

Category	Measure	QuestionID	TaskRequirement	Defect Category	Reference
2021 Appliances	Dehumidifier	Q000000844	Contracted unit installed per manufacturer requirements	Major	Contract/EmCalc, Manufacturer
2021 Appliances	Fridge and Freezer	Q000000845	Fridge and Freezer - contracted unit installed per manufacturer requirements	Major	Contract/EmCalc
2021 Assessment Quality	Data Collection	Q000000847	Customer signatures provided by contractor are authentic, the customer is certain they signed the document.	Major	Program Requirement
2021 Assessment Quality	Data Collection	Q000000848	Heating system nameplate efficiency and age of unit matches contractor's documented numbers	Minor	Program Requirement
2021 Assessment Quality	Data Collection	Q000000849	Projects with APwES work scope the customer received the Comprehensive Home Assessment	Incidental	Program Requirement
2021 Assessment Quality	Data Collection	Q000000850	Projects with AHPwES work scope confirm with the customer that the contracted costs for each measure are accurate and do not include work performed for measures not listed. For Assisted and Coordinated projects, verify that the customer incurred out of pocket expenses (unless there was a loan).	Major	Program Requirement
2021 Assessment Quality	Data Collection	Q000000851	Projects with AHPwES work scope the customer received the "So What's Next" brochure, or contractors brochure that outlines the next steps after an energy	Incidental	Program Requirement
2021 Assessment Quality	Recommendations	Q000000852	Smoke detector was proposed in homes not equipped with a smoke detector	Incidental	EmCalc
2021 Assessment Quality	Recommendations	Q000000853	CO detector was proposed in homes not equipped with a CO detector	Critical	EmCalc
2021 Assessment Quality	Recommendations	Q000000854	Air sealing has been recommended where measurable infiltration reduction is achievable and there are no unresolved roadblocks	Incidental	EmCalc
2021 Assessment Quality	Recommendations	Q000000855	Insulation has been recommended where it is cost effective and there are no unresolved roadblocks	Incidental	EmCalc
2021 Assessment Quality	Recommendations	Q000000856	Heating system and/or domestic hot water system have been recommended where the existing system(s) are in poor condition or pose a health risk	Incidental	EmCalc
2021 Assessment Quality	Recommendations	Q000000857	Windows and doors have been evaluated for performance and air sealing, resulting in appropriate recommendations	Incidental	EmCalc
2021 Assessment Quality	Recommendations	Q000000858	Major appliances were recommended for replacement with ENERGY STAR® models where the refrigerator or freezer was manufactured prior to 2000 or other major appliances are not ENERGY STAR®	Incidental	EmCalc
2021 Assessment Quality	Recommendations	Q000000859	Viable direct install/energy reduction measures have been recommended including LED bulbs, low flow shower heads, programmable thermostats, domestic hot water heater pipe insulation and domestic hot water temperature setback.	Incidental	EmCalc
2021 Assessment Quality	Recommendations	Q000000860	Insulating hydronic and steam heating system pipes in unconditioned spaces was recommended unless this measure could cause water pipes to freeze	Incidental	EmCalc
2021 Direct Install	CO & Smoke Detector	Q000000862	Contracted, CO, smoke or combination CO/smoke detector(s) have been installed as contracted	Critical	Contract/EmCalc
2021 Direct Install	CO & Smoke Detector	Q000000863	CO, Smoke or combination CO/smoke detector installed per manufacturer specifications	Incidental	Manufacturer specifications
2021 Direct Install	CO & Smoke Detector	Q000000864	CO, Smoke or combination CO/smoke detector powered by battery with 10 year service life	Incidental	Program requirement
2021 Direct Install	Hot Water Temperature Setback	Q000000869	Hot water temperature is set for 120 degrees F	Incidental	Program requirement
2021 Direct Install	Hot Water Temperature Setback	Q000000870	Homeowner has been instructed how to set temperature	Incidental	Program requirement
2021 Direct Install	LEDs	Q000000871	Contracted quantity of LEDs have been installed	Major	Contract/EmCalc
2021 Direct Install	LEDs	Q000000872	Bulbs are Energy Star rated	Incidental	Program requirement
