ENERGIZE DELAWARE®

Home Performance with ENERGY STAR®
Participating Contractor

Operations Manual

PREPARED BY:
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Contractor Agreement	
By signing this Agreement, Participating Contractor's representative is certifying that Participating Contractor has read, understood and agreed to all the definitions, terms and conditions that are part of this Contractor Operations Manual.	
Contractor Representative Printed Name:	
Contractor Signature:	Date:

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Participating Contractor Operations Manual Purpose & Maintenance

The purpose of this document is to provide supplemental guidance and a consistent reference for contractors who are approved to participate (referred to as "Participating Contractors") in Energize Delaware's Home Performance with ENERGY STAR® Program (the "HPwES Program" also "Program").

The Program has multiple participation pathways, and each Participating Contractor will self-assign the role that best captures the level of services they intend to perform within the Program. The descriptions below highlight the two (2) Contractor Participation roles within the Program:

- **Installation-Performing Contractor (IPC):** Participating Contractor specializing in the installation of HVAC, weatherization, plumbing, electrical services, or other specific services. All IPCs must maintain program-specific license requirements in accordance with the services they offer.
- **Assessment-Performing Contractor (APC):** Participating Contractor specializing in Comprehensive Home Energy Assessments and diagnostic testing, including Test-Out Inspections. All APCs must maintain program-specific BPI credentials and will be held responsible for processing project paperwork for rebates on behalf of any HPwES customers they serve (when contracted IPC is not already working with an APC).

All the above will be referred to as **Participating Contractors (PC)** as a group. "Participating Contractor" or "Contractor" will encompass all program participants (APC or IPC).

Program Contacts

Main Office Address
4420 Limestone Road
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Program Phone for Customers: 877- 524-1339
Main Office Email: **DelawareHP@ICF.com**
Quality Control Team Email: **DelawareHP@icf.com**

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HP Program Support	Marvin Soto	302.596.9411	**marvin.soto@icf.com**
Marketing and Outreach	Kobe Baker	302.596.9418	**kobe.baker@icf.com**

Program Modification

The Program reserves the right to modify the program design and/or the measure mix as necessary and will update the Participating Contractor Operations Manual annually. Whenever changes are made to the Program, a programmatic update will be sent to all participating contractors. Additionally, the Program will make every effort to ensure ample lead time is provided to Participating Contractors to enact any necessary changes in their operations. Please review the “Program Updates” section for any recent program changes.

Recent Program Changes

General Disclaimer for all measures: To qualify for any rebates there must be an efficiency gain. Equipment with the same efficiency is not eligible for rebate.

Residence Must be at Least Five (5) Years Old

Homeowners (and renters with the property owner's permission) must meet the following requirements to be eligible to participate in the Energize Delaware Home Performance with ENERGY STAR® Program.

Residential properties located in Delaware are eligible. Multi-family properties with more than four (4) units under one roof (i.e., apartments and condominium units) must be three (3) stories or less AND at least 10 years old to participate.

Homes that are less than five (5) years old are eligible to participate but must cover the cost of the audit unless signed contract for rebate eligible work. (Solar not part of Energize Delaware)

HVAC & Hot Water Heater Measures

Furnace/Central AC Systems | Incentive Requirements

- **Condensing Tankless Water Heater Replacement**
  - The replacement of an existing condensing tankless water heater with a new tankless water heater is not eligible for program incentives.
    - "Condensing" units will be identified by way of a PVC intake and exhaust pipe.
    - Upgrading a non-condensing tankless water heater to a rebate-eligible model is eligible for program incentives.

Program Overview

Home Performance with ENERGY STAR® (HPwES) is a national effort by the U.S. Department of Energy (DOE) to offer a comprehensive, whole-house approach to improving the energy efficiency and comfort of homes, while helping protect the environment.

Energize Delaware delivers the Delaware HPwES program in partnership with DOE, and like the national effort, takes a whole-house approach to improving a home's energy efficiency, comfort, durability, and safety. The Program delivers energy efficiency by offering the following:

- Comprehensive, diagnostic energy assessments.
- Direct installation of energy efficient measures.
- Completion of recommended energy efficiency improvements to residential Participants through Participating Contractors.

Energize Delaware provides the HPwES Program with financial incentives and financing to eligible Delaware Participants for making program-eligible recommended improvements.

The Program core provides eligible Delaware participants access to qualified vendors and Participating Contractors in the following two (2) unique tracks:

- HPwES
- Assisted HPwES (AHPwES) — follows HPwES track with increased incentives

Home Performance with ENERGY STAR Program (HPwES)

HPwES provides a platform for Delawareans to improve their household energy efficiency, comfort, durability, and safety through the following:

- Comprehensive, diagnostic energy assessments
- A network of Participating Contractors
- A building shell and/or HVAC upgrades

The HPwES track consists of a comprehensive home energy assessment ("Assessment") and energy efficiency upgrades, which are offered at significantly reduced costs through rebates and financing.

HPwES Assessments and Projects may only be delivered by Participating Contractors (PCs). PCs are defined as contractors that have submitted a trade ally application to the Program, provided all required enrollment documentation, and have been approved to participate as a PC by the ICF team. PCs are required to renew their status with the Program annually (see "Contractor Annual Renewal"). To qualify for incentives, customers must use a PC to initiate their application and to submit work completion documentation.

Assisted Home Performance with ENERGY STAR Program (AHPwES)

The AHPwES program track is similar to the HPwES track but offers increased financial incentives for income-qualified property owners (and renters via their landlord). Eligible residential or mixed residential-commercial properties residing in one of Delaware's Downtown Development Districts (DDD) will also qualify for the AHPwES program track — DDD participants are not required to meet the income eligibility requirements. Below are the maximum annual income levels for AHPwES eligibility. Customers must complete an application to participate. Please note the income levels may be updated periodically. The most updated income levels can be found below or on page 2 of the AHPwES Application.

Household Size	Maximum Annual Household Income
1	$46,500
2	$53,100
3	$61,158
4	$70,598
5	$80,038
6	$89,478
7	$98,918
8	$108,358

For households with more than eight individuals and for the most current income qualification levels, please visit **https://energizedelaware.org/residential/get-started-home-performance-with-energy-star/** or call for more information.

All completed applications are reviewed and approved by the ICF team upon receipt.

AHPwES Participants must receive approval from the ICF team.

Program Objectives

- Help Delaware residents understand how to use energy more efficiently.
- Help Delaware residents make energy efficient upgrades in their home with access to no-cost upgrades, rebates, and loan financing.
- Achieve cost-effective energy savings by working with Participating Contractors.
- Support Delaware businesses through job creation opportunities and providing training for Participating Contractors to enhance capabilities of providing home energy efficiency services in Delaware.
- Develop educational and supporting services for customers and Participating Contractors to promote the implementation of energy efficiency improvements.
- Support and encourage Delaware residents and businesses to take actions that improve the environment.

Program Roles and Responsibilities

Program Sponsor

Energize Delaware - Delaware Sustainable Energy Utility (DESEU)

- Provide the customer incentives for the program.
- List Participating Contractors on the Energize Delaware website.
- Oversee ICF, the program implementer.

Program Implementer

ICF

- Plan and design the Home Performance with ENERGY STAR® Programs.
- Market the program to customers and participating contractors.
- Approve customer eligibility and enrollment.
- Recruit, train, and mentor participating contractors.
- Process qualifying project applications and issue routine and timely payments.
- Maintain a database of all necessary program information.
- Conduct program quality control and quality assurance activities.

Program Participant

Delaware Occupants, Residents, and Homeowners

- Enroll online to have an assessment performed and MUST include utility electric account number for the premise location.
- Choose a participating contractor (or ask the Program to choose a participating contractor) from the program's approved list to perform an assessment.
- Provide the participating contractor with the necessary home information (including energy and water usage history) to properly assess savings potential.
- Choose a participating contractor from the program's approved list to install eligible energy efficiency measures in the home.
- Allow the Program to access the home to verify installed measures where applicable.

Participating Contractor

- Must enroll to participate and maintain required licenses, insurances, and certificates as dictated in this Program Manual (see "Contractor Eligibility and Enrollment").
- Properly provide eligible services to qualified, interested Participants.
- Ensure work completed (whether through an assessment or qualifying improvements) adheres to Program rules and guidelines.
- Must participate in program sponsored trainings and workshops.
- Must utilize program software.

Program Eligibility

Interested Participant Program Eligibility

The Program is intended to offer occupants, residents, or homeowners of Delaware (referred to as "Participants") an opportunity to participate through one of the two Program tracks. Participants are defined as those who are located within the state of Delaware and the location has a residential electric and/or gas account.

