FY 2016 New Jersey Home Performance with ENERGY STAR[®]



ELIGIBLE MEASURES (For Program fiscal year July 1, 2015 to June 30, 2016)

Home Performance with ENERGY STAR^{*} is designed to transform the way energy efficiency services are delivered to existing 1-4 family homes and low-rise multifamily buildings. To qualify for cash incentives and financing options offered through the Program, all materials and equipment must be new and the energy efficiency improvements must be contracted, provided, and installed by a BPI GoldStar contractor participating in the Program and must meet or exceed the minimum efficiency requirements as specified below. All projects <u>must</u> include at least attic air sealing and insulation in at least one location (as defined below*). For FY 16 HPwES incentives, see tables on page 2 (single family) and page 4 (multi-family).

Building Sl	hell (Tier 2 or 2)	Minimum Requirements ^{6,7}
Building Shell (Tier 2 or 3) Insulation (if proposing an upgrade to the following): Attic floor Roof deck (may not be combined with attic floor) Walls- above grade Floors Foundation walls, band joists- basement, crawl space Air Sealing		NJ State code and efficiency requirement R-38- final total insulation R-value R-38 installed R-value of insulation material R-13 installed R-value of insulation material R-19 installed R-value of insulation material R-10 installed R-value of insulation material Attic and any attached garage thoroughly sealed, Conducted by BPI contractor with pre & post blower door testing
Ducted Distribution System (Tier 2 or 3) Duct Sealing Duct Insulation		Minimum Requirements ^{1,5,8} UL 181 B Mastic; tape is disallowed R-8 supplies in attics, all other R-6 (except ducts inside thermal)
Mechanical Ventilation (Tier 2 or 3) Exhaust Ventilation Fans Heat/Energy Recovery Ventilator HVAC integrated with fan control and mechanical damper		Minimum Efficiency Requirements ^{,9} ENERGY STAR Qualified (must vent to exterior of building shell) No minimum efficiency requirement Installed with eligible furnace installation with 2%e motor
Public Gas /Electric Utility	Primary Heating System (Tier 3 only) Furnace ¹ – Natural Gas Boiler ¹ – Hot Water – Natural Gas Boiler ¹ – Steam – Natural Gas Air Source Heat Pump (Mini/Central Split System) ⁴ Ground Source Heat Pump ⁴	<u>Minimum Efficiency Requirements</u> ^{2,3} AFUE 92.0% AFUE 85.0% AFUE 82.0% 12.0 EER / 14.5 SEER / 8.5 HSPF 14.1 EER / 3.3 COP
	Cooling Equipment (Tier 3 only) Air Conditioner (Mini/Central Split System)	Minimum Efficiency Requirements ^{2,3,4} 14.5 SEER / 12.0 EER
	Water Heater (Tier 2 or 3) Tank- Natural Gas, ≥20 gal and ≤55 gal Tank- Natural Gas, >55 gal and ≤100 gal On-Demand- Natural Gas Indirect-Fired Tank (Tier 3 only) Heat Pump Water Heaters	Minimum Efficiency Requirements ² Energy Factor (EF) 0.67 and <u>power/direct vent</u> (i.e. not Category I venting) Energy Factor (EF) 0.75 and <u>power/direct vent</u> (i.e. not Category I venting) Energy Factor (EF) 0.82 (instantaneous water heaters) Installed with eligible boiler, at least 28 gal, with a min. of 2" of foam insulation Energy Factor ≥ 2.0
Oil, Propane, Municipal Electric	Primary Heating System- (Tier 3 only) Furnace ¹ – Propane ⁸ . Furnace ¹ – Oil ^{8,9} Boiler ¹ – Hot Water – Propane ⁸ /Oil ⁸ Boiler ¹ – Steam – Propane ⁸ /Oil ⁸ Boiler ¹ – Steam – Propane ⁸ /Oil ⁸ Air Source Heat Pump (Mini/Central Split System) ^{4,8} Ground Source Heat Pump ^{4,8} Steam – S	Minimum Efficiency Requirements ^{2,3} AFUE 92.0% AFUE 85.0% AFUE 85.0% AFUE 82.0% 12.0 EER / 14.5 SEER / 8.5 HSPF 14.1 EER / 3.3 COP
	Cooling Equipment (Tier 3 only) Air Conditioner (Mini/Central Split System) ⁸	Minimum Efficiency Requirements ^{2,3,4} 14.5 SEER / 12.0 EER
	Water Heater (Tier 2 or 3) Tank – Oil ⁸ Tank - Propane ⁸ , \geq 20 gal and \leq 55 gal On-Demand - Propane ⁸ Indirect-Fired Tank (Tier 3 only) Heat Pump Water Heaters	Minimum Efficiency Requirements ² Energy Factor (EF) 0.62 Energy Factor (EF) 0.67 and <u>power/direct vent</u> (i.e. not Category I venting) Energy Factor (EF) 0.82 (instantaneous water heaters) Installed with eligible boiler, at least 28 gal, with a min. of 2″ of foam insulation Energy Factor ≥ 2.0