2021 Direct Install	LEDs	Q000000873	Bulbs installed in areas where they are used 2 hours or more per day	Incidental	Program requirement
2021 Direct Install	Low Flow Showerhead	Q000000874	Contracted quantity of low flow shower heads installed	Major	Contract/EmCalc
2021 Direct Install	Low Flow Showerhead	Q000000875	Showerhead flow rate meets program requirements (2.5 GPM max)	Incidental	Program requirement - EmPower NY ER measure criteria
2021 Direct Install	Low Flow Showerhead	Q000000876	Connections are leak free	Incidental	Program requirement
2021 Direct Install	Pipe Insulation	Q000000865	Contracted quantity of insulation installed on hot water piping	Major	Contract/EmCalc
2021 Direct Install	Pipe Insulation	Q000000866	Insulation has required clearance from heat sources	Minor	Program requirement - EmPower NY ER measure criteria
2021 Direct Install	Pipe Insulation	Q000000867	Pipe insulation is R-3 neoprene or close cell foam	Incidental	Program requirement, NYS RC (N1103.5.3(R403.5.3))
2021 Direct Install	Pipe Insulation	Q000000868	Insulation is neatly mitered, tight fitting around all fittings and fastened securely	Incidental	Program requirement
2021 Direct Install	Programmable Thermostat	Q000000877	Contracted quantity installed	Major	Contract/EmCalc
2021 Direct Install	Programmable Thermostat	Q000000878	Thermostat has been programmed	Incidental	Program requirement
2021 General	General	Q000000880	Project has been cleaned up and construction debris have been removed	Incidental	Program requirement
2021 Health & Safety	Roadblocks	Q000000890	There is no clear evidence the contractor caused significant damage to the property (spray foam insulation blew out a wall, etc.)	Major	Program requirement
2021 Health & Safety	Roadblocks	Q000000891	Blower door depressurization tests were not performed in homes where there is a risk of PACM becoming airborne and being drawn into the dwelling.	Major	BPI Technical Standards for the Envelope Professional
2021 Health & Safety	Roadblocks	Q000000892	Insulation has not been installed in areas where live knob and tube wiring exists	Major	BPI Technical Standards for the Envelope Professional NREL SWS 4.1001.2
2021 Health & Safety	Roadblocks	Q000000893	Moisture sources have been mitigated through elimination of the source, isolation of the source, or ventilation of the space around the source	Major	BPI Technical Standards for the Envelope Professional
2021 Health & Safety	Roadblocks	Q000000894	Clothes dryers, regardless of fuel type, and bathroom exhaust fans must be vented directly outside using appropriate duct materials	Major	BPI Technical Standards for the Envelope Professional
2021 Health & Safety	Roadblocks	Q000000895	Areas having MLS greater than 10 square feet have not been depressurized	Minor	Program requirement
2021 Health & Safety	Roadblocks	Q000000896	Vapor barrier has been installed on exposed dirt floors using 6 mil polyethylene (minimum) or equivalent. The vapor barrier is sealed along all seams, penetrations and walls. Exceptions made only where access is impossible due to low clearance.	Major	Program Requirement
2021 Health & Safety	Testing Inspection	Q000000882	Gas Leak Testing - Pre-Existing Lines - Indoor ambient air sampled at each floor of the home with a Combustion Gas Detector has a LEL of 0%. When LEL is above 0%, gas leak testing performed on all gas piping and leaks tagged and photo documented.	Minor	Program requirement
2021 Health & Safety	Testing Inspection	Q000000883	Gas Leak Testing - Contractor Installed Lines - Gas leak testing performed on all gas lines and combustion appliances. All gas leaks shall be tagged and photo documented.	Major	ANSI/BPI-1200 Section 7.5
2021 Health & Safety	Testing Inspection	Q000000884	Combustion appliances pass spillage assessment under greatest depressurization achievable	Major	ANSI/BPI-1200 Section 7.9
2021 Health & Safety	Testing Inspection	Q000000885	Combustion appliance CO is below threshold limit under greatest depressurization achievable	Major	ANSI/BPI-1200 Section 7.9.5
2021 Health & Safety	Testing Inspection	Q000000886	Ambient CO throughout the building, including utility rooms, is below 9 ppm	Major	ANSI/BPI-1200 Section 7.3.3