HPwES | Program Participation Eligibility

- 1–4-unit residential property located in Delaware
    - Residential properties located in Delaware are eligible. Multi-family properties with more than four (4) units under one roof (i.e., apartments and condominium units) must be three (3) stories or less AND at least 10 years old to participate.
        - Homes that are less than five (5) years old are eligible to participate but must cover the cost of the audit unless signed contract for rebate eligible project.
    - Townhouses/rowhomes and mobile homes are eligible for participation.
        - "Townhouse/rowhome" is defined as a single dwelling unit in a structure that extends from foundation to attic and has its own utility meters and HVAC/DHW system. There is no limit on how many rowhomes can be connected to one another.
- Multi-family residential property (>4 units) located in Delaware
    - **Building must be 10 years old or more**
    - **Building must fall under Residential Building Codes (IECC 2018)**
        - **Three (3) stories (above grade) or less**
    - Building must be approved by the ICF team. Approval review will take place at the time the interested Participant's application is received. Additional information may be requested of the Participating Contractor to verify eligibility. The Participating Contractor and interested Participant will be notified of the Program's determination.
        - Participation from three (3) units or more within the same building/complex may require a site visit from the ICF team.
    - Participating Contractor must coordinate with Participant to ensure utility closets containing HVAC and/or DHW equipment are unlocked prior to assessment.
- Additions to the structure and equipment to heat/cool a new space are not eligible for program rebates. Any additional building footprint that would add square footage to the conditioned space that is not already heated/cooled would not qualify for the HPwES program.
- The interested Participant owns the home or rents and has a signed landlord consent form for the installation of energy improvement upgrades.
- Participants with multiple properties and second homes in Delaware are eligible to participate — each qualifying property will be eligible for program incentives.

Assisted HPwES | Program Participation Eligibility

- Residence meets income eligibility at or below levels outlined above in the Program Description OR has received approval to participate in AHPwES as an eligible Downtown Development District (DDD) property.
    - Interested Participants must complete and sign an income verification form verifying their eligibility under the program guidelines for income qualification.
        - Prospective participants, or applicants, will be asked to provide a record of all household occupants, their monthly or annual income, and to sign an Authorization, Understanding and Agreement statement.
    - Participants must have their eligibility confirmed by the Program prior to having work performed.
- Residence falls under one of the eligible property types listed within sections "HPwES | Program Participation Eligibility" OR "Downtown Development Districts | Program Participation Eligibility."
- Additions to the structure and equipment to heat/cool a new space are not eligible for program rebates. Any additional building footprint that would add square footage to the conditioned space that is not already heated/cooled would not qualify for the HPwES program.

- The interested Participant owns the home or rents and has a signed landlord consent form for the installation of energy improvement upgrades.
- Participants with multiple properties and second homes in Delaware are eligible to participate — each qualifying property will be eligible for program incentives.

Downtown Development Districts | Program Participation Eligibility

- Property is a residential or mixed-use property located in one of Delaware's Downtown Development Districts.
    - Includes both residential and mixed residential-commercial spaces.
- Residential properties less than five (5) years old are not eligible for a program-subsidized home energy assessment.
    - A waiver will be made available to interested Participants with a signed contract for a rebate-eligible project through a Participating Contractor. In these cases, the program will allow the interested Participant to bypass the 5-year eligibility requirement and move forward with a subsidized home energy assessment to qualify the project for Energize Delaware rebates. **Please note, solar projects will not qualify interested Participants for this waiver.**
- Property must receive approval from ICF team.
- Additions to the structure and equipment to heat/cool a new space are not eligible for program rebates. Any additional building footprint that would add square footage to the conditioned space that is not already heated/cooled would not qualify for the HPwES program.
- The interested Participant owns the home or rents and has a signed landlord consent form for the installation of energy improvement upgrades.
- Participants with multiple properties and second homes in Delaware are eligible to participate — each qualifying property will be eligible for program incentives.

Limits on Eligibility and Participation

- Rebates in the Energize Delaware program must be reserved within the Beacon platform by either APCs or IPCs once a comprehensive energy assessment has been performed (Rebate reservation). Trade allies must have an active account within the Beacon platform to find and apply for a rebate on behalf of a customer.
    - Rebate reservations and amounts are good for 90 days from the time the reservation is approved, unless otherwise noted by the Program. After 90 days (unless otherwise noted), the contractor must submit a new rebate reservation. The project will be subject to any changes in the program and rebate amount changes made since the previous reservation. For more information, see "Step 5: Work Scope Proposal and Rebate Reservation."
- The Program understands Participants may not be in an immediate position to move forward with installation recommendations. As such, assessment recommendations can be completed within five (5) years of the assessment date and still be eligible for incentives.
    - After five years, Participants will need to have a new assessment and will be responsible for the full assessment fee at a market rate determined between the Assessment Company and Participant. These Participants are not eligible for discounts on the Assessment, nor Program provided DIMs.

Participant Acquisition and Enrollment

Participant Acquisition

A key component of the Program is working through a Participating Contractor. This may be accomplished by typical and accepted marketing efforts such as print, social media, word of mouth, etc. Interested Participants who contact the program may be provided with Participating Contractor names or assigned to a Participating Contractor. Participants are assigned to a Participating Contractor at the time the ICF team processes the interested Participant's online Request an Assessment application (web submission).

The Participating Contractor will need to gather the appropriate information to confirm the house meets the participation requirements of the program (see "Program Eligibility" above). In the case a home does not qualify, both the interested Participant and Participating Contractor will be notified.

Participant Information Verification

If an interested Participant's web submission for the program does not provide adequate information to the Program, the ICF team will reach out to the Participating Contractor noted in the web submission for clarification. If no contractor is noted in the web submission, the Program will reach out directly to the interested Participant. The Program reserves the right to request a copy of the electric utility bill to verify account number and address information.

Program Fee Schedule

The Program's Comprehensive Home Performance Assessment Fee Schedule is as follows. Please note, the Program reserves the right to change the Fee Schedule without notice.

- **Home Performance with ENERGY STAR®:** Customer is responsible for 25% of the assessment cost up to $50. The Program will reimburse 75% of assessment cost up to $400.*
    - **Multi-family Residences:** Customer is responsible for 25% of the assessment cost up to $50. The Program will reimburse 75% of assessment cost up to $300.*
- **Assisted Home Performance with ENERGY STAR:** Customer is responsible for 25% of the assessment cost up to $25. The Program will reimburse 75% of assessment cost up to $425.*
    - **Multi-family Residences:** Customer is responsible for 25% of the assessment cost up to $25. The Program will reimburse 75% of assessment cost up to $325.*
- The Program will compensate Test Out Inspectors with a payment of $400 for each completed project, covering both the Test Out Inspection and rebate processing. This fee will be disbursed when the project's rebate is issued for payment.
  Please note: Test outs conducted within 30 days of each other at the same installation site will not be eligible for payment unless an exception is granted by Energize Delaware.

*The Participating Contractor has the option to charge the Participant more than the standard customer co-pay for homes greater than 3,000 square feet and/or homes with multiple CAZ areas as long as the customer is advised in advance and approves the added cost.

Program Eligible Measures and Rebate Amounts

Prescriptive Rebates

The Program provides prescriptive rebates for reserved, eligible projects that have completed a comprehensive Home Performance Assessment. Please note, the Program reserves the right to change the list of eligible measures and/or rebate amounts without notice.

Please check the website for the most current list of rebate incentive levels here:
www.energizedelaware.org/residential/home-performance-with-energy-star/homeowners

Direct Install Measures (DIMs)

The Program provides reimbursement to Participating Contractors for the installation of Program-approved Direct Install Measures (DIMs) that are installed at the time of the assessment. DIMs are offered to Participants at no additional cost and provide an initial energy savings opportunity as an incentive to continue with deeper savings recommended in the assessment report. The Participant may select any combination of Program-approved DIMs at no cost up to $250. The Participating Contractor is required to install DIMs in the home to ensure achievement of estimated energy savings (up to the established total incentive cap of $250). Contractors may exceed the total incentive cap but will only be reimbursed by the Program for amounts up to the maximum incentive value.

Please note, the Program reserves the right to change the list of eligible DIMs, the total DIM incentive cap, and/or individual DIM amounts without notice.

Participating Contractors can find a current list of DIM incentive rates here:
www.energizedelaware.org/residential/home-performance-with-energy-star/contractors

Contractors are expected to install DIMs to the standards listed below during an assessment. Any measure that is not installed will not qualify for reimbursement to a Participating Contractor and may preclude the reimbursement for any DIMs to the Participating Contractor for that project. In such instances, a failure notification will be sent to the Participating Contractor as per the QC Resolution Process.

- LEDs: LED lamps must replace incandescent or halogen lamps. LED lamps may not replace CFL lamps.
- Pipe Wrap: Must be installed on the outlet side (hot only) and contractors are not to install within 6” of an active flue.
- Aerators, Showerheads and Thermostatic Restrictor Shower Valves: Installed to industry best practices.

If no DIMs are installed during an assessment, it must be documented on the customer’s energy assessment report.

Measure Standards: Rebate Measures

Overview

Contractors are expected to install all materials and equipment that are being submitted for a Program-qualifying rebate in accordance with the Program standards and manufacturer specifications.

Below is an overview of the standards all projects must follow in Energize Delaware's HPwES Program.

- **All Health and Safety issues (e.g. CAZ failures, friable asbestos, mold, etc.) take priority and must be resolved prior to the completion of all HPwES projects.**

- ANSI/BPI-1200 Technical Standards unless specifically stated otherwise
  - Compliance with ASHRAE 62-1989 Building Airflow Standard (BAS) is the minimum requirement for ALL projects under the Energize Delaware HPwES Program.

