and any changes needed to meet and exceed program goals. All meetings will be conducted via Microsoft Teams, unless planned otherwise.

Monthly, quarterly, and bi-annual reports are submitted by ICAST to Pepco to describe the progress made to date. These reports provide status on the progress made towards the program goals. Samples of these reports are provided: Real-time dashboard reports as Appendix A and monthly status update report as Appendix B

ICAST will also prepare quarterly reports for Pepco needed to submit to the Commission on the progress of the program. These status reports will provide updates on energy savings achieved by project completed with additional details as needed. The format will be similar to that of the Washington Gas reports that Pepco has provided ICAST. An example of the formatting of the quarterly report is attached as Appendix C.

Bi-Annual Report. The bi-annual report will summarize all program activities, results, what went well, what did not go well, and lessons learned. The report will be delivered by the 15th of the next month past the six-month end. The report will include, but will not be limited to:

- Documentation of meeting program requirements such as following program guidelines
- Documentation of programmatic submittals to Pepco such as regulatory or tariff changes, Contract deliverables and similar items.
- Summary of key results and achievements.
- Lessons learned, including what went well and what did not go well.
- Process improvements made throughout the year and any recommended improvements.
- A section describing customer service activities including challenges/issues, and suggestions for improving customer satisfaction and experience with the program.