2021 Health & Safety	Testing Inspection	Q000000887	Gas piping system has no open fittings or ends and all valves at unused outlets are plugged or capped	Critical	NYS RC (G2417.6.2)
2021 Health & Safety	Testing Inspection	Q000000888	Oil supply system is leak free	Minor	ANSI/BPI-1200 Section 7.6.1
2021 Health & Safety	Testing Inspection	Q000000889	CAZ and appliance related safety issues including, detached or corroded flue pipes, problems with flue/vent size or pitch, heat exchanger integrity, unvented heaters are not ANSI Z21.11.2 listed.	Critical	ANSI/BPI-1200 Sections 7.8.1.1, 7.8.1.3, 7.8.1.5, 7.8.2.2, 7.8.4
2021 Heating and Cooling	Clean and Tune	Q000000925	Heating appliance cleaned and tuned as contracted	Major	Contract/EmCalc
2021 Heating and Cooling	Ductwork	Q000000915	Duct to duct and duct to equipment connections are mechanically fastened and sealed with appropriate material	Minor	NYS RC (M1601.4.1)

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2021 Heating and Cooling	Ductwork	Q000000916	Ducts in semi or unconditioned space must be insulated to the minimum R-value	Minor	NYS RC (N1103.3.1)
2021 Heating and Cooling	Ductwork	Q000000917	Contracted ductwork has been installed	Major	Contract/EmCalc
2021 Heating and Cooling	Ductwork	Q000000918	Ducts are supported at the proper intervals	Incidental	NYS RC (M1601.4.4)
2021 Heating and Cooling	Ductwork	Q000000919	Duct return has not been installed in CAZ	Major	
2021 Heating and Cooling	Ductwork	Q000000920	Contracted amount of insulation was installed and meets or exceeds the specified R-value	Major	Contract/EmCalc
2021 Heating and Cooling	Ductwork	Q000000921	Duct sealing in accessible areas was completed as contracted	Minor	Contract/EmCalc
2021 Heating and Cooling	Ductwork	Q000000922	None of the contracted duct sealing was completed	Major	Contract/EmCalc
2021 Heating and Cooling	Ductwork	Q000000923	Duct sealing materials are UL181B or UL181A listed	Incidental	NYS RC (M1601.4.1)
2021 Heating and Cooling	Ductwork	Q000000924	Filter slot cover has been installed as specified	Incidental	BPI Technical Standards for the Heating Professional
2021 Heating and Cooling	Exhaust Fan	Q000000926	Contracted exhaust fan(s) installed	Major	Contract/EmCalc
2021 Heating and Cooling	Exhaust Fan	Q000000927	Exhaust fan and venting installed to manufacturers specifications. The fan vents to the exterior of the structure.	Major	Manufacturer specifications
2021 Heating and Cooling	HVAC Equipment	Q000000898	Contracted equipment was installed and the efficiency rating matches or exceeds the contract	Major	Contract/EmCalc
2021 Heating and Cooling	HVAC Equipment	Q000000899	Air filter is accessible and is not compromised when replaced	Incidental	NYS RC (M1401.2)
2021 Heating and Cooling	HVAC Equipment	Q000000900	Maintenance access is accessible	Minor	NYS RC (M1401.2)
2021 Heating and Cooling	HVAC Equipment	Q000000901	No electrical safety issues	Major	NYS RC (E3705, E3702.11, E4101.4)
2021 Heating and Cooling	HVAC Equipment	Q000000902	Electrical shutoff installed within sight of the appliance	Minor	NYS RC (E4101.5)
2021 Heating and Cooling	HVAC Equipment	Q000000903	Condensate drain is installed properly and discharges with air gap or other approved place of disposal	Major	NYS RC (M1411.3)
2021 Heating and Cooling	HVAC Equipment	Q000000904	Airflow through duct system must meet manufacturer's specifications to provide the design airflow	Major	Manufacturer specifications
2021 Heating and Cooling	HVAC Equipment	Q000000905	Replaced equipment has been removed from the home when included in the contract	Incidental	Contract/EmCalc
2021 Heating and Cooling	HVAC Equipment	Q000000906	Ancillary equipment related to the installed appliance has been installed as contracted	Incidental	Contract/EmCalc
2021 Heating and Cooling	HVAC Equipment	Q000000907	Equipment has been installed with clearances in accordance with their listing and label	Major	NYS RC (M1402.2, M2001.2)
2021 Heating and Cooling	HVAC Equipment	Q000000908	Vent/flue system is properly sized, pitched and has proper clearance to combustibles	Minor	NYS RC (M1801.3.1, M1801.3.4)
2021 Heating and Cooling	HVAC Equipment	Q000000909	CSST gas piping is properly bonded/grounded	Major	NYS RC (G2411.2)