Minimum R-19 Attic Insulation Requirement

- A minimum insulation level of R-19 is required in an attic before a homeowner becomes eligible to receive rebates for HVAC equipment through the program. This minimum R-19 value refers to the nominal R-value of the existing attic insulation or six inches of depth.
  - **In cases where attic spaces are enclosed or when attic insulation work is not a cost-effective measure due to limited accessibility, the Program will accept an air sealing package in place of attic insulation work to meet this requirement.**
  - Air sealing must accompany insulation. That is, anytime insulation is offered, air sealing must be accompanied and completed (or already be present and completed) – even if the air sealing will not qualify for a program rebate.

Ventilation Requirements

- Compliance with ASHRAE 62-1989 Building Airflow Standard (BAS) is the minimum requirement for ALL projects under the Energize Delaware HPwES Program.
- Clothes Dryers — must exhaust to outside.
  - Unvented – needs to be vented with hard pipe.
  - If vinyl flex is existing (and is vented to the outside), contractor should recommend replacement (but is not required to replace).
  - Any newly installed exhaust ducts in unconditioned spaces must be insulated in accordance with IECC 2018.
- Bath Fans — must exhaust to the outside.
  - Unvented – needs to be vented with hard pipe or flex insulated hose: R4.
  - If vinyl flex is existing (and is vented to the outside), contractor should recommend replacement (but is not required to replace).
- Any newly installed exhaust ducts in unconditioned spaces must be insulated in accordance with IECC 2018.
- Gas Kitchen (Range/Oven) Fans
  - If a kitchen fan is vented to unconditioned space (i.e. attic or basement), it needs to be vented to the outside.
  - If kitchen contains a recirculating fan, then contractor should recommend replacement (but not required to replace).
  - If new kitchen fan is installed, it must comply with ANSI/BPI-1200.

Gas Leak Detectors

APCs must have a gas leak detector that can provide a digital display of percentage of Lower Explosive Limit (LEL) and/or provide an alarm when detecting combustible gas concentrations exceeding 10% (LEL).

Carbon Monoxide Detectors

The Program will more narrowly follow NFPA Standards and expects when there is an attached garage and/or combustion appliance, that one carbon monoxide detector is centrally located on each floor and centrally located outside of each separate sleeping area, in the immediate vicinity of the bedrooms.

For all units, APCs should ensure units are operable.

For existing units already in the house, contractors should review the age of the unit and make the appropriate recommendation. The Program encourages contractors to check the age of the unit and advise the Participant to replace units that are nearing their rated shelf life.

Unvented Heaters
The Program will follow ANSI/BPI-1200. Contractors should recommend the removal of unvented heaters (but are not expected to disconnect any units). To support contractors in the conversation of recommending removal, the Program will supply a removal recommendation notification for contractors to provide Participants.

Weatherization Measures

Air Sealing /Duct Sealing

- Air sealing projects in the Program will be directed at the thermal and pressure boundaries of the building. All attached areas of the building must be considered when addressing the entirety of the thermal and pressure boundaries. Zonal readings may be requested by the Program for verification purposes.
    - Air sealing must accompany insulation. That is, anytime insulation is offered, air sealing must be accompanied and completed (or already be present and completed) — even if the air sealing will not qualify for a program rebate.

Attic Insulation

- Attic must be air sealed prior to or as part of insulating the attic.
- Attic must be insulated to one of the following levels for the measure to be rebate-eligible:
    - Open attic insulated to at least R-49 (as space allows)
    - Enclosed cavities dense-packed with insulation (filled to capacity)
    - Insulated sheathing of vertical knee walls (minimum of R-5 **added**)
    - Spray foam is an eligible measure and must be installed to manufacturer's specs (when applicable, it should include code-approved fire protection)
    - ****Photo evidence must be recorded if the attic space is intended to be permanently (or semi-permanently) sealed off.****

Wall Insulation

- External walls must be insulated to one of the following levels:
    - Enclosed cavities dense-packed with insulation (filled to capacity)
    - Open cavities insulated with low-density spray foam (filled to capacity)
    - Wall insulation: 50% of the total square feet must be included
    - Voids should be less than 5% of the total treated surface area

Floor/Crawlspace Insulation

- Basement/crawlspace must be insulated to one of the following levels:
    - Basement or crawlspace ceiling with R-30 insulation or minimum of 2" of foam
    - Foundation walls must be insulated to R-13 or treated with 2" foam board or spray foam for continuous applications.
        - The entirety of the foundation wall must be insulated, including foundation walls adjacent to garage and below frost line.
    - Ceiling and foundation walls are mutually exclusive. Project must have one pressure and thermal boundary that is aligned.
    - Floor insulation measure can be used for treating garage ceilings where the garage is fully unconditioned with conditioned space above.

HVAC & Hot Water Heater Measures

- All projects must be installed to the Program standards and manufacturer specifications.
- HVAC equipment must be installed to provide conditioning (heating and/or cooling) in a space that is directly conditioned (at the time of the energy assessment) and within the thermal envelope to qualify the equipment for program incentives.

- The replacement of portable space conditioning appliances (including window A/C units) does not qualify for program incentives.
- The number of smart thermostat rebates available on a project are based on the number of systems, not the number of zones. Multiple zone systems will only qualify for one smart thermostat rebate.
- The "Air Sealing/Heat Pump — Bundling Bonus" incentive is applicable when bundling air sealing with heat pump technology (space conditioning or DHW). Air sealing must take place within 3 months of equipment installation. Equipment must be rebate-eligible and 20% CFM reduction is required.
- Mini-split rebates are capped at $4,000 per HPwES customer and $5,500 per Assisted HPwES customer.
- The "Natural-Draft Water Heater Removal" incentive is applicable upon completion of a rebate-eligible air sealing project (20% CFM reduction is required). Residences below the Building Airflow Standard at the time of the energy assessment are eligible for this incentive without completing an air sealing project.

Hybrid "Dual Fuel" Systems | Incentive Requirements
Equipment of the same efficiency is not eligible for rebate. There must be an efficiency gain to qualify for rebate across the board – for all measures but especially for HVAC measures.

- **Air Source Heat Pump (ASHP) & Furnace Installation in a Hybrid System**
    - Both the ASHP and furnace must meet the hybrid incentive requirements to qualify for the hybrid incentive.
        - If the ASHP doesn't qualify, the furnace, regardless of efficiency, doesn't qualify.
        - If the ASHP qualifies but the furnace doesn't, the ASHP qualifies for the standalone ASHP incentive; the furnace doesn't qualify.
- **ASHP-Only Replacement in a Hybrid System**
    - If the ASHP qualifies, the standalone ASHP incentive applies.
- **Furnace-Only Replacement in a Hybrid System**
    - If the furnace qualifies, the standalone furnace incentive applies.

Condensing Tankless Water Heater Replacement
- The replacement of an existing condensing tankless water heater with a new tankless water heater is not eligible for program incentives.
    - "Condensing" units will be identified by way of a PVC intake and exhaust pipe.
    - Upgrading a non-condensing tankless water heater to a rebate-eligible model is eligible for program incentives.

Contractor Eligibility & Enrollment

A key goal of the Home Performance with ENERGY STAR® (HPwES) Program is to develop a network of qualified Participating Contractors to enhance local business development, increase employment of Delawareans, and heighten customer satisfaction. Contractors are responsible for properly installing qualifying improvements and providing eligible services to eligible Delaware Participants. To become a Participating Contractor in Energize Delaware's HPwES Program (which includes the AHPwES track), contractors must sign, submit, and adhere to the Contractor Participation Agreement (CPA) form in addition to signing an acknowledgement of receipt of this Contractor Operations Manual (COM). Participating Contractors must have a BPI-certified **Building Analyst Professional (BA-P)** on staff or partner with a participating BPI-certified trade ally.

Prospective contractors must register their organization as a HPwES Participating Contractor through ICF's Registration Platform. You will need to log in as a new user and provide some basic company information. The following enrollment documentation will be requested:

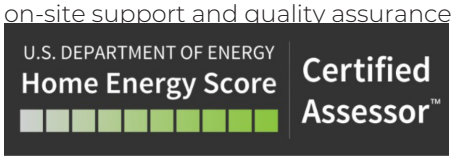
- Download, sign, and submit the Contractor Participation Agreement
- Download, sign, and submit the Contractor Operations Manual
- Submit a copy of your Delaware Business License
- Submit a copy of General Liability Certificate of Insurance with minimum of $1,000,000 coverage
    - Insurance certificate must list DESEU and ICF as additional insured.
- Active HVACR and/or Plumbing license and/or Residential Electrician license — if a requirement of the Company's trade

Contractor Annual Renewal

Participating Contractors are required to renew their registration annually to remain active within the Program. This annual renewal process allows the Program to retain up-to-date documentation from all Participating Contractors. Please submit updated enrollment documentation (see "Contractor Eligibility & Enrollment") to **delawarehp@icf.com** by Jan. 1 of each year to remain active as a Participating Contractor.

Home Energy Score (U.S. DOE) – Certification Requirement

Assessment-Performing Contractors (APCs) are required to earn and maintain the designation of Home Energy Score Certified Assessor through Energize Delaware's partnership with the U.S. Department of Energy (DOE). The DOE requires candidates hold a relevant and current credential from one of the residential trade organizations listed on the Home Energy Score website. Qualified candidates must complete a virtual training simulation designed to standardize the data collection process across all HES assessors. Upon completion, the ICF team will administer an on-site mentoring session of your first Home Energy Score. The ICF team will continue to provide on-site support and quality assurance oversight from there.