¹ Requires BPI Heating Certification

Requires submittal of AHRI Certificate, CEE Directory, or ENERGY STAR listing as verification of system efficiency

³ Installed system cooling capacity must be sized within 115% for A/C or 125% for Heat Pump of cooling load calculation following ACCA Manual J and Manual S procedures

⁴ Refrigerant based systems require BPI AC/Heat Pump Certification and must be served by IOU electric utility

⁵Requires submittal of pressure pan testing and verification of air flow

⁶ Requires BPI Envelope Certification and submittal of pre & post blower door testing when required per BPI Standards

²When proposing insulation for enclosed cavities, the installed insulation should meet the listed R-values or at a minimum fill the cavity ⁸Oil/Propane and Municipal Electric (OPM) served equipment upgrades are eligible until June 30, 2016 or until SEP funds are fully exhausted- check Portal

⁹ Mechanical ventilation must be installed in compliance with ASHRAE 62.2 2013

Insulation R-values must be up to current NJ State Code; Insulation work is not restricted to any specific areas, but it must address at least one accessible

area, where applicable. The Program's intent is for each HPwES project to address at least one major plane/area. Options include:

- a. Attic floor- entire area
- b. Foundation walls entire area
- c. Crawlspace ceiling/walls entire area

Insulating ducts (they must also be sealed) outside the thermal boundary (pressure pan testing and verification of air flow are required)
 50% of total duct area must be outside the thermal boundary

e. Exterior walls

QUALIFIED ACCESSORIES

The costs associated with the installation of qualified accessories for Eligible Measures are eligible for incorporation into financing offered through the Program. These costs can also be included in the portion of the work scope being incentivized through the Home Performance work scope subsidy. Qualified Accessories are only eligible when installed as part of the installation of an associated Eligible Measure under the HPwES Program.

• Qualified Eligible Accessories Include: hydronic distribution parts, advanced boiler controls, ductwork, grills, diffusers, chimney liners, mechanical air cleaners, gas piping, and programmable thermostats as part of an installation of an associated eligible DHW or central HVAC system (e.g. hydronic parts with an eligible boiler) installed as part of the HPwES work scope. Recessed light fixtures that are ICAT Rated and ENERGY STAR qualified and coverable/sealable pull-down stair kits to replace rigid attic ladders are eligible as part of an eligible attic floor insulation upgrade. Service contracts, extended warranties, the initial assessment, and permits, are eligible for incorporation into financing and subsidies offered through the Program.

HEALTH & SAFETY MEASURES

The first \$2,000 of costs associated with any combination of the following Health and Safety Measures is eligible for incorporation into the work scope for Tier 2 or Tier 3 projects.

- Smoke, Radon, or Carbon Monoxide Detectors.
- Repairs/upgrades to combustion venting systems and power venting kits, measures to provide sufficient combustion air and prevent Combustion Appliance Zone (CAZ) depressurization, spillage or inadequate draft.
- Radon, lead, or asbestos abatement necessary to install eligible measures.
- Electrical service upgrade necessary to install the new heating/cooling unit.
- Upgrade of knob and tube wiring in order to install insulation in the area where knob & tube is present only.
- Crawlspace vapor barriers Minimum 6-mil plastic, grading around foundation and gutter repairs to address water intrusion; and attic passive ventilation.
- Fuel line leak repairs Permanent repairs, does not include oil tank leak repairs or replacement. The cost of an oil tank removal when included with an eligible heater replacement of an oil heater.
- Clothes dryer semi-rigid or rigid metal vented to outside with R-7 insulation in unheated space. Exhaust ducts same insulation & pitched up to outside.
- Repairs to the home due to water damage, molds and mildew, ice dams or other symptoms of poor building performance, as long as the cause(s) of building performance-related damage are being addressed.
- ENERGY STAR dehumidifier to control source moisture.

