ELIGIBLE MEASURES AND MINIMUM PERFORMANCE STANDARDS

Affordable Multifamily Program Upstate (AMP Up)

NEW YORK STATE | NYSERDA
New York State Energy Research and Development Authority

Recommended measures shall meet each of the Minimum Performance Standards included in this table. For any measure where the Minimum Performance Standard is less stringent than BPI, Inc. Technical Standards for MFBA, or applicable local, state, or national codes, the more stringent guidance shall be followed. For building components or systems not addressed in this document, the recommended measure must meet or exceed applicable local, State, or national code. This document shall be used in conjunction with the Quality and Market Standards checklist available on the Program Website.

Tier 1 must meet eligibility criteria from the Program Manual and be installed with at least one measure from the Weatherization, Electrification, or Deep Retrofit Incentive Category.
Tier 2 must meet eligibility criteria from the Program Manual and be installed with at least one other measure from any Incentive Category.
Tier 3 must meet eligibility criteria from the Program Manual.

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Appliance	**Appliances**	Refrigerator (w. Freezer)	– Refrigerator (with freezers) shall be ENERGY STAR® labeled and found on the ENERGY STAR Product Directory at the time of purchase – Existing refrigerators must be removed and decommissioned in compliance with EPA Clean Air Act and other relevant NY State regulations. – Existing refrigerators must be manufactured on or before 12/31/2012. – Total volume of refrigerator and refrigerator-freezer space must not exceed 39cf. – Replacements shall be one-for-one regarding capacity, with a tolerance of ± 10%.	Tier 1
Prescriptive	**Hot Water**	Efficient-flow showerheads	– Shall be listed in the Water Sense Directory at the time of purchase – 1.8 GPM @ 80 psi max	Tier 2
Prescriptive	**Hot Water**	Faucet aerators	**– Kitchen Faucets** – Single Flow: 1.5 GPM @ 60 psi max – Dual flow: 1.8 GPM max @ 60 psi **– Bathroom lavatory faucets and all other faucet fixtures in dwelling units** – Shall be listed in the Water Sense Directory at time of purchase – 1.0 GPM @ 60 psi max	Tier 2
Prescriptive	**Hot Water**	Thermostatic Shower Restriction Valve	– Must meet UPC/IPC safety requirements for temperature activated flow reduction – Maximum temperature for shutoff must be between 100 and 104°F – Trickle flow during "pause" mode must be ≤ 0.1 - 0.3 GPM	Tier 2

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Prescriptive	**Envelope/Shell**	Room (RAC) Cover and Gap Sealer	– Install rigid, insulated (minimum R-5) cover on inside of permanently installed window or through-the-wall air conditioning unit. – Add a cover or seal the gap surrounding the unit. – Building resident or maintenance staff must be instructed on proper annual removal and reinstallation of the cover.	Tier 2
Prescriptive	**HVAC**	Heating/Cooling, Steam Pipe Insulation	– Either rigid foam or cellular glass pipe insulation must be used. – Minimum Piping Insulation Thickness as required by ECCC NYS. – Measure applies to copper, steel, CPVC, or PEX piping with a nominal diameter between 0.50-4". HDPE piping is not eligible for this measure.	Tier 3
Prescriptive	**HVAC**	Primary HVAC combustion tune-up (Boiler/Furnace)	– Available for boilers/furnaces that have not received a tune-up in 5 years or more. – Must include flue gas analysis confirming combustion efficiency improvements for high and low fire (including a detailed system tune-up report including combustion efficiency readings before and after, stack temp, CO_2/O_2 readings, and efficiency results) – Must include inspection, cleaning, and/or adjustment of boiler/furnace and appurtenances per manufacturer's recommendations.	Tier 1
Prescriptive	**Controls**	Advanced Thermostat	– Only eligible for buildings with centralized heating and cooling systems. – Thermostat must be an ENERGY STAR certified smart thermostat and must be found on the ENERGY STAR Product Directory at the time of purchase. – Eligible when replacing a manual or non-connected programmable thermostats. – Must be capable to support integration with utility programs to prevent brownouts, blackouts, while preserving consumers ability to override those grid requests.	Tier 3
Prescriptive	**Controls**	Install TRVs or radiator valves	– Devices must allow residents to control room temperature locally. – Applicable to one and two-pipe steam and hydronic system radiators in tenant units only.	Tier 3
Prescriptive	**Controls**	Steam Trap - Low Pressure	– Available for low-pressure (≤15 psig) thermostatic (including float and thermostatic), mechanical, and thermodynamic steam traps only. – Not available to municipal steam systems. – Replace or repair traps to restore functionality.	Tier 1