Participating Contractor Minimum Requirements

The following minimum participation requirements will remain in effect to ensure the Program's high standards for quality work are met and HPwES customers are satisfied with their participation.

- Minimum of (10) completed projects per year.
- Three (3) quality inspection failures in a 6-month period will result in a written warning or suspension from the program.
- Unresolved quality inspection failures may result in suspension from the program.
- APCs must meet the minimum requirements of a Comprehensive Energy Assessment (CEA) outlined in this Manual for Program to approve CEA for payment.

Contractor Onboarding

Prospective contractors entering the Energize Delaware Program must participate in a virtual or in-person onboarding training session designed to bring them up to speed and educate them on program requirements and responsibilities. This training will be hosted by the ICF team on a routine basis.

Contractor Outreach

Program efforts will be made to continually engage Participating Contractors and support their efforts in taking a whole-house approach to improving a home's comfort, energy efficiency, and safety.

Contractor Meetings

Upon request of DESEU and/or ICF, Participating Contractors will be requested to attend meetings for program updates and additional trainings. The Program will work to ensure contractors are given notice in advance. In-person or virtual Trade Ally (All Hands) Workshops will be held bi-annually. Participating Contractors will have the opportunity to suggest agenda items prior to each Trade Ally Workshop.

Best Practices Working Group (BPWG)

The HPwES Program has established a Best Practices Working Group (BPWG), which will consist of representation from the Participating Contractors, DESEU, the DESEU Board (as interested), and ICF. The BPWG will meet, at minimum, on a quarterly basis. Participating Contractor representatives will be elected annually by their peers. Three Participating Contractors will be selected from each role group (APCs & IPCs). The Program reserves the right to bypass the annual election and extend a BPWG term across multiple years.

BPWG Working Group Representation Summary

- Nine (9) Participating Contractors
- Program Representation:
  - DESEU Representative(s)
  - DESEU Board Member(s) (as interested)
  - ICF Representative(s)

Program Sequence of Events

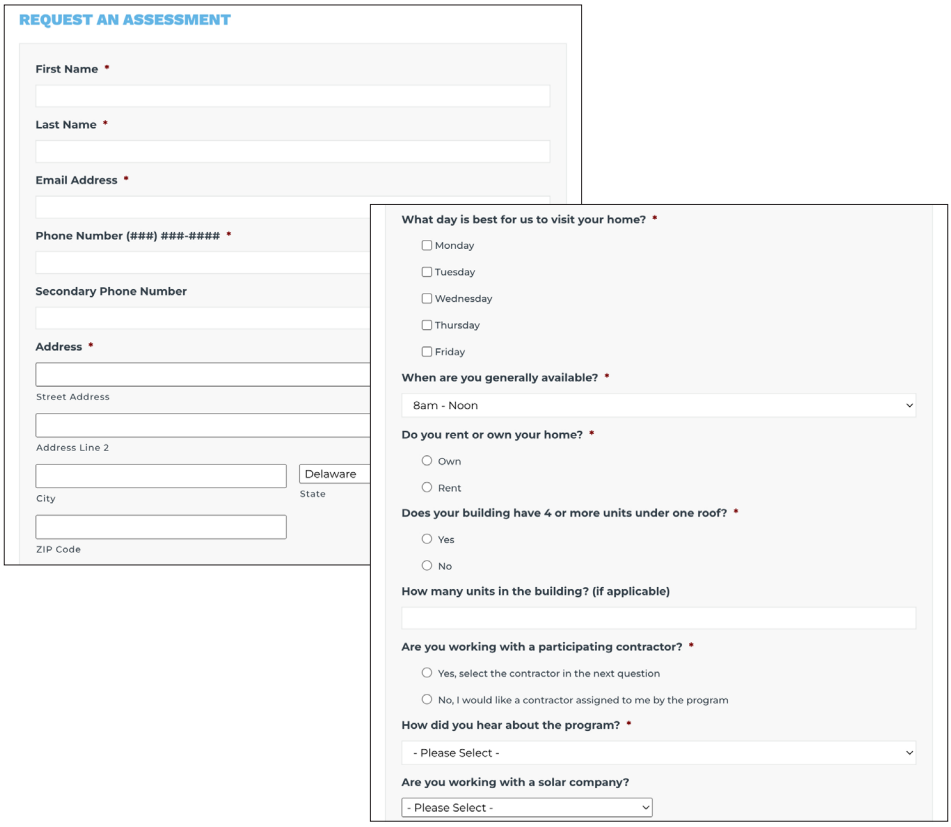
The following process flow is expected for all projects submitted through the HPwES and AHPwES tracks. Please note that it is essential to follow these flows to ensure timely rebate processing and payment.

Step 1: Participant Enrollment

To request an assessment, each interested Participant must fill out the online Request an Assessment application located on the Energize Delaware website.

Please note, for interested Participants who do not have internet access, they should call 1-877-524-1339. The Program will provide assistance in filling out the online interested Participant intake form on their behalf.

Below are screenshots that depict what the intake form requires from the interested Participant.



Step 2: Participant Enrollment Approval

The Program will aim to approve assessment intakes in 24 business hours or less. Confirmation of the assessment will be provided to the APC and Participant via the Enrollment Portal work queue.

For Participants who indicate they are not working with a Participating Contractor and would like to have one assigned, the Program will provide the Participant with an APC who is in good standing with the Program. This allocation will be evenly distributed within each territory to APCs in good standing with the Program. The Program reserves the right to distribute a higher percentage of unassigned leads to APCs performing at a higher level of quality. The Contractor Scorecard and Program QA inspections will be used to determine the work quality of each APC.

When assigned a lead, the APC is asked to reach out to the interested Participant to schedule an assessment within 3 business days or less. For unresponsive leads, the Program asks APCs to make at least 3 attempts (via phone and/or email) with the interested Participant to schedule the assessment. After the third attempt, the contractor should notify the Program that it can close out the assessment request in the Program's system of record.

Step 3: Comprehensive Energy Assessment (CEA)

Prior to scheduling the assessment, the APC should confirm the company has received the customer intake form (via email) and the customer project file (via Enrollment Portal (EP) work queue).

The Comprehensive Energy Assessment (CEA) data will need to be entered into the Beacon tool by the APC for the project. The CEA shall include, at a minimum, the following elements:

Assessment Terms and Conditions: The APC shall present the Beacon Assessment Terms and Conditions to the homeowner for review either in a digital format for their digital signature or as a hard copy which can be uploaded into the Beacon for transmission with assessment data. A contractor will not proceed with an assessment or the installation of Direct Install Measures (DIMs) until the Participant has agreed to, and signed, the Beacon Assessment Terms and Conditions.

Participant Interview: At some point before, during, or after the physical inspection of the property, the APC shall interview one of the primary occupants of the home to identify any specific issues the Participant is seeking to address through the HPwES program. This will also identify typical occupant behavioral patterns as they relate to the performance of the home.

Review of Energy Bills: The APC shall also request historical energy (electric and gas — and when appropriate, water) bill data from the Participant as part of the CEA. This usage may be obtained directly from the Participant or via an Authorization to Release Information Form. A review of energy consumption data is critical to determining how the Participant uses energy; not having this information limits the effectiveness of the CEA. When historical fuel-use data is available, the APC shall review that data to identify patterns that will inform the prioritization of recommended measures and confirm that projected energy savings estimates are realistic. At a minimum, the APC shall review Participant-reported annual or monthly energy costs and use it as a benchmark against estimated cost-savings predictions.

Visual Home Survey and Inspection: A visual inspection shall be completed of the home's exterior, interior, thermal envelope, and all mechanical systems (including equipment, distribution systems, and controls). Relevant items should be recorded in the data collection process (and either during or after the assessment into OptiMiser). Any health or safety hazards must be identified, and appropriate actions and/or recommendations (per ANSI/BPI-1200) must be performed prior to installing Program measures.

Diagnostic Tests: Instrumented diagnostic testing must be completed as part of the CEA process as required to effectively assess the home's energy performance, produce energy savings estimates, and develop an accurate list of recommended improvement measures. This should include:

- Blower Door air leakage testing,
    - Health and safety conditions should be considered prior to Blower Door testing; ANSI/BPI-1200 Standards should be used to determine if testing is appropriate
    - When no Blower Door testing is performed:
        - Default values (provided by modeling software) should be used to estimate CFM50 or ACH
        - Customer report must include a note explaining why testing was not performed
- Duct leakage testing (when applicable)
- Calculations for ventilation compliance with the Building Airflow Standard
- Infrared picture capture (and analysis) when appropriate
- ANSI/BPI-1200 combustion safety testing and compiance with health and safety guidelines

Data Collection: Observed and measured data must be in accordance with BPI-1200 Technical Standards and the U.S. DOE's Home Energy Score data collection procedures, and include the following elements:

- The home's physical geometry, features, and measurements. This should include the siding, roofing, attic venting, foundation type, shading on property, windows, window coatings, doors, external HVAC components, and building orientation.
- The identification and performance data for heating, cooling, ventilation, and domestic hot water equipment and systems. Performance data should include fuel type, efficiency rating, age of equipment, model number, and brand.

- The identification and types of lighting and major appliances, which may be used to inform Participants of opportunities for improvements.
- The existing type, quantity, and condition of thermal elements of the building enclosure, including component types and R values.
- All other characterizations of the home required to generate a DOE-certified Home Energy Score.