FY2016 HPwES INCENTIVES - Single Family & Townhouse Projects:

INCENTIVE TIER	REQUIREMENTS	CUSTOMER INCENTIVE
Tier 1	Energy audit only	No incentives
Tier 2	Estimated total energy savings from all work must total at least 5% but less than 20%. Must install air sealing. Must install insulation in at least one location. May also install water heater measures from the Eligible Measures List. Heating and A/C equipment is not eligible.	Cash rebate of 50% of the costs of the measures used to calculate TES up to \$2,000. 0% financing, 7-year term, up to \$5,000 where a utility financing offer is unavailable.
Tier 3	Level 1. Estimated total energy savings from all work must total at least 20% but less than 25%. Must install air sealing. Must install insulation in at least one location. May include additional measures from the Eligible Measures List.	Cash rebate of 50% of the costs of the measures used to calculate TES up to \$3,000. Either 0% financing, 7-year term, up to \$10,000 or 4.99% financing, 10-year term, up to \$15,000, where a utility financing offer is unavailable.
	Level 2. Estimated total energy savings from all work must total at least 25%. Must install air sealing. Must install insulation in at least one location. May include additional measures from the Eligible Measures List.	Cash rebate of 50% of the costs of the measures used to calculate TES up to \$4,000. Either 0% financing, 7-year term, up to \$10,000 or 4.99% financing, 10-year term, up to \$15,000, where a utility financing offer is unavailable.

Eligible Measures:

The only measures that may be included in a work scope, be applied toward TES calculations and be eligible for incentives are those that 1) are listed on and meet the requirements of the HPwES Eligible Measures document, 2) are approved by the NJ Clean Energy Program and 3) are proposed to be provided and installed by a HPwES Participating Building Performance Institute (BPI) GoldStar contractor. A Participating BPI contractor may subcontract all or a portion of their contracted work scope to any contractor that has the requisite BPI certification(s) for the work being performed or to any contractor if the Participating BPI contractor has the requisite BPI certification(s) and oversees the work being performed. The contract of the full work scope submitted to the NJ HPwES Program is required to be contracted directly with the Participating BPI contractor submitting the project to the program in order to be eligible for incentives. Any portion of a work scope that the customer has agreed to pay to a subcontractor or any other entity directly is not eligible for Program incentives. All payments must be made to the participating HPwES contractor.

New Jersey Home Performance with ENERGY STAR[®] Program **Customer Eligibility**

All customers and projects must meet all applicable requirements as listed below for Program and incentive eligibility.

• Eligibility by Fuel Type

Each fiscal year a portion of the State Energy Program (SEP) funds are allocated for oil/propane/municipal electric (OPM) customers under the NJ HPwES program. When/if these funds are depleted, the SEP-funded Home Performance with ENERGY STAR incentives are no longer available; contractors need to check the Clean Energy Program (CEP) website for funding availability. When SEP funds are depleted, only customers <u>served by or converting their heat fuel to</u> a natural gas or electric investor-owned utility (IOU)** are eligible to participate in the Program for cash-back incentives and 0% interest financing.

Investor-Owned Utility (IOU) Natural Gas or Electric Eligibility Requirements

Customers are required to have an IOU account to validate Program eligibility of the project. Please reference the table below of scenarios for customer funding eligibility depending on their heating fuel and electric provider.

Existing Heat Fuel	New Heat Fuel	Electric Provider	Funding Source
Natural Gas	Natural Gas	IOU or Municipal	CEP
Oil/Propane/Other	Natural Gas	IOU or Municipal	CEP
Oil/Propane/Other	Oil/Propane/Other	IOU with existing Central Air	CEP
Oil/Propane/Other	Oil/Propane/Other	IOU without existing Central Air	SEP
Oil/Propane/Other	Oil/Propane/Other	Municipal	SEP
Oil/Propane/Other	Electric	IOU	CEP
Electric	Electric	IOU	CEP
Electric	Electric	Municipal	SEP
Electric	Natural Gas	Municipal	CEP

<u>Eligibility by Housing Type</u>

o Single Family Home Eligibility Requirements

Single family homes and townhouses, and residential buildings of 2 to 4 dwelling units (individual living spaces) are eligible for the Home Performance with ENERGY STAR Program, which have a primary heating fuel of natural gas, electric, oil, or propane. All NJ HPwES projects are required at a minimum to include air sealing and insulation with pre & post blower door testing. If there are any safety issues that preclude blower door testing, the issue must be resolved before project is eligible for participation. Each single-family unit may include a 25% cfm50 reduction, or 1,000 cfm50 (whichever is less) reduction towards the total energy savings calculations. A townhouse is a single-family dwelling unit constructed in groups of three or more attached units in which each unit extends from foundation to roof and with open space on at least two sides.

