

Administrator: QA Residential Inspection Checklist



NYSERDA

Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000002	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Energy Action Plan Completed	1	False	False	False		N/A for HPwES. EmPower Action Plan completed by customer; customer can identify actions they have completed or will be completing		
Q000000003	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Building Specifications Depicted Accurately	2	False				Measurements provided by contractor for heat loss and savings calculations, building components, etc. are accurate		
Q000000004	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Continuous Ventilation Requirement Calculation Correct	1	False	False	False		Where continuous ventilation is required the auditor and inspector should arrive at same continuous ventilation requirement		
Q000000005	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Preexisting Conditions Accurately Depicted	2	False	True	False		The pre-existing conditions as recorded by the contractor must match site conditions as they exist		
Q000000006	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Heating System Accurately Depicted	1	False	True	False		Nameplate efficiency and age of unit matches contractor's documented numbers		
Q000000007	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Blower Door Test Results Submitted	2	False	False	False		Blower door test-in and test-out results were submitted		Blower door test-in and/or test-out results were not submitted by the contractor.
Q000000008	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Comprehensive Audit Submitted	2	False				Customer received the audit report and felt it was adequately explained to them by the contractor		
Q000000009	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Customer Signature Verified	2	False	True	True		Customer signatures provided by contractor are authentic		Customer is 100% certain they did not sign document.
Q000000010	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Air Sealing	1	False				If reduction is available and there are no unresolved roadblocks, air sealing should have been recommended		
Q000000011	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Insulation	1	False				If insulation is cost-effective and there are no roadblocks preventing upgrades insulation should have been recommended		

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Q000000012	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Insulation Voids Identified	1	False	False	False		Voids in insulation must be accounted for by determining the net square footage of uninsulated area and recording it as a separate component of the building		
Q000000013	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Domestic Hot Water	1	False				If the existing system is in poor condition, did not vent combustion gases safely or is an electric tank that could have advanced controls installed upgrades should have been recommended		
Q000000014	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Heating System(s)	1	False	False	False		If existing system is in poor condition, improperly sized or creating a health risk, replacement should have been recommended		
Q000000015	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Windows and Doors	1	False				Windows and doors should be evaluated for performance, operation, and air sealing, resulting in appropriate recommendations		
Q000000016	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Appliances	1	False	False	False		EMPOWER ONLY - If existing refrigerator or freezer is more than 10 years old or other major appliances (dw, washing machine, dehumidifier etc) are not ENERGY STAR®, upgrades to ENERGY STAR® models should have been recommended		
Q000000017	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Direct Install Measures	1	False				Covers CFLs, LEDs, light fixtures, aerators, showerheads, CO and smoke detectors, tank wrap, pipe insulation, programmable thermostats, window insulation, and DHW temp setback. If existing conditions meet eligibility requirements for replacement, replacements should have been recommended or installed		

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Q000000018	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Distribution Systems: Ducts	1	False				If duct system leakage exceeds 10% of the nominal air flow of the system and the ducts are located in an unconditioned space or semi-conditioned space (unvented and adjoined to the tempered earth) then duct sealing should have been recommended. If the ducts are not insulated to current code levels duct insulation should have been recommended		
Q000000019	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Distribution Systems: Hydronic	1	False			Missed opportunity to recommend insulating heating supply pipes in unconditioned space per BPI Heating Standards.	Hydronic heating system pipes in unconditioned spaces that are not insulated should have had pipe insulation specified		
Q000000022	HPwES; EmPower-HP; EmPower-ER	WQ	Smoke Detector	Contracted Smoke Detector Present	1	True	False	True		If the contract included installation of one or more CO detectors, verify that all have been installed.		
Q000000023	HPwES; EmPower-HP; EmPower-ER	WQ	Smoke Detector	Smoke Detector Installation	.5	False	False	False		Smoke Detector must be installed per manufacturer's specifications		
Q000000024	HPwES; EmPower-HP; EmPower-ER	WQ	Smoke Detector	Powered by Lithium battery	.5	False	False	False				
Q000000025	HPwES; EmPower-HP; EmPower-ER	WQ	Smoke Detector	Make and Model Program Approved	.5	False	False	False				
Q000000026	HPwES; EmPower-HP; EmPower-ER	WQ	CO Detector	Contracted CO Detector Present	1	True	False	True				
Q000000027	HPwES; EmPower-HP; EmPower-ER	WQ	CO Detector	Powered by Lithium Battery	.5	False	False	False				
Q000000028	HPwES; EmPower-HP; EmPower-ER	WQ	CO Detector	Meets Program Eligibility Requirements	.5	False	False	False		Employs an electro-chemical sensor		

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Q000000029	HPwES; EmPower-HP; EmPower-ER	WQ	CO Detector	CO Detector Installation	.5	False	False	False		CO Detector Installed Per Manufacturer's Requirements		
Q000000030	HPwES; EmPower-HP; EmPower-ER	WQ	Bathroom Faucet Aerator	Meets Program Requirements	.5	True	False	False		Installed aerator has the required gpm		
Q000000031	HPwES; EmPower-HP; EmPower-ER	WQ	Bathroom Faucet Aerator	Aerator Is Leak Free	.5	False	False	False				
Q000000032	HPwES; EmPower-HP; EmPower-ER	WQ	Bathroom Faucet Aerator	Aerator Finish is Unmarked	.5	False	False	False				
Q000000033	HPwES; EmPower-HP; EmPower-ER	WQ	Bathroom Faucet Aerator	Teflon Tape Neatly Installed	.5	False	False	False				
Q000000034	HPwES; EmPower-HP; EmPower-ER	WQ	Bathroom Faucet Aerator	Water Stream Straight	.5	False	False	False				
Q000000035	HPwES; EmPower-HP; EmPower-ER	WQ	Bathroom Faucet Aerator	Correct Quantity Installed	1	True	False	True		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q000000036	HPwES; EmPower-HP; EmPower-ER	WQ	Kitchen Faucet Aerator	Meets Program Requirements	.5	False	False	False		Installed aerator has the required gpm		
Q000000037	HPwES; EmPower-HP; EmPower-ER	WQ	Kitchen Faucet Aerator	Aerator Is Leak Free	.5	False	False	False				