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Prescriptive	**Lighting**	Exterior Lighting	– Replace existing incandescent and fluorescent luminaires with energy efficient lamps, LED lamps, and improved lighting fixtures in exterior spaces. – Must provide the required illumination at reduced input power. – Must meet the minimum requirements as defined in the most recent Design Lights Consortium qualified products list. – Exterior lighting shall have an efficacy of greater than or equal that specified in ECCC NYS. – Fixtures must include automatic switching on timers or photocell controls except fixtures intended for 24-hour operation, required for security, or located on apartment balconies. – Removed fluorescent lamps and ballasts must be disposed of in an environmentally sensitive manner, adhering to a relevant local, State and national codes.	Tier 1
Prescriptive	**Lighting**	Interior Lighting	– Replace existing incandescent and fluorescent luminaires with energy efficient lamps, LED lamps, and improved lighting fixtures in interior spaces. – Must provide the required illumination at reduced input power. – Must meet the minimum requirements as defined in the most recent Design Lights Consortium qualified products list. – All exit signs shall be specified LED (not to exceed 5W per face) or photo luminescent and shall conform to local building code. Fixtures located above stairwell doors and other forms of egress shall contain a battery back-up feature. Must be permanently mounted or hardwired. – Removed fluorescent lamps and ballasts must be disposed of in an environmentally sensitive manner, adhering to a relevant local, State and national codes.	Tier 1

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Weatherization	**Envelope/Shell**	Airsealing	– Exterior envelope, as well as interior walls/partitions between conditioned and unconditioned spaces should be inspected and all gaps sealed. At minimum, the following should be inspected and sealed using caulking, gasketing, and weatherstripping, based on inspection results: a. Caulk and weather strip doors and windows that leak air, and install door sweeps on doors leading to the exterior or unconditioned space. Weather stripping shall be mechanically fastened, foam-filled tubular gasket vinyl weather stripping along all sides and tops of all doors. All latches, hinges, and self-closing mechanisms shall operate smoothly and properly after weather stripping is installed. b. Repair doors and windows leading from conditioned to unconditioned spaces, including replacement of damaged components (e.g. frame jamb, threshold) c. Seal leaks between unconditioned and conditioned spaces (including unconditioned basements and attics), to include but not limited to, plumbing, ducting, electrical wiring, wall top plates, chimneys, flues, and dropped soffits. d. Use foam sealant on larger gaps around windows, baseboards, and other places where air leakage, infiltration or exfiltration, may occur.	Tier 3
Weatherization	**HVAC**	Duct Sealing and Insulation	– Only ductwork located in unconditioned spaces is eligible. – Insulate ducts ≥ 3" to R-8 and those <3" to R-6. – Clean and seal all central ventilation duct work (e.g. aerosolized sealant product) to meet duct leakage limit of 6 cfm/100 ft^2 of conditioned floor area	Tier 2
Weatherization	**Envelope/Shell**	Insulation (Attic Access)	– Only applicable when access is located within a conditioned space. – Minimum insulation aligning with *Attic Insulation* measure – Access hatch/door weather stripping shall be mechanically fastened, foam-filled tubular gasket vinyl weather stripping along all sides and tops of all access hatches and/or doors	Tier 1
Weatherization	**Envelope/Shell**	Insulation (basement)	– Minimum R-20 – Insulate the basement foundation walls to extend to at least 18" below the exterior grade level to reduce thermal bridging	Tier 3