Photos: The following photos should be taken, retained, and made available to Program staff for QA verification or other purposes. Failure to collect these photos may require a return visit to the site by the Participating Contractor.

- All equipment data plates (HVAC, water heating, etc.)
- Manometer readings in cubic feet per minute (CFM) for ducts and air infiltration, taken side-by-side with customer address and name visible.
    - Zonal pressure readings in Pascals (Pa)
    - Fan flow readings in cubic feet per minute (CFM)
- CAZ testing results
- Health and safety findings and all other major issues (e.g., water damage, mold, air leakage, duct leakage, etc.)
- Proposed retrofit areas and all other high priority areas (see "Step 4: CEA Customer Report Delivery")

Combustion Appliance Safety Testing: When combustion appliances are present in the home, combustion appliance safety testing shall be completed following the ANSI/BPI-1200 Standards.

Review of Overall Findings: After the on-site assessment is complete, a general overview of findings should be discussed with the Participant. If this overview discussion does not take place at the time of the on-site assessment, the APC should suggest the Participant follow up with them directly to conduct this discussion over the phone. The APC should also encourage the Participant to follow up with them directly to address any questions they have upon reviewing their Comprehensive Energy Assessment Report (see "Step 4: CEA Customer Report Delivery").

Review of Eligible Rebates and Financing: APCs are expected to provide a prioritized list of recommendations for proposed retrofit measures that the Participant can contract improvements for.

- **Low Interest Loans** (up to $50,000, at 5.99% APR for terms of up to 10 years for energy-saving improvements) can be offered to Participants. Participating Contractors and Participants can call 877-453-2327 or visit Home Energy Efficiency Loan Program – Energize Delaware Loan Program (energizedelawareloans.org) to apply and verify current terms and conditions for the Energize Delaware Loan Program. It is highly recommended that Participants applying for HPwES rebates and seeking financing options be presented with the loan options available through Energize Delaware in prioritization over other external loan options. Further, there is an incentive opportunity for Contractors who recommend loans to customers who complete the loan process. Currently, that incentive is $400.00.
- **Sample Narrative for Loan Financing:** There are a number of options for financing your energy efficiency project. The Program offers qualifying homeowners low-interest loans up to $50,000, at 5.99% APR for terms of up to 10 years, for energy saving improvements. If it's convenient for you, I am happy to leave you this Loan Brochure that has additional details.

Step 4: CEA Customer Report Delivery

APCs are expected to produce and provide Participants a report on all assessment findings within 10 business days. This Beacon report MUST include the following:

- Type and count of DIMs installed
    - **If no DIMs are installed, a reason must be provided on the report.**
- Evaluations and prioritized improvement recommendations:
    - Evaluations of all high priority areas are REQUIRED, including (but not limited to) the following:
        - Attic space(s) and accessible knee wall areas
            - Inaccessible attic spaces and enclosed ceiling cavities must be documented and noted on the customer report

    - Air leakage/infiltration (blower door results)
        - Building Airflow Standard (ASHRAE 62-1989) must be present on the report
    - Local ventilation (i.e. bath and kitchen exhaust fans)
    - Heating and cooling equipment
    - DHW equipment
    - All accessible foundation spaces (i.e. basements, crawlspaces, etc.)
    - Health and safety findings
- Photo documentation of the following:
    - Front of the house from the street showing the whole house (cover page). Photo must be of the actual home located at the address and not a generic template photo.
    - **Minimum (2) photos** of ALL high priority areas (including but not limited to those noted above)
    - Manometer reading displaying blower door results in cubic feet per minute (CFM)
- Estimated energy savings and dollar savings associated with each improvement
    - Site-specific electricity and fuel bills should be requested from the Participant and used to model usage behavior when at least 12-months of historical bill data is made available by Participant (most recent bills should be used).
- DOE-certified Home Energy Score (when applicable)
- **Multi-Family Participants:**
    - Blower door testing must be performed for all units with exterior doors (when appropriate — in accordance with ANSI/BPI-1200 standards)
    - When no blower door testing is performed:
        - Customer report must include a note explaining why testing was not performed. If no exterior door exists, photo of entrance door must be included.
        - Default values (provided by modeling software) should be used to estimate CFM50 or ACH
    - Minimum attic insulation requirement (R-19) will be waived for units with inaccessible attic spaces

Step 5: Work Scope Proposal and Rebate Reservation

Once a Scope of Work has been contracted between an Assessment Participant and a Participating Contractor, the Participating Contractor shall submit documentation for Program review through Beacon (see "Systems of Record" below) to reserve rebate funding. Failure to submit correct information may result in delays in reservation approval ("pre-approval").

Rebate reservations are good for 90 days from the time of approval, unless otherwise noted by the Program.

The following documentation must be uploaded through Beacon for the ICF team to begin the review process:

- A **customer-signed** proposal/contract of the proposed measures with:
    - Total project cost
        - Weatherization contracts must include itemized cost of each rebate-eligible measure
    - Itemized rebate per measure
    - Final R-value and square footage of surface area to be insulated
    - Fuel type per measure (natural gas vs. propane gas must be distinguished)
    - Model numbers and/or AHRIrReference numbers for each rebate-eligible piece of equipment
    - Language verifying "multi-stage" functionality of equipment (as needed)
- Participant-signed Terms & Conditions Agreement (separate document from the Beacon Assessment Terms and Conditions)
- CEA Report (Beacon PDF)

Step 6: Installation of Measures

The Program will aim to pre-approve rebate reservations in 3-5 business days. Confirmation of the project's pre-approved rebate amount will be provided to the Participating Contractor through email. Should a contractor have an emergency requirement or require approval faster than 3 business days, they can request an expedited review by reaching out to the ICF team at any time. Installations of eligible measures and equipment should not begin until rebates have been pre-approved. The Program should be made aware of changes to the project's scope of work (including equipment substitutions) by way of a new rebate reservation or direct contact with the ICF team.

Participating Contractors will install all qualifying measures for which incentives are provided in a professional manner, consistent with industry standards and in alignment with all applicable building codes; zoning laws; local, state and federal requirements; local permitting requirements related to their trade installations, if any; and other relevant requirements. The Participating Contractor is responsible for any applicable permits as required by aforementioned codes/laws. If any health and safety issue is found at the time of installation, the project will not be considered complete until the Participating Contractor installing the measure(s) submits documentation that the proper remediation of the health and safety issue identified during the installation has been completed.

Lastly, the Program advises Participating Contractors conduct their own, internal quality assurance inspections of work performed.

Step 7: Post-Installation Test Out Inspection

Once the work is complete, a post-installation Test Out Inspection must be performed by a BPI-certified **Building Analyst Professional (BA-P) at a minimum** Participating Contractor. A rebate reservation must be set in place prior to the Test Out Inspection. All Participating Contractors must partner with a qualified Test Out Inspector to offer this service. If an IPC does not have a partnership with a specific Test Out Inspector, the APC that completed the Participant's assessment will be responsible for reserving the Participant's rebate through Beacon, completing the Test Out Inspection, and finalizing the rebate for payment (see "Step 8: Final Documentation Submission"). The Program will compensate Test Out Inspectors with a payment of $400 for the Test Out Inspection and rebate processing of each completed project.

Test Out Inspections should be performed in accordance with ANSI/BPI-1200 Standards.

The following steps must be taken:

- Verification and documentation of all rebate-eligible measures and equipment
    - Inadequate installations and equipment discrepancies must be documented. The ICF team should be notified in a timely manner who will provide guidance on next steps and program requirements
    - Photo requirements:
        - Nomenclature photos of eligible mechanical equipment (HVAC, DHW, etc.)
        - Model number of eligible smart thermostats
        - Production photos of eligible weatherization measures
        - Post-installation manometer reading(s) in cubic feet per minute (CFM) for ducts and air infiltration
    - CAZ testing (when applicable)
    - Health and Safety (H&S) Inspection
        - Outstanding H&S issues may need to be resolved before a project can be considered complete by the Program
    - Completion of Test Out Inspection Form (customer signature required)

Step 8: Final Documentation Submission (Web Submitted)

Once the Test Out Inspection is complete, the Participating Contractor shall submit final documentation through Beacon for Program review to release rebate payment. This documentation submission can be performed by the IPC or the Test Out Inspector.

Participating Contractors will have 10 business days from the time the project is complete to submit the following documentation into Beacon:

- A Participant-signed, paid-in-full receipt with:
  - Total project cost
  - Total project rebate and/or itemized rebate per measure
  - Change orders and equipment substitutions clearly noted (may require new rebate reservation)
- The completed and signed Test Out Form
  - **The recipient of the rebate check must be indicated on the Test Out Form along with company performing the inspection.**
  - The Participating Contractor is responsible for ensuring the Test Out Form is filled out and signed appropriately. The rebate will not be processed until all Test Out information and signatures are in good order.
  - Participants that receive weatherization-type changes to their homes should be provided with a HPwES Participation Certificate upon request. This document must include pre- and post- blower door readings along with the original and final R-value(s) of all insulated spaces.
- Documentation of Efficiency and Sizing
  - HVAC Equipment: all HVAC equipment must be certified by the Air-Conditioning, Heating and Refrigeration Institute (AHRI). An AHRI Certificate matching the installed HVAC equipment must be submitted.
  - Water Heating Equipment: all water heating equipment must be certified by the Air- Conditioning, Heating and Refrigeration Institute (AHRI). An AHRI Certificate matching the installed water heating equipment must be submitted.