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Q000000038	HPwES; EmPower-HP; EmPower-ER	WQ	Kitchen Faucet Aerator	Aerator Finish Is Unmarked	.5	False	False	False				
Q000000039	HPwES; EmPower-HP; EmPower-ER	WQ	Kitchen Faucet Aerator	Teflon Tape Neatly Installed	.5	False	False	False				
Q000000040	HPwES; EmPower-HP; EmPower-ER	WQ	Kitchen Faucet Aerator	Water Stream Straight	.5	False	False	False				
Q000000041	HPwES; EmPower-HP; EmPower-ER	WQ	Kitchen Faucet Aerator	Correct Quantity Installed	1	True	False	True		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q000000042	HPwES; EmPower-HP; EmPower-ER	WQ	LowFlow Showerhead	Meets Program Requirements	.5	False	False	False				
Q000000043	HPwES; EmPower-HP; EmPower-ER	WQ	LowFlow Showerhead	Showerhead Is Leak Free	.5	False	False	False				
Q000000044	HPwES; EmPower-HP; EmPower-ER	WQ	LowFlow Showerhead	Showerhead Finish Is Unmarked	.5	False	False	False				
Q000000045	HPwES; EmPower-HP; EmPower-ER	WQ	LowFlow Showerhead	Teflon Tape Neatly Installed	.5	False	False	False				
Q000000046	HPwES; EmPower-HP; EmPower-ER	WQ	LowFlow Showerhead	Water Stream Even	.5	False	False	False				

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Q000000047	HPwES; EmPower-HP; EmPower-ER	WQ	LowFlow Showerhead	Correct Quantity Installed	1	True	False	True		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q000000049	HPwES; EmPower-HP; EmPower-ER	WQ	CFL's	Installed Location is Appropriate	.5	False	False	False		CFLs must be matched to their location to perform properly. Exterior bulbs should be exterior rated and only dimmable bulbs in fixtures with dimmers		
Q000000050	HPwES; EmPower-HP; EmPower-ER	WQ	CFL's	CFL(s) Function Properly	.5	False	False	False		The bulb energizes and comes to its full brightness		
Q000000051	HPwES; EmPower-HP; EmPower-ER	WQ	CFL's	CFL(s) Equal Wattage Of Replaced Bulb	.5	False	False	False		The replacement bulb should be close in Lumens to the bulb that it replaces		
Q000000052	HPwES; EmPower-HP; EmPower-ER	WQ	CFL's	Meets Program Requirements	.5	False	False	False				
Q000000053	HPwES; EmPower-HP; EmPower-ER	WQ	CFL's	Approved Socket Extender Installed	.5	False	False	False		Only socket extenders that have been approved by the program should be installed		
Q000000054	HPwES; EmPower-HP; EmPower-ER	WQ	CFL's	Correct Quantity Installed	1	True	False	True		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q000000055	HPwES; EmPower-HP; EmPower-ER	WQ	Light Fixtures	Fixture Meets Rating Or Ballast Standards	1	False	False	False		Must be ENERGY STAR rated or must have an electronic ballast		

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Q000000056	HPwES; EmPower-HP; EmPower-ER	WQ	Light Fixtures	Fixture Not On A Dimmer	1	False	False	False				
Q000000057	HPwES; EmPower-HP; EmPower-ER	WQ	Light Fixtures	Correct Quantity Installed	1	True	False	True		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q000000058	HPwES; EmPower-HP; EmPower-ER	WQ	Fluorescent Torchieres	Replacement Torchiere Is ENERGY STAR Rated	1	False						
Q000000059	HPwES; EmPower-HP; EmPower-ER	WQ	Fluorescent Torchieres	Fixture Has Comparable Luminescence	.5	False	False	False				
Q000000060	HPwES; EmPower-HP; EmPower-ER	WQ	Fluorescent Torchieres	Dimmer Appropriate	.5	False	False	False		Circuit Not On A Dimmer Unless Lamp Is Rated For Dimmer		
Q000000061	HPwES; EmPower-HP; EmPower-ER	WQ	Fluorescent Torchieres	Existing Torchiere Disabled	.5	False	False	False		The contractor is required to dispose of the old bulb and cut the cord on the existing torchiere. He may leave it with the homeowner. If he did not, just mark this as NI.		
Q000000062	HPwES; EmPower-HP; EmPower-ER	WQ	Fluorescent Torchieres	Correct Quantity Installed	1	True	False	True		There should be the same number of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q000000063	HPwES; EmPower-HP; EmPower-ER	WQ	LED's	Installed Bulb(s) Are ENERGY STAR rated	1	False	False	False				

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Q00000065	HPwES; EmPower-HP; EmPower-ER	WQ	LED's	LED Location Appropriate	.5	False	False	False		LEDs should be installed in high use areas and should not be installed in closets, pantries, etc.		
Q00000066	HPwES; EmPower-HP; EmPower-ER	WQ	LED's	Night Light Replaced Incandescent Bulb	.5	False	False	False		Only existing night lights can be replaced		
Q00000067	HPwES; EmPower-HP; EmPower-ER	WQ	LED's	Night Light Functions	.5	False	False	False		The bulb energizes and comes to full brightness		
Q00000069	HPwES; EmPower-HP; EmPower-ER	WQ	LED's	Correct Quantity Installed	1	True	False	True		There should be the same number of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q00000070	HPwES; EmPower-HP; EmPower-ER	WQ	Programmable Thermostats	Installed Thermostat Has Been Programmed	2	False				The installed thermostat has been programmed and is running on the program. If it is not running on the program, the inspector should ask the customer whether they turned it off. If customer cannot remember whether they or someone else turned it off, rate this as 'Not Inspected.'		
Q00000071	HPwES; EmPower-HP; EmPower-ER	WQ	Programmable Thermostats	Fan-Only Switch Functions	.5	False	False	False		The thermostat should have a "fan only" switch that turns the fan on high speed without calling for heating or cooling. Verify that it works properly		
Q00000072	HPwES; EmPower-HP; EmPower-ER	WQ	Programmable Thermostats	Equipment Cycles In The Correct Order	.5	False	False	False		When equipment is turned on in heating mode, the inducer fan or power vent should turn on first, followed by the heat exchanger and finally blower fan		
Q00000073	HPwES; EmPower-HP; EmPower-ER	WQ	Programmable Thermostats	Surrounding Finish Returned To Original Condition	.5	False	False	False				