In buildings of 2 to 4 dwelling units, each unit that has separate fuel metering (i.e. a separate electric meter, natural gas meter, and/or propane or oil tank) and separate HVAC and DHW systems, and can be tested individually with pre & post blower door are eligible for participation as a single unit. Any units that share fuel metering, HVAC, or DHW system, or cannot be separately tested with pre & post blower door are eligible for participation as one combined unit. The whole building is eligible to include up to a 25% cfm50 reduction, or 1,000 cfm50 (whichever is less) toward total energy savings calculations. If the building is done as separate projects, each project is eligible to include the savings above divided equally by number of units in the building. For example: a building of 4 units with two units sharing a heating system, with the other two units meeting the separate requirements above, the project is eligible as 3 projects and each may include the savings for 333 cfm50 reduction.

O Multi-Family Eligibility Requirements

The EPA has determined that small multi-family (MF) building developments may participate in HPwES. The NJ HPwES program defines eligibility as buildings that are less than three stories high, have single ownership, and where total building energy usage is accessible (through individual metering of the units within the multi-family structure, or a master meter at the building), with a primary heating fuel of natural gas, electric, oil or propane.

For the purposes of the New Jersey Home Performance with ENERGY STAR program, a multi-family building is eligible to participate in the program if it is made up of five or more dwelling units in a single building, or multiple buildings (each with five or more units), within a single geographic boundary and with a single property management structure, but no more than three stories high and with energy usage data available at the individual unit or at a building level (as opposed to sites with two or more buildings heated by a central heating plant or serviced by a common utility meter). Multi-family facilities that do not meet this criteria fall into the Commercial & Industrial (C&I) program for Energy Efficient measures. Each unit is eligible to include a reduction in air leakage toward the total energy savings calculations based on 1,000 cfm50 x the number of units with an attic space and a total of 14 dwelling units: 6,000/ 14 = 429 cfm50 per unit.

FY2016 HPwES INCENTIVES - Multi-Family Projects:

INCENTIVE TIER	Requirements	CUSTOMER INCENTIVE	
Tier 1	Energy audit only	No incentives	
	Estimated total energy savings from all work must total at least 5% but less than 15%.	Cash rebate of 50% of the costs of the measures used to calculate TES up to \$500 per unit.	
Tier 2	Must install air sealing.		
THE Z	Must install insulation in at least one location.		
	May also install duct sealing, duct insulation, and water heater measures from the Eligible Measures List.		
	Level 1.	Cash rebate of 50% of the costs of the measures used to calculate TES up to \$1,000 per unit.	
	Estimated total energy savings from all work must total at least 15% but less than 20%.		
	Must install air sealing.		
	Must install insulation in at least one location.		
Tier 3	May include additional measures from the Eligible Measures List.		
	Level 2.		
	Estimated total energy savings from all work must total at least 20%.	Cash rebate of 50% of the costs of the measures used to calculate TES up to \$1,500 per unit.	
	Must install air sealing.		
	Must install insulation in at least one location.		
	May include additional measures from the Eligible Measures List.		

• Measure Eligibility (see page 2)

When SEP funding is depleted, the following SEP funded measures are not eligible within the Program; these measures are only eligible when SEP funding is available. When SEP funding is depleted, the measures and any cost associated with the measures listed below may not be entered into Program software, cannot be included in energy savings calculations, cannot be included within the project cost and are not eligible for cash-back incentives and/or program financing. Please refer to the updated **FY 2016 NJ HPwES Eligible Measures List** on page 1 of this document.

• SEP Funded Measures:

Oil or Propane	Municipal Electric
- Heating Equipment	- Central Air Conditioning Equipment
 Heat-Only duct system upgrades DHW Equipment 	- Air Conditioning or heat pump Only Duct system upgrades
	- Air Source Heat Pump
	- Ground Source Heat Pump
	- Heat Pump DHW

** Investor Owned Utilities (IOU):

- Atlantic City Electric (ACE)
- South Jersey Gas (SJG)
- Public Service Electric & Gas (PSE&G)
- Jersey Central Power & Light (JCP&L)
- New Jersey Natural Gas (NJNG)
- o Elizabethtown Gas
- o Rockland Electric Company

New Jersey Home Performance with ENERGY STAR

c/o Conservation Services Group 75 Lincoln Highway, Ste. 100 Iselin, NJ 08830

NJHPHelp@csgrp.com