Step 9: Program Verification

Once the Program receives a final submission through Beacon, the Program will review the documentation to ensure accuracy and approve or reject the project within 10-12 business days.

It is the responsibility of the Participating Contractor to ensure all information submitted is correct and accurate. If documentation is found to be inaccurate or incorrect, the rebate will not be processed until the contractor resubmits the correct information or resolves the inaccuracy. Missing documentation and information will result in the delay of rebate processing and payment.

Prior to any payment of rebates, the Program reserves the right to verify sales transactions. A Participant's project may also be selected for a field quality inspection (FQI) (post-installation or in-process) by the ICF team. If any health and safety issue is found at the time of a FQI, the project will not be considered complete until the Participating Contractor installing the measure(s) submits documentation that the proper remediation of the health and safety issue identified during the FQI has been completed (see "Field Quality Inspections (FQIs)").

Where it is found that Program rules were not followed or deliberately ignored, there may be financial penalties or hold backs from the contractor to hold the Participant and Program harmless.

Step 10: Program Approval and Payment

Once the Program verifies the accuracy of the project, the Program will approve the measure(s) for rebate payment.

The rebate check will be sent to either the Participant or the Participating Contractor, as indicated by the Participant on the Test Out Form. The Participant-signed Test Out Form will take precedence over the payee listed in Beacon should there be a discrepancy.

Please allow 6-8 weeks for payment. Again, payment processing will take longer if information is missing from the application.

For rebate approval and/or payment status, please look the project up in Beacon or call 877-524-1339 with any questions.

Emergency Situations

The Program will only incentivize projects that adhere to the requirements and proper order of operations in the Delaware HPwES Program, which include:

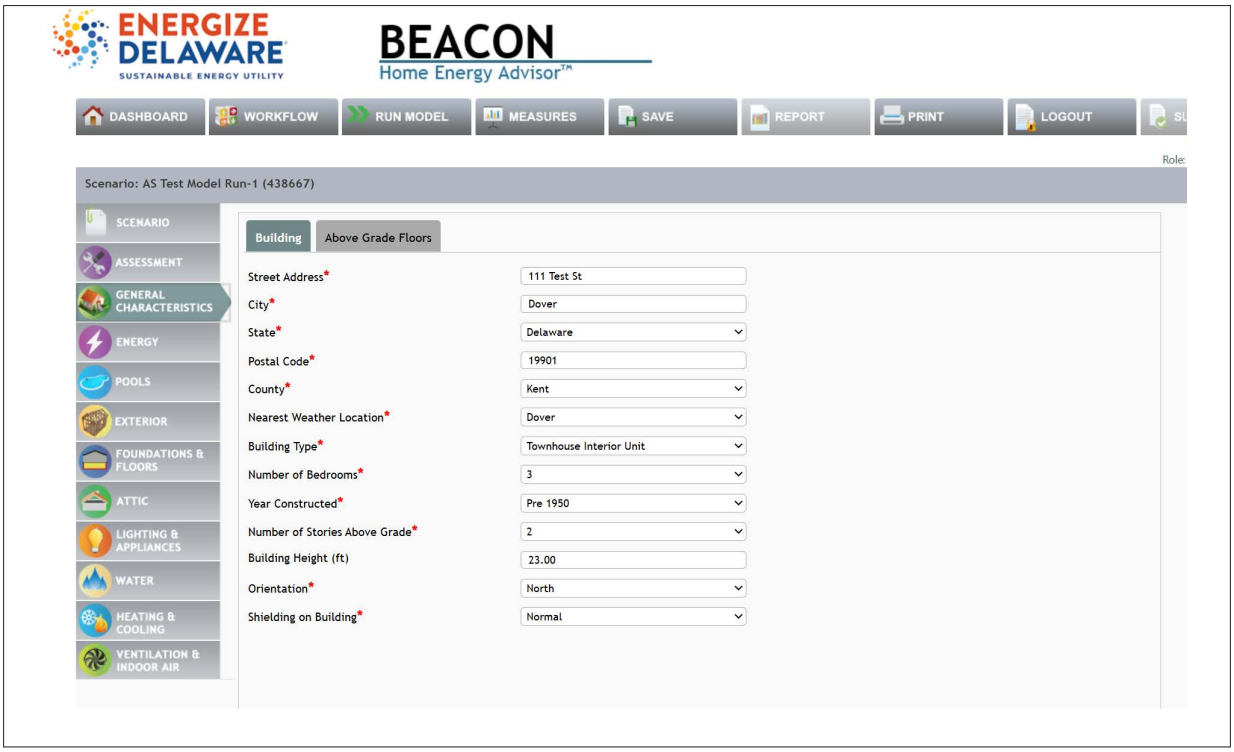
- An assessment is conducted prior to (or during) the finalization of any work scope.
    - An assessment should never be conducted after the installation of any mechanical equipment or weatherization measures.
- **In emergency situations where an installation must take place immediately, the ICF team should be notified right away, and they will assist in coordinating an emergency ("next-day" or "day-of") assessment appointment.** The ICF team will consider case-by-case waivers to accommodate emergency installation situations.

Systems of Record

Process/Purpose	System
Assessments & Direct Installs	Beacon
Incentive (Rebate) Applications	Beacon
Program CRM/Project Database	Sightline

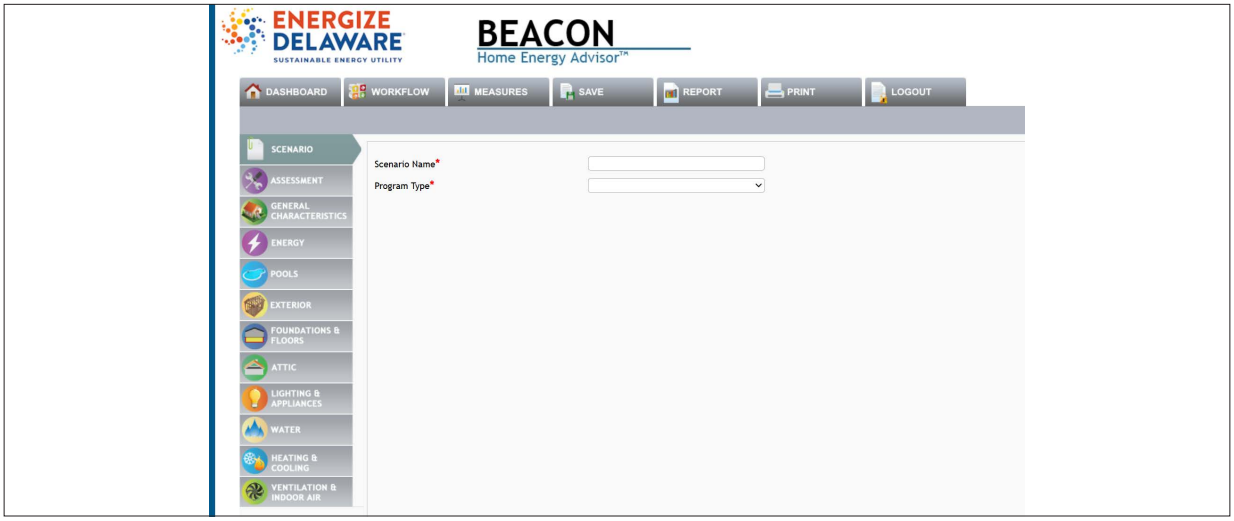
Beacon

Beacon is an HPXML compliant software the Program will use to model energy and financial savings for project assessments and installation measures.



Beacon

Beacon is a web-based platform (requiring internet access) the Program will use to receive and process program rebate applications.



Status (Beacon)	Explanation
Reservation Submitted	Rebate reservation has been submitted and is under review by the ICF Team
Reservation Approved	Rebate application has been pre-approved by the ICF team (installation can begin)
Application Submitted	Final documentation has been submitted and is under review by the ICF team (QA verification underway)
Create Rebates	Rebate has been approved by the ICF team and is awaiting approval from DESEU
Application Processing Complete	Rebate check has been issued and mailed via the United Stated Postal Service (USPS)
Submittal Flawed/ QA/QC Inspection	Rebate application has been kicked back for edits by the ICF team (see notification for reason)

Workflow Definitions

Assessments

Status (Beacon)	Explanation
Application Submitted	Assessment has been assigned to Participating Contractor; project ready in Beacon
Application Received	Assessment completed and submitted by Participating Contractor for assessment and DIMs reimbursement
Create Rebates	Project has been reviewed and approved for payment to the Participating Contractor
Application Complete	ACH payment has been issued to the Participating Contractor
Project Cancelled	Project has been cancelled by the ICF team

Installation Projects

Status (Efficiency Manager)	Explanation
Reservation Submitted	Rebate reservation submitted through Beacon and received by Program
Reservation Approved	Project has been pre-approved by all required approvers
Reservation Submitted	Final documentation submitted through Beacon (QA verification underway)
Create Rebates	Project has been approved for payment by all required approvers
Ready for Rebate	Project has been included on an invoice and sent to finance for payment (upon DESEU approval)
Application Processing Complete	Check has been issued and mailed
Submittal Flawed	Project is missing information and will arrive in Participating Contractor's "Action Required" queue
Cancelled	The rebate reservation has been cancelled by the ICF team
Ineligible	The project was rejected by the ICF team

Payment Approval Process for Assessments

Assignment to Upload

The project is assigned to a Participating Contractor and a project file is created in Beacon for the Participant's site address. The Participating Contractor completes the assessment and uploads the assessment data and supporting documentation from Beacon to Efficiency Manager. The project status changes during this part of the process to "Scheduled" and when complete are referenced as "Application Submitted"

Upload to Invoice

The ICF team will review each submittal to determine if additional information or documentation is required. Once reviewed and approved, the status is changed to "Completed." The upload to approval process is typically completed within 10 business days. Once approved, the projects are collected on a preliminary invoice and sent for review to DESEU twice per month (usually on the 15 and 30 of each month). At this stage, the status is changed to "Invoiced."