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Q000000074	HPwES; EmPower-HP; EmPower-ER	WQ	Programmable Thermostats	Correct Quantity Installed	1	True	False	True		There should be the same number and type of items installed as the contractor reported and invoiced for. If the numbers do not match, ask the customer if they removed any. If customer cannot remember whether they or someone else removed any, rate this as 'Not Inspected'		
Q000000075	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Tank Wrap Not Compressed	.5	False	False	False		Tank wrap should be installed tight enough not to sag but not so tight that the fiber glass is compressed which would reduce the R-value		
Q000000076	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Contracted Tank Wrap Installed	1	True	False	True		Tank wrap was installed and the r-value matches the contracted value	R-value of installed tank wrap is less than what contracted for	Tank wrap was not installed
Q000000077	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Seam Are Folded Neatly & Stapled At 2" Intervals	.5	False	False	False		When installing a tank wrap, the wrap should have enough excess material to neatly fold the seam over (hiding the fiber glass and completing the vapor retarder.) This seam should be kept straight and fastened every 2".		
Q000000078	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Tank Wrap Clear Of Heat Sources	1	True	False	False		The tank wrap should not be closer than 6" to any flue pipe or the air intake at the bottom of a fossil fuel water heater. The top of a fossil fuel water heater should not be insulated. If a fossil fuel tank is wrapped on top or wrapped within 2" of the air intakes at the water heater base		
Q000000079	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Electric Water Heater - Tank Wrap Installed on Top Of Tank Done Properly	.5	False	False	False		The top should be insulated and all seams and penetrations tightly sealed		
Q000000080	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Control Access Cut-out Done Properly	.5	False	False	False		The control panel must be exposed. It should be cut in an "I" pattern		
Q000000081	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Pressure Relief Cut-out Done Properly	.5	False	False	False		The tank wrap should not encompass the pressure relief valve or piping		

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Q00000082	HPwES; EmPower-HP; EmPower-ER	WQ	DHW Tank Wrap	Seams Sealed With Vinyl Tape	.5	False	False	False		The seams of the tank wrap should be sealed with the vinyl tape supplied in the tank wrap kit. No duct tape		
Q00000083	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Pipe Insulation	Billed Insulation Installed	1	True	False	True		Verified the full amount of pipe insulation was installed	Verified that at least 85% of pipe insulation was installed	Less than 85% of billed for pipe insulation was installed
Q00000084	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Pipe Insulation	Pipe Insulation Has Necessary Clearance To Heat Sources	1	True	False	False		Pipe insulation was installed more than 3" from double a wall vent or 6" from a single wall vent	N/A	Pipe insulation was installed less than 3" from a double wall vent or 6" from a single wall vent
Q00000085	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Pipe Insulation	Correct Material Used	.5	False	False	False		R-3 neoprene or closed cell foam		
Q00000086	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Pipe Insulation	Elbows Mitered Neatly	.5	False	False	False		Elbows should be cut at 45 degree angles and fitted together to minimize gaps at elbows		
Q00000087	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Pipe Insulation	T Connections Cut Properly	.5	False	False	False		T connections should have the main branch notch as small as possible and still accommodate the intersecting pipe. The intersecting pipe insulation should have the end cut in a "V" pattern and pushed into place to minimize gaps at T connections		
Q00000088	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Pipe Insulation	Insulation Fastened Securely	.5	False	False	False		Zip ties installed at least every 12" and within 2" of the end of any piece.	Zip ties installed but the spacing is such that the pipe insulation has minor gaps resulting in exposed pipe	No zip ties were installed and/or unacceptable materials were used to secure the pipe insulation (i.e. duct tape)
Q00000089	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Pipe Insulation	Seams Are On Bottom Of Pipe	.5	False	False	False		Gravity will help keep the seams closed		
Q00000091	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Temperature Setback	Hot Water Temperature Is Set For Approximately 120 Degrees	1	False						

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Q00000092	HPwES; EmPower-HP; EmPower-ER	WQ	Hot Water Temperature Setback	Homeowner Was Instructed How To Set Temperature To Original Setting	1	False	False	False		Verify with the homeowner. If the homeowner cannot recall, the task should be rated as Not Inspected		
Q00000093	HPwES; EmPower-HP; EmPower-ER	WQ	Moveable Window Insulation	Installed Panel Is R-3 Or Greater	1	False	False	False		Panel should have documentation showing it is R-3 or has a U-factor of .33 or less		
Q00000094	HPwES; EmPower-HP; EmPower-ER	WQ	Moveable Window Insulation	Panel Securely Fastened To Interior Finish	.5	False	False	False				
Q00000095	HPwES; EmPower-HP; EmPower-ER	WQ	Moveable Window Insulation	Fastening System Allows For Easy Removal	.5	False	False	False		Window insulation should be screwed or clipped in place rather than nailed or glued		
Q00000096	HPwES; EmPower-HP; EmPower-ER	WQ	Moveable Window Insulation	Panel Is Gasketed And Appears To Be Air Tight	.5	False	False	False		Where panel meets interior finish there should be a gasket that is fully engaged around the panel and compressed		
Q00000097	HPwES; EmPower-HP; EmPower-ER	WQ	Moveable Window Insulation	Correct Number Of Windows Treated	1	True	False	True				
Q00000098	HPwES; EmPower-HP; EmPower-ER	WQ	Motion Sensor Timer	Motion Sensor Timer Installed As Contracted	2	True	False	True				
Q00000099	HPwES; EmPower-HP; EmPower-ER	WQ	Motion Sensor Timer	Motion Sensor Functions Properly	1	False						
Q00000102	HPwES; EmPower-HP	WQ	Attic Air Sealing	Top Plates Sealed	2	False	False	False		If contracted, balloon framed top plates should have an approved backer securely fastened or friction fit and all edges sealed with 1 or 2-part foam. Platform framing top plates should have had all debris moved away from seam between top plate and drywall and a continuous bead of 1-part foam applied along all the seams. If 2-part foam is used there should be only foam and drywall visible when finished		