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Weatherization	**Envelope/Shell**	Insulation (roof)	– Minimum R-60 Insulation (Attic) – Minimum R-45c.i. Insulation (Flat Roof) – Must provide a continuous air barrier system across the attic/roof surface. – Thermal bridging at all connections must be mitigated	Tier 3
Weatherization	**Envelope/Shell**	Insulation (Wall)	– Minimum R-13 or filled to capacity ; R-20 Rim/band joist – Provide a continuous air barrier system, including at the roof-to-wall connection – Thermal bridging at all connections must be mitigated	Tier 3
Weatherization	**Envelope/Shell**	Window Replacement	–Maximum U-0.28 & SHGC-0.40 – ENERGY STAR® labeled and found on the ENERGY STAR Product Directory at the time of purchase – Opaque doors (greater than or equal to 50% glazed area) are treated as fenestration. – Operable windows must be replaced with operable windows. – Each dwelling unit must have a minimum of one operable window.	Tier 3
Electrification	Heat Pump Water Heater (HPWH) - General Requirements		– NEEP Cold Climate tested equipment only. – All DHW piping in mechanical rooms and all accessible DHW piping in unconditioned spaces shall be insulated to ECCC NYS. – The temperature of DHW delivered to the apartments shall be at least 110°F but not exceed 120°F when measured at the tap. – Recirculation control installed. Photo documentation submitted. – Water-to-water heat pumps only: heat source is not a fluid that was previously heated by fossil fuels, unless when used for waste heat recovery (e.g. from service hot water or heat-recovery chillers).	n/a
Electrification	**Hot Water - Electrification**	ASHP - HPWH	– Air-to-water unitary HPWH, 240V, <100 gal: Minimum 3.3 UEF – Air-to-water unitary HPWH, 240V, >100 gal: Minimum COP 3.0 – Air-to-water unitary HPWH, 120v: Minimum 2.2 UEF – Air-to-water split HPWH, ≤ 12 kW: Minimum 2.2 UEF – Air-to-water split HPWH, >12 kW: Minimum COP 3.0	Tier 3
Electrification	**Hot Water - Electrification**	WSHP - HPWH	– Water-to-water HPWH: <135 kBtuh: 14.1 EER/3.3 COP	Tier 3
Electrification	**Hot Water - Electrification**	GSHP - HPWH	– Water-to-water, ground water, open loop: <135 kBtuh: 16.2 EER/3.6 COP – Brine-to-water, ground loop, <135 kBtuh: 14.1 EER/3.3 COP	Tier 3

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Electrification	Heating/Cooling - Heat Pump General Guidance		– NEEP Cold Climate tested equipment only. – Variable Refrigerant Flow (VRF) and packaged window heat pumps are not eligible for incentives. – Building heating and cooling loads shall be calculated and sized in accordance with applicable federal, state, local and municipal codes and standards. – Installed system must be capable of heating all spaces to a minimum of 68-degrees farenheit. – For GSHP: must be equipped with either a two-stage or variable-speed compressor system, variable or constant speed ground loop circulator pump, and a variable speed blower distribution fan.	n/a
Electrification	**Heating and Cooling - Electrification**	ASHP	<=30kbuth (cooling, space constrained) – Split system, 13.9 SEER2/7.0 HSPF2 – Single package, 13.9 SEER2/6.7 HSPF2 <65kBtuh – Split system, 14.3 SEER2/7.5 HSPF2 – Single package, 13.4 SEER2/6.7 HSPF2 >=65kBtuh to <135kBtuh (cooling) – Split system or single package, 14 IEER/3.4 COP@47°F/ 2.25 COP@17°F >=135kBtuh to <240kBtuh (cooling) – Split system or single package, 13.5 IEER/3.3 COP@47°F / 2.05 COP@17°F >=240kBtuh (cooling) – Split system or single package, 12.5 IEER/3.2 COP@47°F / 2.05 COP@17°F Single Package Vertical Heat Pump, <65kBtuh – 11.0 EER/3.3 COP@47°F Single Package Vertical Heat Pump, >=65kBtuh to <=240kBtuh – 10 EER/3.0 COP@47°F	Tier 3
Electrification	**Heating and Cooling - Electrification**	PTHP	<7kBtuh – Standard size, 11.9 EER/3.3 COP@47°F – Nonstandard size, 9.3 EER/2.7 COP@47°F >=7ktbuh to <=15kBtuh – Standard size, 14.0 EER/3.7 COP@47°F – Nonstandard size, 10.8 EER/2.9 COP@47°F >15kBtuh – Standard size, 9.5 EER/2.9 COP@47 °F – Nonstandard size, 7.6 EER/2.5 COP@47°F	Tier 3