2021 Heating and Cooling	HVAC Equipment	Q000000910	Gas piping properly sized	Major	Manufacturer specifications
2021 Heating and Cooling	HVAC Equipment	Q000000911	Temperature & pressure relief valve installed	Major	NYS RC (M2002.4, P2804.6.1)
2021 Heating and Cooling	HVAC Equipment	Q000000912	Temperature & pressure relief valve discharge tube installed to proper specifications	Minor	NYS RC (M2002.4, P2804.6.1)
2021 Heating and Cooling	HVAC Equipment	Q000000913	Fuel oil piping is leak-free and sized to provide adequate oil supply to all connected appliances	Major	Manufacturer specifications
2021 Heating and Cooling	HVAC Equipment	Q000000914	OEM manual left with the installed unit	Incidental	Program Requirement
2021 Leakage Testing	Blower Door Testing	Q000001035	Blower door test-in and test-out results were submitted	Incidental	Program requirement
2021 Leakage Testing	Blower Door Testing	Q000001036	Blower door results are within 10% of test out	Minor	Program requirement
2021 Leakage Testing	Blower Door Testing	Q000001037	Test-out results are above 70% of Building Airflow Standard (BAS), or mechanical ventilation has been installed to achieve the BAS	Major	BPI Technical Standards for the Envelope Professional
2021 Plumbing	Hot Water Heater	Q000001039	Contracted equipment was installed and the efficiency rating matches or exceeds the contract	Major	Contract/EmCalc
2021 Plumbing	Hot Water Heater	Q000001040	Hot water heater installed in location meeting the manufacturer specifications	Major	Manufacturer specifications
2021 Plumbing	Hot Water Heater	Q000001041	OEM manual left with the installed unit	Incidental	
2021 Plumbing	Hot Water Heater	Q000001042	The old hot water heater has been removed, unless the contract specifies otherwise	Incidental	Contract/EmCalc
2021 Plumbing	Hot Water Heater	Q000001043	Temperature and pressure relief valve installed	Major	NYS RC (P2804)
2021 Plumbing	Hot Water Heater	Q000001044	Temperature and pressure relief valve discharge tube installed to proper specifications	Minor	NYS RC (P2804)
2021 Plumbing	Hot Water Heater	Q000001045	Drain pan has been installed when water heater is located where leaks could cause damage. The pan must have a discharge tube to an appropriate drain	Minor	NYS RC (P2801.6)
2021 Plumbing	Hot Water Heater	Q000001046	Vent/flue system is properly sized, pitched and has proper clearance to combustibles	Minor	NYS RC (M1801.2), BPI-1200, Manufacturer specifications
2021 Plumbing	Hot Water Heater	Q000001047	No electrical safety issues	Major	NYS RC (E4101.4, E4101.5)
2021 Plumbing	Hot Water Heater	Q000001048	Electrical shutoff installed within sight of the appliance	Incidental	NYS RC (3705.1)
2021 Plumbing	Well Pump Repair	Q000001049	Contracted repairs to well pump completed	Major	Contract/EmCalc
2021 Plumbing	Well Pump Repair	Q000001050	Well pump cycles on/off based on demand/pressure, does not run continuously	Minor	
2021 Shell Measures	Air Sealing	Q000001052	All items stated in contract have been sealed (top plates, knee wall transition, plumbing and wiring penetrations, drop ceilings, soffits, chases, bath fan housings, windows, doors, recessed fixtures, air register boots, interior sheathing voids repaired, etc.)	Major	Contract/EmCalc
2021 Shell Measures	Air Sealing	Q000001053	Bypasses around chimneys, vents and flues have been air sealed using non-combustible materials	Major	NREL SWS 3.1001.1d
2021 Shell Measures	Air Sealing	Q000001054	Non insulation contact fixtures air sealed with rigid enclosure to provide space between fixture and insulation	Major	NREL SWS 3.1003.5c, 4.1001.1
2021 Shell Measures	Air Sealing	Q000001055	Attic and/or basement access, if contracted, is sealed using permanently mounted weather stripping and the access is secured with metal fastenings	Minor	NYS RC (R402.2.4)
2021 Shell Measures	Air Sealing	Q000001056	IR scans indicate little to no air leakage pathways	Major	Program Requirement
2021 Shell Measures	Air Sealing	Q000001057	Contracted weatherstripping installed on exterior doors	Minor	Contract/EmCalc
2021 Shell Measures	Air Sealing	Q000001058	Air leakage paths between attached or tuck-under garages and the living space have been sealed	Major	BPI Technical Standards for the Envelope Professional, NREL SWS 3.1501.1a, 3.1501.1b, 3.1501.1c, 3.1501.1d