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Q00000103	HPwES; EmPower-HP	WQ	Attic Air Sealing	Knee Wall Transition Sealed	2	False	False	False		If contracted, the knee wall transition area should be sealed with an approved backer that is either mechanically fastened into place or friction fit. The seams and edges between the backer and the surrounding framing and sheathing should be sealed with 1 or 2-part foam. Inaccessible knee wall transitions should be sealed using dense pack insulation installed to a density of at least 3.5 lbs/cuft.		
Q00000104	HPwES; EmPower-HP	WQ	Attic Air Sealing	Plumbing Wet Walls Sealed	2	False	False	False		If contracted, plumbing wet walls are sealed including vent penetration		
Q00000105	HPwES; EmPower-HP	WQ	Attic Air Sealing	Chimney Penetrations Sealed	2	False	False	False		If contracted, the gap surrounding combustion venting flues must be bridged with fire proof materials for a distance of 3 inches from masonry chimneys and double wall vents and 6 inches to single wall flue pipe. This backer must over lap the edge of the opening by at least an inch and be securely fastened with an approved fastener. Sealants within these clearances must be high temperature sealants that are approved for the fuel the appliance utilizing the chimney uses.		
Q00000106	HPwES; EmPower-HP	WQ	Attic Air Sealing	Recessed Lights Covered/Sealed	2	False	False	False		If contracted, unless a recessed light is an ICAT (Insulation Contact Air Tight) there will be air leakage through this fixture. An airtight box will need to be built that maintains a clearance of at least 3 inches to any part of the light fixture. The sides of the box can be made of any rigid, air barrier material. For non-IC rated lights the top of the box must have an R-value of .5 or less and be vapor permeable. Boxes for non-IC rated lights cannot be insulated over. For IC rated lights the top of the box should be vapor permeable and this box can be insulated over.		

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Q000000107	HPwES; EmPower-HP	WQ	Attic Air Sealing	Attic Access(s) Sealed	2	False	False	False	Work scope provided for attic door insulation. Attic door insulation does not meet BPI standards for R-value. Insulate attic door to R-14. BPI Standards state: All attic access openings, including doors, hatches, and pull-down stairs shall have a tightly fitting cover which is insulated to a minimum R-14.	If contracted, attic access is insulated with an R-value of R-14 or greater. • All gaps around attic hatch sealed. If attic access is functional, hatch is weather-stripped in a manner that that allows no more than 2" of air leakage area between the conditioned space and the attic when a blower door is running @CFM50		
Q000000108	HPwES; EmPower-HP	WQ	Attic Air Sealing	Drop Ceilings And Soffits Sealed	2	False	False	False		If contracted, dropped ceiling/soffit areas should be bridged with an approved backer that is supported appropriately or at a minimum every 24 inches. The backer should lap the edges of the opening at least an inch to allow for secure fastening with approved fasteners at specified intervals. All edges and seams should be sealed with an approved sealant.		
Q000000109	HPwES; EmPower-HP	WQ	Attic Air Sealing	Open Mechanical Chases Sealed	2	False	False	False		If contracted, large chases that allow mechanicals to pass from the conditioned space to the attic should be bridged by an approved backer. This backer should be adequately supported at a minimum of every 24 inches. The backer should overlap the chase it spans by at least one inch and be fastened securely with an approved fastener. The perimeter and seams of the backer as well as any penetrations should be well sealed with 1-part foam.		
Q000000110	HPwES; EmPower-HP	WQ	Attic Air Sealing	Bath Fans Sealed	2	False	False	False		If contracted, all on-fan perforations & knockouts and areas around unit are sealed		
Q000000111	HPwES; EmPower-HP	WQ	Attic Insulation	Continuous Air Barrier Present	1	False				The air barrier must be continuous before insulating the attic space		
Q000000112	HPwES; EmPower-HP	WQ	Attic Insulation	Specified R-Value And Quantity Installed	2	False	True	True	Contractor invoiced the Program for (Location of insulation). Installed (Location of insulation) insulation volume is less than contracted amount by more than 20%. Add additional insulation to match contract or reimburse the Program the cost of missing insulation.	At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable	Less than 90% but more than 80% of insulation was installed	Less than 80% of billed insulation was installed