Invoice to Paid

Once DESEU approves the preliminary invoice, the "Invoiced" projects are then sent to the accounting department. The accounting department verifies the pre-funded account to confirm that funds are sufficient and proceeds to pay the incentive to the payee of record via an ACH payment. Payment is usually processed within 5 days.

Marketing & Communications

Program Marketing Plan

The Program will continue to perform general marketing and outreach efforts, direct leads to Participating Contractors as appropriate, and develop collateral to be shared with Participating Contractors.

Customer Education Materials

The following customer education materials may be distributed by contractors, available for download or request via the website, and will be distributed by Program staff at trade shows and other direct outreach events.

- Home Performance & Assisted Home Performance with ENERGY STAR brochures
- Rebate Measure Mix Tables
- ENERGY STAR brochures
- Post-energy assessment leave-behind materials designed to keep the Participant interested in signing a contract for measures promoted under the Program
- HPwES and Energize Delaware Participating Contractor logos for advertising, marketing, and sales materials
- Other materials as the budget allows

Energize Delaware Logo Use Guidelines

As a market-based program, Energize Delaware's HPwES Program welcomes and encourages Participating Contractors to promote awareness and interest of the Program and its offerings. To support this awareness and interest through contractors, Energize Delaware will make the Program name and logo available to a Participating Contractor after signing the Logo Use Guidelines Agreement Form ("Agreement Form").

The Logo Use Guideline Agreement Form can be attained through the following link:
https://energizedelaware.org/wp-content/uploads/2026/09/Co-Branding-HP.pdf

Co-Marketing Program

Energize Delaware's HPwES Program will provide Participating Contractors with matching advertising funds to assist in the promotion of the program. These matching funds are intended to cover up to 50% of the cost of co-branded advertisements, up to $500 per year. The Program will make marketing guidelines available to all Participating Contractors that wish to participate in the program's co-marketing program.

Field Quality Inspections (FQIs)

The ICF team will maintain standards of performance by inspecting the quality of delivered services by Participating Contractors at every stage of the Program delivery. Participating Contractors may or may not be notified by the program when their work will be inspected. Findings during Field Quality Inspections (FQIs) will be documented by the ICF team. Inspections will be used to identify coaching opportunities and corrective actions will be taken as needed (see "Participating Contractor Minimum Requirements"). Participant feedback will be collected at the time of all FQIs.

FQIs will primarily be performed as follows:

- **Assessment Inspection** — field visits to verify the quality of a Home Performance with ENERGY STAR Assessment. These visits will primarily focus on Participating Contractor professionalism, program delivery, and sales/work scope feedback. It will also focus on the accurate count and installation of DIMs as recorded by the Participating Contractor in Beacon and rebate project submissions in Beacon. The inspector may also assist the Participating Contractor with energy modeling in Beacon, explaining program details to the interested Participant, verifying existing conditions and equipment details, and/or clarifying next steps for program participation.
    - **Home Energy Score Inspection** — field visits at the time of the on-site data collection portion of Home Assessments. These visits will serve as an opportunity for the ICF team to mentor Home Energy Score Assessors on collecting data in accordance with DOE procedures.
- **Installation Inspection** — field visits that occur while work is in process or after work has been completed by a Participating Contractor to verify project accuracy. The inspector will verify the existence and condition of all rebate-eligible measures. The inspector will also conduct all applicable safety and verification testing.
    - **Desk Audit** — virtual inspection that verifies whether installed measures match the incentive (rebate) application and project contract. Required photos will be requested from Test Out Inspector to conduct each desk audit (see "Step 7: Post-installation Test Out Inspection" for photo requirements).

For both assessment and installation inspections, the Program's inspection criteria can broadly be categorized as follows:

1. FQI all incentivized measures that are being submitted through the Program
2. FQI the health and safety of the home to BPI protocols
3. FQI the results of all diagnostic measurements
4. FQI the project to ensure the program is represented properly and professionally
5. FQI the project for any missed opportunities

Inspection Results and Resolution Procedure

The Program reserves the right to notify Participants of the results on a case-by-case basis. Generally, the Program will discuss the results if there is a clear health and safety issue present (e.g. a spilling DHW system) or if the customer's rebate will be directly impacted (e.g. non-qualifying equipment was installed). In all instances in which there is an issue or failure (see definitions below) the Program will notify and work with the Participating Contractor(s). In an instance in which an issue or failure is found:

- The Participating Contractor(s) must remediate the issue and/or failure.
- The Participating Contractor must submit documentation that the proper remediation issue has been completed to the FQI Team at **DelawareHP@icf.com**.
    - The Participating Contractor should document the corrective actions taken with photographs.

- If re-verification of a project reveals a reduction to the project's incentive amount, the difference will be calculated, and the project will be incentivized at the new amount. If the new amount is lower than what was previously anticipated by the Participant, the Participating Contractor may be responsible for reimbursement to the Participant for the difference between the incentive amounts.
- The Program has the sole discretion to determine the required resolution and whether the repair is deemed to be satisfactory.

The Program reserves the right to re-inspect corrective actions meant to resolve potential health and safety issues. Where it is found that Program rules were not followed or deliberately ignored, there may be financial penalties, negative impact to the Contractor Scorecard, and suspension and/or removal from the program.

Pass/Fail Definitions and Criteria

Across the five (5) broad categories of the Program's inspection criteria, there are multiple pass/fail scenarios that could result. The various "Pass" and "Fail" definitions for the Program are detailed below.

Failure – No Resolution Available

This category is for ineligible measures, measures not installed, or measures installed in a manner that disqualifies them from rebate eligibility. No rebate will be paid out for these items and no additional follow up is required.

Failure – Follow Up Required

Items in this category must be addressed and photo evidence of the resolution must be submitted to the program within a timely manner based on the severity of the issue/failure. The Participating Contractor must submit this documentation to the FQI Team at **DelawareHP@icf.com**.

Pass – Resolved

This category is for projects after an initial finding of "Resolution Required". No additional follow-up is required for these items.

Pass – No Issues

Items in this category have met all the Program standards.

Contractor Disciplinary Procedures

Contractors are expected to maintain a high level of performance that complies with all Program terms and conditions. If a Participating Contractor is found to not be following Program rules — as set forth in the CPA and this Manual — the Program will implement corrective actions, up to and including removal from the Program. Though ICF will review and handle issues on a case-by-case basis, some common examples of activities that will lead to disciplinary action and/or removal are (this list is not all encompassing):

- Criminal activity
- Fraudulent activity
- Gross safety violation or continued unsafe installation practices
- False representation of the Program to interested Participants
- Repeated inspection failures
- Participant complaints

Energize Delaware and ICF are not responsible for any costs incurred by a Participating Contractor prior to and/or after a probation or suspension from the Program.

Safety & Risk Management

Adherence & Reporting Protocols

Any injury, illness, significant event, loss or damage occurring in an interested Participant's home or on an interested Participant's property must be immediately reported to the Program.

General HPwES Safety

The Program requires Participating Contractors to follow federal and state practices if a health and safety issue is found, either during the assessment, at the time of the installation of measures, or during a Test-Out for all projects. The project will not be considered complete — nor will a rebate be paid — until the contractor installing the measure(s) submits documentation that the proper remediation of the health and safety issues identified have been completed.

Hazardous Substances/Materials

The Program requires Participating Contractors to follow federal and state practices when hazardous substances are found. Hazardous examples include:

- Asbestos: If friable or damaged, the project cannot proceed until appropriately remediated by trained and authorized personnel. For non-friable or undamaged instances:
    - Pipes/Furnaces: Do not disturb or encapsulate. If encapsulating by trained, authorized personnel, do so prior to blower door testing.
    - Exterior Siding: Recommended that insulate walls through home interior. If not an option, look to remove without damaging and avoid cutting or drilling.
    - Walls/Ceiling: All precautions must be taken to not damage when drilling or cutting
    - Floor Tiles: All precautions must be taken to not damage.
- Vermiculite: Do Not Disturb
    - Best practice is to assume that the material may contain asbestos and stay out of the attic.
    - Blower Door tests are not recommended whenever friable asbestos is suspected. If there are appropriate opportunities for air sealing, air sealing from the interior of the home must accompany the scope of work.
    - Unless properly remediated, may not be available for any rebates. The Program will evaluate on a case-by-case basis.
- Lead
    - Follow guidelines established in EPA's Lead; Renovation, Repair and Painting Program.
- Organic Growth Substance (Mold) & Moisture
    - If a problem exists, the condition should be documented and evaluated to determine if any testing or remediation is necessary. Source control correction and/or remediation is required.
    - No air sealing or insulation should be performed until remediated.
- Knob & Tube (K&T) Wiring
    - Any house containing K&T must follow BPI Standards for the project to continue forward for rebates.