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Electrification	**Heating and Cooling - Electrification**	GSHP	Water-to-air, water (closed loop), <135kBtuh – 17.1 EER/3.6 COP Water-to-air, ground water (open loop), <135kBtuh – 21.1 EER/4.1 COP Water-to-water, water (closed loop), <135kBtuh – 16.1 EER/3.1 COP Water-to-water, ground water (open loop), <135kBtuh – 20.1 EER/3.5 COP Brine-to-air, ground (closed loop), <135kBtuh – 17.1 EER/3.6 COP Brine-to-water, ground, (closed loop), <135kBtuh – 16.1 EER/3.1 COP	Tier 3
Deep Retrofit	**HVAC**	Advanced Ventilation with Heat or Energy Recovery	– Must provide ASHRAE 62.2 compliant exhaust fan system equipped with AHRI 1060 or HVI 920 certified Energy or Heat Recovery Ventilator (ERV or HRV) components. – ERV/HRV sensible efficiency is 77% minimum. – For ERV/HRV: CAR dampers are installed on all exhaust registers. – Fan power must be less than 1 watt/CFM for all ERVs/HRVs installed. – For filtration, MERV 8 filter or better must be installed. Photo documentation submitted. – Projects are required to provide balanced ventilation, resulting in equal whole dwelling unit supply and exhaust, with heat and/or energy recovery to each dwelling unit. Balanced ventilation requires providing both supply and exhaust ventilation with supply airflow within 10% of the exhaust airflow. – Bathrooms shall be continuously ventilated to a minimum of 20 CFM continuous or intermittently ventilated (controlled by the occupant) to a minimum of 50 CFM. – Kitchens shall be continuously ventilated to a minimum of 25 CFM continuous or intermittently ventilated (controlled by the occupant) to a minimum of 100 CFM. – For Central unit exhaust: The flow measuring equipment must capable of measuring within a +/1 CFM tolerance at flow rates as low as 20 CFM. – For Unitized Exhaust: If project installed new unitized exhaust fans, submit duct sizing information in lieu of testing flows.	Tier 3

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Deep Retrofit	**Envelope/Shell**	Envelope – overclad (Insulation - Opaque Shell)	– Minimum R-12ci – Provide a continuous air barrier system, including at the roof-to-wall connection –Thermal bridging at all connections must be mitigated	Tier 3
Resilience	**Heating and Cooling - Electrification**	Heat Pump Floodproofing	– Building must be deemed "flood exposed": located in the FEMA Flood Insurance Rate Map's 100-yr or 500-yr floodplain, and/or has experienced documented past flooding at site due to a storm or other climate event. – Heat Pumps must be floodproofed in accordance with FEMA P-348, typically by elevating the external condensing unit above the Design Flood Elevation on the building's roof or on an external platform.	– Must install Heating/Cooling Heat Pump measure – Flood Exposed: in current or future 100-yr or 500-yr floodplain, or documented past flooding at site
Resilience	**Hot Water - Electrification**	Heat Pump Water Heater Floodproofing	– Building must be deemed "flood exposed": located in the FEMA Flood Insurance Rate Map's 100-yr or 500-yr floodplain, and/or has experienced documented past flooding at site due to a storm or other climate event. – HPWH must be floodproofed in accordance with FEMA P-348, either by elevation above the Design Flood Elevation or by reducing potential flood damage to the greatest extent possible via installation of a concrete podium, basement knee wall, or other solution.	– Must install Heat Pump Water Heater measure – Flood Exposed: in current or future 100-yr or 500-yr floodplain, or documented past flooding at site
Resilience	**HVAC**	Advanced Ventilation Floodproofing	– Building must be deemed "flood exposed": located in the FEMA Flood Insurance Rate Map's 100-yr or 500-yr floodplain, and/or has experienced documented past flooding at site due to a storm or other climate event. – HRV and ductwork must be elevated above the Design Flood Elevation.	– Must install Advanced Ventilation with Heat or Energy Recovery measure – Flood Exposed: in current or future 100-yr or 500-yr floodplain, or documented past flooding at site
Resilience	**Electrical Infrastructure**	Electrical Panel Elevation	– Building must be deemed "flood exposed": located in the FEMA Flood Insurance Rate Map's 100-yr or 500-yr floodplain, and/or has experienced documented past flooding at site due to a storm or other climate event. – Pre-existing electrical panel is located below the Design Flood Elevation. – Electrical panel must be elevated above the Design Flood Elevation, including rewiring as needed.	– Must install at least one Electrification measure – Flood Exposed: in current or future 100-yr or 500-yr floodplain, or documented past flooding at site

Incentive Category	Measure Category	Measure Classification	Minimum Performance Standards	Eligibility Requisite
Resilience	**Heating and Cooling - Electrification**	Electrification for Heat Vulnerable Populations	– Allowed for projects transitioning from delivered fuels or electric resistance heating AND meeting the vulnerability criteria found in the Heat Vulnerable Populations Attestation (found on program page) – Building with existing heating type that is electric resistance or that uses delivered fuels. – Owner-signed attestation confirming heat-vulnerable populations.	– Must install Heating/Cooling Heat Pump measure – Allowed for projects transitioning from delivered fuels or electric resistance heating AND meet meeting the vulnerability criteria found in the Heat Vulnerable Populations Attestation (found on program website)
Resilience	**Envelope/Shell**	Hurricane Resistant Windows	– Windows must be hurricane-resistant laminated glass and eligible to qualify for an insurance premium discount as per NYS law.	– Must install Windows measure