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000113	HPwES; EmPower-HP	WQ	Attic Insulation	Specified Material Type Installed	1	False	True	True		Installed material matches contract	N/A	Installed material is different than what was contracted for
Q000000114	HPwES; EmPower-HP	WQ	Attic Insulation	Installation Quality	2	False	False	True		All applicable areas insulated. Blown insulation must be level. Batt insulation must be installed across joists with no air space between layers. Enclosed spaces must be filled.		
Q000000115	HPwES; EmPower-HP	WQ	Attic Insulation	Heat Source(s) Dammed	1	True	False	False				
Q000000116	HPwES; EmPower-HP	WQ	Attic Insulation	Mechanical Systems dammed	1	True	False	True				
Q000000117	HPwES; EmPower-HP	WQ	Attic Insulation	Access Treated as Specified	1	True	False	True				
Q000000118	HPwES; EmPower-HP	WQ	Attic Insulation	Wind Baffles Installed	1	True	False	True		The soffits have been baffled using one inch Thermax rigid foam that has been friction fit at the back edge of the exterior wall top plate. There is at least one inch of clearance between the top of the baffle and the roof sheathing. The edges have been sealed tightly using 1-part foam and the top of the baffle extends four inches above the level of the blown insulation.		
Q000000119	HPwES; EmPower-HP	WQ	Attic Insulation	Vent Chutes Properly Installed	1	True	False	True		Pre-fab styrene foam vent chutes have been installed every four bays along a continuous soffit vent on the front and back of a house. The area below the vent chute has been made air tight with a fiberglass backer and 2-part foam flash over. The vent chutes have been mechanically fastened to the roof sheathing with 1/2 inch staples every 6 inches. The bays without vent chutes have been dammed with a fiberglass backer and 2-part foam flash over.		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000120	HPwES; EmPower-HP	WQ	Attic Insulation	Storage Area Dammed and Clean	1	False	False	True		If contracted, the storage platform should have a 2x8 frame with band closure at ends nailed with 16d nails, 2x8 frame secured to existing joists at right angles with 8d common nails. Top should be floored with 1/2", CDX plywood secured using 1" drywall screws. Framing should be 16" on center, S-DRY #2 or better spruce or hemlock.	If contracted, the storage platform and damming does not conform with the MIG technical specifications but generally meets the intent of the requirement.	The storage platform and damming installed does not perform as intended.
Q000000121	HPwES; EmPower-HP	WQ	Attic Insulation	Exhaust Fans Vented Properly	1	True	False	True		If contracted, bathroom vent fans connected with an insulated hose to an approved termination outside of the attic per contract. N/A if not contracted for.		
Q000000122	HPwES; EmPower-HP	WQ	Attic Insulation	Attic Venting Installed Properly	1	False	False	True		Correct amount installed and was installed properly (i.e. no leaks, no straddling rafters, etc.		
Q000000123	HPwES; EmPower-HP	WQ	Attic Insulation	Densepack Insulation	2	False	True	True		Dense packed insulation shall be installed at a minimum of 3.5 lbs/cu. Ft. for cellulose and 2.2 lbs/cu. Ft for blown fiber that is manufactured for densepack installation	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 3.2 lbs/cu. Ft. but more than 2.8	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 2.8 lbs/cu. Ft. If core sampling was not done but probing in multiple areas indicated it was loosely blown, it is a fail
Q000000124	HPwES; EmPower-HP	WQ	Attic Insulation	No Air Leakage Paths	2	False				This would indicate if a full cavity was insulated. Loose filled cavities would reveal air leakage path ways		
Q000000125	HPwES; EmPower-HP	WQ	Attic Insulation	Site Restored to Tidy Condition	1	False						
Q000000126	HPwES; EmPower-HP	WQ	Wall Insulation	Specified R-Value And Quantity Installed	2	False	True	True		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable	Less than 90% but more than 80% of insulation was installed	Less than 80% of billed insulation was installed
Q000000127	HPwES; EmPower-HP	WQ	Wall Insulation	Specified Material Type Installed	1	False	True	True		Installed material type matches contract		Installed material is different than what was contracted for
Q000000130	HPwES; EmPower-HP	WQ	Wall Insulation	No Air Leakage Paths	1	False	False	False		IR scans indicate little to no air leakage path ways		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000131	HPwES; EmPower-HP	WQ	Wall Insulation	Densepack Insulation	1	False	True	True		Dense packed insulation shall be installed at a minimum of 3.5 lbs/cu. Ft. for cellulose and 2.2 lbs/cu. Ft for blown fiber that is manufactured for densepack installation	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 3.2 lbs/cu. Ft. but more than 2.8	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 2.8 lbs/cu. Ft. If core sampling was not done but probing in multiple areas indicated it was loosely blown.
Q000000132	HPwES; EmPower-HP	WQ	Wall Insulation	Drill Holes Patched Properly	1	False	False	True		The exterior walls of a home are sided with exterior grade plywood type siding and have been filled with dense pack insulation using a drill and plug installation method. A blower door and IR scan indicate no air movement through the walls, the drill holes are cleanly cut and have been re-sealed neatly with an approved sealant and the holes were drilled in a level line across the wall areas.		
Q000000133	HPwES; EmPower-HP	WQ	Wall Insulation	Drainage Plane Repaired	1	False	False	True		Water stains can be seen on the interior walls below where a bay window bumps out. A closer inspection of the exterior shows that the roof wall junction has been recently re-flashed and the homeowner verifies that the water stains are pre-installation.		
Q000000134	HPwES; EmPower-HP	WQ	Wall Insulation	Cladding/Sheathing Properly Repaired	1	False	False	True		An inspection of the seams on the aluminum or vinyl siding show that all the seam are interlocked. Pulling on the siding shows the siding is firmly attached to the building but can move side to side about an inch. None of the siding is dented or damaged. The single nailed asbestos siding has been re-installed using 5 penny galvanized box nails. There are no damaged pieces. The siding is straight and firmly attached to the building.		
Q000000135	HPwES; EmPower-HP	WQ	Wall Insulation	Site Restored to Original Condition	1	False						
Q000000136	HPwES; EmPower-HP	WQ	Wall Insulation	Band Joist Insulated	1	False						

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000137	HPwES; EmPower-HP	WQ	Basement Air Sealing	Plumbing Penetrations Sealed	1	False				Plumbing penetrations can be sealed based on their size. Gaps less than 1/4 inch can be sealed with caulk. Gaps between a 1/4 inch and 1 inch can be sealed with 1-part foam and gaps greater than 1 inch should be sealed with a moisture resistant backer and caulk or foam.		
Q000000138	HPwES; EmPower-HP	WQ	Basement Air Sealing	Wiring Penetrations Sealed	1	False				Small openings such as wire penetrations that are less than 1 inch in diameter can be sealed using either fire rated caulk or fire block foam.		
Q000000139	HPwES; EmPower-HP	WQ	Basement Air Sealing	Chimney Chases Sealed	2	False				Must use fire proof materials and methods		
Q000000140	HPwES; EmPower-HP	WQ	Basement Air Sealing	Mechanical Chases Sealed	2	False				Large openings between the basement and the 1st floor should be sealed using moisture and fire resistant materials. The gap should be overlapped by at least one inch and securely fastened with approved fasteners at specified spans. The edges and seams should be sealed with caulk or 1-part foam.		
Q000000142	HPwES; EmPower-HP	WQ	Basement Air Sealing	Basement Access Sealed	1	False						
Q000000143	HPwES; EmPower-HP	WQ	Basement Air Sealing	Ground Cover Installed	2	False						
Q000000144	HPwES; EmPower-HP	WQ	Basement Air Sealing	Ground Cover Sealed	1	False						
Q000000145	HPwES; EmPower-HP	WQ	Basement Air Sealing	Windows Sealed	1	False				Basement windows that have gaps between the window frame and the surrounding framing should be sealed using an approved backer (if necessary) and sealant.		
Q000000146	HPwES; EmPower-HP	WQ	Basement Air Sealing	Air Barrier Properly Installed on Underside of Floor Framing	1	False						
Q000000147	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Specified R-Value And Quantity Installed	2	False	True	True		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable	Less than 90% but more than 80% of insulation was installed	Less than 80% of billed insulation was installed