Combustion Safety (Gas Leaks/CO/CAZ)

Any house found to have combustion safety issues must follow ANSI/BPI-1200 Standards for combustion safety testing and resolution before the project can continue to move forward for rebates.

In the case of confirmed gas leaks or carbon monoxide (CO) issues, the Assessing Contractor is to alert the homeowner of the issue found and follow best practices for contacting the appropriate entity to remediate the issue in a time-sensitive manner. All Contractors should abide by CO Action Level Thresholds set in ANSI/BPI-1200, Section 7.8.5/ANSI/BSR Z223.1/NFPA 54, National Fuel Gas Code (seen in Table G.6).

Homeowners can call their gas utility provider for gas leaks or CO issues.

TABLE G.6
CO THRESHOLDS

Appliance	Threshold Limit
Central Furnace (all categories)	400 ppm[1] air free[2, 3]
Floor Furnace	400 ppm air free
Gravity Furnace	400 ppm air free
Wall Furnace (BIV)	200 ppm air free
Wall Furnace (Direct Vent)	400 ppm air free
Vented Room Heater	200 ppm air free
Vent-Free Room Heater	200 ppm air free
Water Heater	200 ppm air free
Oven / Boiler	225 ppm as measured
Top Burner	25 ppm as measured (per burner)
Clothes Dryer	400 ppm air free
Refrigerator	25 ppm as measured
Gas Log (gas fireplace)	25 ppm as measured in vent
Gas Log (installed in wood burning fireplace)	400 ppm air free in firebox

Safety & Risk Management Best Practices

The Program encourages Participating Contractors to have procedures in place for field safety and risk management protocols. Below is a list of field safety procedures that may involve the installation of a DIM. This list is not meant to be all-encompassing.

Broken Bulb Extraction – Safety and Removal Process

Follow when a bulb breaks while still partially or fully screwed into the socket.

During the direct installation process, employees may come across incandescent bulbs that have separated from the bulb base, where the bulb base piece remains lodged inside the fixture. In these instances, the broken bulb extraction safety and removal procedures should be followed.

Broken bulb extraction safety procedure: Once the need for the broken bulb extraction safety procedure has been identified, the luminaire must be powered down at the switch by placing the switch in the "off" position. A current testing device should be used to test the luminaire sockets to assure the luminaire has been powered down.

1. If the luminaire is identified as powered-down, the employee may proceed with removing the incandescent bulb base piece from the fixture.

2. If the luminaire has not powered-down, after the switch has been placed in the "off" position and current is still present during testing, then proper lockout procedure at the breaker box/service panel should be followed.

Broken bulb extraction: Once the fixture has been identified as powered-down, an approved broken bulb extraction tool may be used to remove the broken incandescent bulb base that is lodged inside the fixture. To remove the broken piece, insert the broken bulb extraction tool into the broken piece and apply minimal pressure (Make sure to wear the proper safety gloves and safety glasses while performing this task). If possible, the other hand should grasp the base of the fixture that contains the broken piece. While applying pressure and turning the broken bulb extractor in a counter-clockwise direction, the other hand should firmly grasp the fixture base to prevent it from turning in the same direction as the broken piece. Not following this step may result in a loosening/fracturing of the wires that are connected/soldered to the back side of the fixture base piece. Once removed, the broken piece should be properly discarded. Make sure to restore power to the fixture to assure proper "test-out" of the fixture and newly installed bulb.

Clean-Up Procedure: Broken LEDs and Incandescent Bulbs

Follow for LED or incandescent bulb breaks. NOTE – this is a different procedure than for broken CFLs.

LEDs may contain dangerous chemicals such as lead and arsenic. The procedure for cleaning up broken LEDs differs from the procedure for cleaning up broken CFLs because the chemicals found within LEDs are not discharged into the breathable air when the LED breaks. The chemicals are components of the solid pieces that make up the LED. CFLs contain mercury which can be released into the breathable air immediately upon breakage. Therefore, CFLs pose a greater immediate hazard risk than LEDs.

Items needed for broken LED or incandescent bulb clean-up:

- Safety gloves
- Safety glasses
- Hand broom
- Dustpan
- 2 small trash or sandwich bags
- Duct tape
- Vacuum cleaner with hose attachment

Clean-Up Procedure:

1. Don the safety gloves and safety glasses to protect your hands and eyes from glass or plastic shards prior to beginning the clean-up process.
2. Prepare the trash bags by placing one inside the other. Double bagging can prevent shards from poking though. You may also use plastic sandwich bags for small clean-ups.
3. Sweep up larger shards using a hand broom and dustpan. Dump the shards and metal components into the trash or sandwich bags.
4. Tear off a strip of duct tape about 6" long. Press the adhesive side slightly to the surface where the bulb broke. This will pick up small pieces of glass that the broom left behind. Once done, place the duct tape into the plastic bag and seal or tie the bag closed.
5. If available, use a hose attachment on a vacuum cleaner to suck up the rest of the bulb particles. DO NOT USE a vacuum cleaner that belongs to a Participant; the vacuum should be a tool of the assessment or installing company.
6. NOTE: This may not be a necessary step if the bulb broke on a hard surface. It is recommended to perform this step if the bulb broke over a carpeted area. If the bulb broke over a carpeted area, you may eliminate step 3 above, as a dustpan will not be effective on carpet.
7. Properly dispose of the bagged-up pieces.

Loose Fixture Identification Procedure

Follow to test fixtures prior to replacing the bulbs.

During the direct installation process employees may come across lighting fixtures that are loose or poorly secured to a ceiling or wall. In these instances, the Participant should be made aware of the issue and the installation should not proceed. If the Participant can properly secure the fixture to the ceiling or wall during the visit then the installation may proceed if the installer feels safe moving forward.

Clean Up Procedure: Mercury in Thermostats

Follow to clean mercury spills from thermostats.

Items needed for small spill mercury clean-up:

- 4-5 Ziploc-type bags
- Trash bags
- Rubber, nitrile or latex gloves
- Paper towels
- Cardboard or squeegee
- Eyedropper
- Duct tape or shaving cream and small paint brush
- Flashlight

Clean-Up Procedure:

1. Put on rubber, nitrile, or latex gloves.
2. If there are any broken pieces of glass or sharp objects, pick them up with care. Place all broken objects on a paper towel. Fold the paper towel and place in a zip-lock bag. Secure the bag and label it as directed by your local health or fire department. Follow the "Mercury Recycling Procedure" for properly recycling the liquid mercury.
3. Locate visible mercury beads. Use a squeegee or cardboard to gather mercury beads. Use slow sweeping motions to keep mercury from becoming uncontrollable. Take a flashlight, hold it at a low angle close to the floor in a darkened room, and look for additional glistening beads of mercury that may be sticking to the surface or in small cracked areas of the surface.
4. Note: Mercury can move surprising distances on hard-flat surfaces, so be sure to inspect the entire room when searching.
5. Use the eyedropper to collect or draw up the mercury beads. Slowly and carefully squeeze mercury onto a damp paper towel. Place the paper towel in a zip-lock bag and secure. Make sure to label the bag as directed by your local health or fire department.
6. After you remove larger beads, put shaving cream on top of a small paint brush and gently "dot" the affected area to pick up smaller hard-to-see beads. Alternatively, use duct tape to collect smaller hard-to-see beads. Place the paint brush or duct tape in a zip-lock bag and secure. Make sure to label the bag as directed by your local health or fire department.
7. Remember to keep the area well-ventilated to the outside (i.e., open windows and turn on fans in exterior windows) for at least 24 hours after your successful cleanup. Continue to keep pets and children out of the cleanup area. If sickness occurs, seek medical attention immediately. View information on health effects related to exposures to vapors from metallic mercury. For additional information on health effects, the Agency for Toxic Substances and Disease Registry (ATSDR) provides a Mercury Fact Sheet that also presents information on health effects related to exposures to vapors from metallic mercury.

Mercury Recycling and Handling Procedure – Thermostats

Follow when products containing mercury are removed from an interested Participant site.

Mercury-containing thermostats that are removed should be taken from the home and properly recycled, adhering to local and state laws as applicable.

The following steps should be taken to handle, transport, and recycle mercury thermostats:

- Each existing mercury containing thermostats must be placed inside their own separate zip-lock bag and sealed closed.
- They should then be placed inside a designated plastic bin inside the work van.
- Once the shift has ended, all mercury-containing thermostats must be removed from the plastic bag and placed into an approved recycling receptacle. (Visit http://www.thermostat-recycle.org/ for information on mercury recycling bins.)
- Only the piece that is attached to the mercury ampule should go inside the recycling bin per instructions provided by the Thermostat Recycling Corporation.
- All other pieces should be properly disposed of in the garbage.
- Instructions for proper contents and disposal should be clearly posted near the recycling bins.
- If for some reason the mercury recycling bin is not available, then the mercury -containing thermostat(s) must remain inside the zip-locked bag and inside the plastic storage bin until the first opportunity to recycle the materials arises. Such products should not remain inside a work vehicle for more than 48 hours.