2021 Shell Measures	Air Sealing	Q000001059	Contracted weather stripping installed on windows	Minor	Contract/EmCalc
2021 Shell Measures	Insulation	Q000001060	Insulation R-value and quantity installed matches contract	Major	Contract/EmCalc
2021 Shell Measures	Insulation	Q000001061	Installed insulation type matches the contract or provides equal performance to contracted material(s)	Major	Contract/EmCalc
2021 Shell Measures	Insulation	Q000001062	Loose fill insulation must be installed according to manufacturer's specifications and installed to a level condition	Minor	Manufacturer specifications
2021 Shell Measures	Insulation	Q000001063	Insulation has been dammed to maintain minimum clearances to heat sources such as chimneys, flues, recessed lights or bath fans with heat lamps.	Major	BPI Technical Standards for the Envelope Professional NREL SWS 4.1001.3
2021 Shell Measures	Insulation	Q000001064	Insulation is dammed to allow maintenance access and manufacturer required clearances. Damming installed to prevent intrusion of insulation into whole house fans, condensate pans, etc.	Major	Program Requirement

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2021 Shell Measures	Insulation	Q000001065	Attic access is insulated to R-14 or greater	Minor	BPI Technical Standards for the Envelope Professional
2021 Shell Measures	Insulation	Q000001066	Blocking/baffles have been installed at each soffit vent to ensure appropriate air flow to roof, protect insulation from wind-washing and restrain loose-fill insulation from congesting the soffit vents	Minor	BPI Technical Standards for the Envelope Professional
2021 Shell Measures	Insulation	Q000001067	Insulation is contained using a permanent damming around storage areas, hatches and pulldown stairs.	Incidental	Program Requirement
2021 Shell Measures	Insulation	Q000001068	Sufficient roof ventilation has been provided	Major	NYS RC (R806)
2021 Shell Measures	Insulation	Q000001069	Dense packed insulation has been installed to a density of 3.5 lbs./cu. ft. for cellulose and 2.2 lbs./cu. ft. for blown fiber that is manufactured for dense pack installation.	Minor	NREL SWS 4.1003.2a, 4.1004.1b, 4.1005.5b, 4.1005.6a, 4.1101.1b, 4.1103.1a, 4.1103.2c
2021 Shell Measures	Insulation	Q000001070	Insulation protected from wind washing (kneewalls, underside of floor framing in vented crawl space, etc.)	Minor	BPI Technical Standards for the Envelope Professional
2021 Shell Measures	Insulation	Q000001071	Vapor retarder is against the building surface exposed to warmer conditions for the majority of the year	Incidental	NYS RC (R702.7)
2021 Shell Measures	Insulation	Q000001072	Seams in rigid board Insulation are sealed when installed against the foundation wall, the insulation is secured to the wall and the insulation and air barrier material used on the rim/band areas must be connected to the insulation and air barrier used on the foundation wall.	Incidental	NREL SWS 4.1402.3h
2021 Shell Measures	Insulation	Q000001073	Basement walls without ground water leakage have a continuous air barrier on the warm side of the insulation. When absorbent insulation is installed the assembly is vapor permeable into the interior	Major	NREL SWS 4.1402.2
2021 Shell Measures	Insulation	Q000001074	Basement walls with ground water leakage have a continuous drainage plane to the drainage fields. Rough walls (e.g. rubble) have a waterproof membrane between wall and insulation, insulation is non-absorbent, such as closed cell foam.	Major	NREL SWS 4.1402.3
2021 Shell Measures	Insulation	Q000001075	Exposed rigid foam board or spray foam has required thermal and ignition barrier	Major	NYS RC (R316.4)
2021 Shell Measures	Insulation	Q000001076	Densepack insulation drill holes have been plugged, drainage plane repaired and the exterior finish has been securely reinstalled	Minor	NREL SWS 4.1103.2e
2021 Shell Measures	Replacement Doors & Windows	Q000001077	Contracted replacement windows and doors have been installed	Major	Contract/EmCalc
2021 Shell Measures	Replacement Doors & Windows	Q000001078	Replacement doors and windows function smoothly (open/close, tilt in, etc.), the perimeter has bee air sealed, the interior and exterior finishes have been	Minor	Program Requirement