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000148	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Specified Material Type Installed	1	False	True	True		Installed insulation type matches contract		Installed insulation type does not match the contract
Q000000150	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	No Gaps, Voids or Compression	1	False						
Q000000151	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Insulation Contact Warm Surface	2	False				Insulation should be touching the floor it is keeping warm. No gaps between the insulation and the floor sheathing		
Q000000152	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Vapor Retarder on Correct Surface	2	False	False	True		Vapor retarder should be against the building surface exposed to warmer conditions for the majority of the year		
Q000000153	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Insulation Adequately Supported	1	False				Must have adequate support, using wire, rods Tyvek, etc.		
Q000000154	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Rigid Board Insulation is Continuous Without Gaps or Voids	2	False				This includes sealed seams and edges, as well as properly covering exposed edges of foil-faced and FSK board with foil tape. (not required on extruded polystyrene)		
Q000000155	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Densepack Insulation	2	True	False	True		Dense packed insulation shall be installed at a minimum of 3.5 lbs/cu. Ft. for cellulose and 2.2 lbs/cu. Ft for blown fiber that is manufactured for densepack installation. An IR scan with a blower door indicates no significant leakage pathways and/or no significant gaps.	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 3.2 lbs/cu. Ft. but more than 2.8	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 2.8 lbs/cu. Ft. If core sampling was not done but probing in multiple areas indicated it was loosely blown
Q000000156	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Densepack Insulation: Sheathing Properly Repaired	1	False				Wood plugs in wood surfaces or plugs placed in rigid insulation board		
Q000000157	HPwES; EmPower-HP	WQ	Basement Ceiling Insulation	Site Restored to Original Condition	1	False						
Q000000158	HPwES; EmPower-HP	WQ	Basement Wall insulation	Specified R-Value And Quantity Installed	2	False	True	True		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable	Less than 90% but more than 80% of insulation was installed	Less than 80% of billed insulation was installed
Q000000159	HPwES; EmPower-HP	WQ	Basement Wall insulation	Specified Material Installed	1	False	True	True		Installed insulation type matches contract		Installed insulation type does not match contract
Q000000160	HPwES; EmPower-HP	WQ	Basement Wall insulation	Insulation Is Continuous Without Gaps or Voids	1	False	False	False				

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000161	HPwES; EmPower-HP	WQ	Basement Wall insulation	Seams in Rigid board Insulation are properly sealed	1	False	False	False		Seams should be sealed with 1-part foam or siliconized caulk		
Q000000162	HPwES; EmPower-HP	WQ	Basement Wall insulation	Wall Assembly Meets Program Required R-Values	1	False	False	False				
Q000000163	HPwES; EmPower-HP	WQ	Basement Wall insulation	Rigid Board Attached Properly	1	False	False	False		Rigid board insulation must be securely connected to concrete walls with approved fasteners that are properly spaced		
Q000000164	HPwES; EmPower-HP	WQ	Basement Wall insulation	Thermal Boundary Between Rim Joist and Basement is Continuous	2	False				The insulation and air barrier material used on the rim and band areas must be connected to the insulation and air barrier used on the foundation wall		
Q000000167	HPwES; EmPower-HP	WQ	Basement Wall insulation	Exposed Rigid Foam Board or Spray Foam Has a Thermal Barrier	2	False	False	False				
Q000000168	HPwES; EmPower-HP	WQ	Basement Wall insulation	Spray Foam Insulation Is Closed Cell	1	False	False	False		Foam must be high density, and water resistant below grade		
Q000000169	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Baseboards Caulked	1	False				Any measure that is visible or used by a customer should have been approved by with the customer before installation. If customer cannot remember whether they were asked or were not present during the installation, rate this as 'Not Inspected.'		
Q000000170	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Window and Door Trim Caulked	1	False				Any measure that is visible or used by a customer should have been approved by with the customer before installation. If customer cannot remember whether they were asked or were not present during the installation, rate this as 'Not Inspected.'		
Q000000171	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Plumbing Penetration Sealed	1	False						
Q000000172	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Boots Sealed to Interior Material	1	False				The register should be removed and the boot sealed to the surrounding air barrier		
Q000000173	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Interior Sheathing Voids Repaired	1	False				Use a compatible material that can be finished by the homeowner		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000174	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Exterior Doors Swept and Weather stripped	1	False				Doors to the exterior can be weather stripped and swept at the customers request. Doors to the garage should always be weather stripped and swept. Weather stripping should be permanently attached, allow the door to still function as intended and remain flexible in cold weather.		
Q000000175	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Doors to Attached Garage Weather stripped	1	False				Doors to the exterior can be weather stripped and swept at the customers request. Doors to the garage should always be weather stripped and swept. Weather stripping should be permanently attached, allow the door to still function as intended and remain flexible in cold weather.		
Q000000176	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Windows Weather Stripped	1	False				All weather-stripping should be permanently installed with fasteners (tacks, staples, brads, etc.) and should make positive contact between surfaces to prevent air leakage. The weather-stripping should form an airtight seal when the window is closed and latched. A small bead of caulk should be applied as necessary to prevent air leakage behind the weather-stripping.		
Q000000177	HPwES; EmPower-HP	AQ	Duct Sealing	Sealant Material Was Appropriate	2	False				Materials used were UL181B-FX or UL181A-M listed		
Q000000178	HPwES; EmPower-HP	AQ	Duct Sealing	All Field Seams Sealed	1	False			Install nickel thick layer of duct mastic on all accessible duct seams per BPI and MIG standards. The QA inspector found missed seams, and installed mastic too thinly applied.	Nickel thick layer of mastic around the entire seam or mastic backed tape		
Q000000179	HPwES; EmPower-HP	AQ	Duct Sealing	All Manufacturer's Seams Sealed	1	False			Install nickel thick layer of duct mastic on all accessible duct seams per BPI and MIG standards. The QA inspector found missed seams, and installed mastic too thinly applied.	Nickel thick layer of mastic around the entire seam or mastic backed tape		
Q000000180	HPwES; EmPower-HP	AQ	Duct Sealing	Filter Slot Treated	1	False				A gasketed door or panel that is permanent may act as a filter slot cover		
Q000000181	HPwES; EmPower-HP	AQ	Duct Sealing	Boots Sealed to Interior Material	1	False						

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000182	HPwES; EmPower-HP	AQ	Duct Sealing	Air Handler Sealed	1	False				The cabinet's non-opening panels sealed with 100% silicone caulk. Removable panels for servicing sealed with duct tape (not mastic backed tape).		
Q000000183	HPwES; EmPower-HP	AQ	Duct Sealing	Furnace Box Sealed Beneath (at Ground Level)	1	False				Air handler cabinets which do not have "bottoms" should be sealed at their connection to the substrate or a fireproof material should be fastened and air sealed.		
Q000000184	HPwES	AQ	Duct Insulation	Correct R-Value And Amount Installed	2	True	False	True		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable	Less than 90% but more than 80% of insulation was installed	Less than 80% of billed insulation was installed
Q000000185	HPwES	AQ	Duct Insulation	Insulation Not Compressed	1	False	False	False		Insulation should not sag, but should not be pulled so tight it is compressed		
Q000000186	HPwES	AQ	Duct Insulation	Seams Stapled Securely	1	False	False	False		Excess material should be left when the insulation is cut. This excess should be folded neatly at the seams to hide the fiberglass and complete the vapor barrier. The seams should be stapled every 2" with a cinch stapler		
Q000000187	HPwES	AQ	Duct Insulation	Vapor Retarder Continuous	1	False				Once the seams are folded and stapled securely the seam should be sealed with vinyl tape to complete the vapor barrier. This is especially crucial with AC.		
Q000000188	HPwES	AQ	Duct Insulation	Vapor Retarder Sealed With Vinyl Tape	1	False						
Q000000189	HPwES; EmPower-HP	WQ	Replacement Doors & Windows	Correct Quantity Installed	1	False	True	True			N/A	
Q000000190	HPwES; EmPower-HP	WQ	Replacement Doors & Windows	Correct U-Factor & SHGC Installed	2	True	False	True		The U-factor and SHGC on the NFRC sticker should be equal to the window specified on the approved contract		
Q000000191	HPwES; EmPower-HP	WQ	Replacement Doors & Windows	Window(s) Function Properly	3	True	False	True		The window should open, close, tilt-in etc smoothly and easily. When closed and locked the meeting points of the window should be even and square. Blower door testing indicates that the windows have little to no air leakage.		The windows do not function properly and/or there is significant air leakage.

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000192	HPwES; EmPower-HP	WQ	Replacement Doors & Windows	Window Perimeter Sealed & Insulated	1	False				The rough opening around the window should be air sealed and insulated with an air impervious material such as 1-part foam. If the windows are already trimmed at inspection, this can be verified by spot checking or asking the installer to take photos during installation. Other wise it would be rated as N/I.		
Q000000194	HPwES; EmPower-HP	WQ	Replacement Doors & Windows	Exterior Finish Restored	1	False	False	True		The exterior siding and trim has been replaced and repaired to the extent that it is indistinguishable from the surrounding finish.		
Q000000195	HPwES; EmPower-HP	WQ	Replacement Doors & Windows	Interior Finish Restored	1	False	False	True		The exterior siding and trim has been replaced and repaired to the extent that it is indistinguishable from the surrounding finish.		
Q000000197	HPwES	WQ	Duct Testing	BPI Distribution Efficiency Look-Up Table	3	False				Program contractors are encouraged to use the Look-up table method whenever duct system improvements are being performed and the lesser of 10 feet or 10% of total ductwork in the vicinity of the air handler will be affected (Greater than 10 feet or 10% of ductwork affected, a ductblaster or Delta Q test is required.)		
Q000000198	HPwES	WQ	Duct Testing	Test-Out Numbers Are Accurate	3	False				Contractor's Post-Test results must be within 10% of Inspector's Post-Test		
Q000000199	HPwES	WQ	Duct Testing	Delta Q	3	False						
Q000000200	HPwES	WQ	Duct Testing	Leakage is less than or equal to 10% system airflow on test out	3	False				This is based on a TDL – Total Duct Leakage test using a duct blaster. To calculate this value, multiply the system airflow by 0.1. If measured TDL is less than this product, then the system passes this BPI standard.		
Q000000201	HPwES; EmPower-HP	WQ	Blower Door Testing	Blower Door Test Results Are Accurate	3	True	False	False		Blower door results were submitted by the contractor and are within 10% of the inspector's numbers.	Blower door results were submitted by the contractor but are off by more than 10% but less than 20% from the inspector's numbers.	Blower door results were submitted by the contractor but are off by more than 20% from the inspector's numbers.

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000202	HPwES; EmPower-HP	WQ	Blower Door Testing	Building Airflow Standard Acceptable	3	True	False	False		Post-test results are above 70% of BAS		Post-test results are below 70% of BAS and no mechanical ventilation exists.
Q00000233		AQ	Air Conditioning System Replacement	Refrigerant vapor line - Refrigerant vapor line insulated and vapor sealed	1	False						
Q00000234		AQ	Air Conditioning System Replacement	Refrigerant line- Refrigerant line is adequately supported	1	False						
Q00000235		AQ	Air Conditioning System Replacement	Condensate line- Condensate line properly pitched and insulated if necessary	1	False						
Q00000236		AQ	Air Conditioning System Replacement	Condensate pans/pumps triggered - Condensate pans without secondary drains or that have condensate pumps should have cutoff switches triggered by water level in pan or pump malfunction	1	False						
Q00000237		AQ	Air Conditioning System Replacement	Drip pan - Indoor equipment has a drip pan that extends under entire unit	1	False						
Q00000238		AQ	Air Conditioning System Replacement	Outdoor equipment is installed on level concrete pad or equivalent	1	False						
Q00000239		AQ	Air Conditioning System Replacement	TXV Refrigerant metering device - Indoor and outdoor equipment has TXV refrigerant metering device	1	False						
Q00000240		AQ	Air Conditioning System Replacement	Dismantling of parts - Service access does not require dismantling of permanent parts of system	1	False						
Q00000241		AQ	Air Conditioning System Replacement	Unique Duct System - Each system has its' own unique duct system	1	False						

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000242		AQ	Air Conditioning System Replacement	Information with Homeowner - Contractor contact information, startup date a fixed to indoor unit. Operating manual and warranties with homeowner	1	False						
Q000000243		AQ	Air Conditioning System Replacement	Material Removed - All materials from existing system were removed and the site returned to tidy condition	1	False						
Q000000254	HPwES; EmPower-HP	WQ	Solar DHW Heater	Water Storage Tank is ENERGY STAR Rated	1	False	False	False		Meets or exceeds Program requirement		
Q000000255	HPwES; EmPower-HP	WQ	Solar DHW Heater	Outdoor Materials Are UV Resistant	1	False	False	False		Materials used outdoors must be able to resist UV damage and listed for outdoor use		
Q000000256	HPwES; EmPower-HP	WQ	Solar DHW Heater	Appropriate Fasteners Used	1	False	False	False		Fasteners used to hold collectors in place are stainless steel, and coated with anti-seize lubricant		
Q000000257	HPwES; EmPower-HP	WQ	Solar DHW Heater	Structural Components Are Of An Approved Material	1	False	False	False				
Q000000258	HPwES; EmPower-HP	WQ	Solar DHW Heater	Piping Is Of Approved Material	1	False	False	False				
Q000000259	HPwES; EmPower-HP	WQ	Solar DHW Heater	All System Components Are New	1	False	False	False				
Q000000260	HPwES; EmPower-HP	WQ	Solar DHW Heater	Building Penetrations Sealed Appropriately	1	False	False	False				
Q000000261	HPwES; EmPower-HP	WQ	Solar DHW Heater	Roof Appears To Have a Minimum of 10 Years Life Left	1	False	False	False				
Q000000262	HPwES; EmPower-HP	WQ	Solar DHW Heater	Roof Mounted Collector Has Proper Clearance	1	False	False	False				
Q000000263	HPwES; EmPower-HP; EmPower-ER	WQ	Boiler Reset Control	Boiler Is In Good Working Condition	1	False	False	False				

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000264	HPwES; EmPower-HP;EmPower-ER	WQ	Boiler Reset Control	Boiler SSE 75% Or Greater	1	False	False	False				
Q000000265	HPwES; EmPower-HP;EmPower-ER	WQ	Boiler Reset Control	Venting System Is In Good Working Order	1	False	False	False				
Q000000267	HPwES; EmPower-HP;EmPower-ER	WQ	Boiler Reset Control	No Tankless Coil Present	1	False	False	False				
Q000000268	HPwES; EmPower-HP;EmPower-ER	WQ	Boiler Reset Control	Programmable thermostats setback temp less than 5 degrees	1	False						
Q000000269	HPwES; EmPower-HP;EmPower-ER	WQ	Boiler Reset Control	Manufacturer Warranty Left With Customer	1	False	False	False				
Q000000270	HPwES; EmPower-HP;EmPower-ER	WQ	Timer – Electric DHW Tank	Meter is Time of Use or Peak On/Off Rates	1	False	False	False				
Q000000271	HPwES; EmPower-HP;EmPower-ER	WQ	Timer – Electric DHW Tank	Hot Water Tank Is 80 Gallons Or More	1	False	False	False				
Q000000272	HPwES; EmPower-HP;EmPower-ER	WQ	Timer – Electric DHW Tank	Battery Backup Installed	1	False	False	False				
Q000000274	HPwES; EmPower-HP;EmPower-ER	WQ	Room A/C	Contracted AC Unit Installed	2	False	True	True		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, clothes washer was not installed.
Q000000275	HPwES; EmPower-HP;EmPower-ER	WQ	Room A/C	Installed Unit Is ENERGY STAR	1	True	False	True				

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000276	HPwES; EmPower-HP; EmPower-ER	WQ	Room A/C	Unit Installed Securely	1	False	False	False		Unit is secured in the window according to manufacturer's installation specifications		
Q000000277	HPwES; EmPower-HP	WQ	Clothes Washer	Contracted Clothes Washer Unit Installed	2	False	True	True		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, clothes washer was not installed.
Q000000278	HPwES; EmPower-HP	WQ	Clothes Washer	Installed unit is ENERGY STAR	1	True	False	True				
Q000000279	HPwES; EmPower-HP	WQ	Clothes Washer	Hose connections - Hose connections are secure and show no signs of leaking	1	False						
Q000000280	HPwES; EmPower-HP	WQ	Clothes Washer	Machine sits evenly on floor and shows no sign of rocking	1	False						
Q000000281	HPwES; EmPower-HP; EmPower-ER	WQ	Dryer	Moisture Sensor Control	1	False	False	False		A moisture sensor control is present		
Q000000282	HPwES; EmPower-HP; EmPower-ER	WQ	Dryer	Vent Installation Acceptable	1	False	False	True		Dryer vents must be installed in a manner that allows air to flow freely through it.		The installed vent has one or more issues that will restrict proper airflow. Tears, crushed material, sharp bends, unusually long vent runs, etc
Q000000283	HPwES; EmPower-HP; EmPower-ER	WQ	Dryer	Code-Compliant Vent	1	True				Solid vent pipe with minimal flexible metal were installed		Vinyl (including foil faced flex vents were used on gas fired dryers
Q000000284	HPwES; EmPower-HP; EmPower-ER	WQ	Dryer	Passes CAZ and CO Testing	1	False				Dryer location max depressurization is -15 and CO levels are acceptable		
Q000000285	HPwES; EmPower-HP; EmPower-ER	WQ	Dryer	Contracted Dryer Unit Installed	2	False	True	True		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, no dryer was installed.
Q000000286	HPwES; EmPower-HP	WQ	Dehumidifier	Contracted Dehumidifier Unit Installed	1	False	True	True		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, no dehumidifier was installed.

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000287	HPwES; EmPower-HP	WQ	Dehumidifier	Installed Unit Is ENERGY STAR	2	True	False	True				
Q000000288	HPwES	WQ	Dishwasher	Contracted Dishwasher Unit Installed	2	False	True	True		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, dishwasher was not installed.
Q000000289	HPwES	WQ	Dishwasher	Installed Unit Is ENERGY STAR	1	True	False	True				
Q000000290	HPwES; EmPower-HP; EmPower-ER	WQ	Timers for Appliances	Contracted Timer(s) Installed	1	False	True	True		Timers should have been installed on appliances that the home owner indicated stayed on even when no one was using them. (TV, computer, DVD player)		
Q000000291	HPwES; EmPower-HP; EmPower-ER	WQ	Timers for Appliances	Make and Model Number Match Contractor Invoice	1	True	False	True		The make and model number of the installed equipment match the approved contract		
Q000000292	HPwES; EmPower-HP; EmPower-ER	WQ	Fridge and Freezer	Contracted Fridge or Freezer Unit Installed	2	False	True	True		The make and model number of the installed equipment match the approved contract	Make and model don't match contract but are same EF ratings	Installed equipment does not match contract and a lesser EF rated system was installed. Or, refrigerator or freezer unit not installed.
Q000000293	HPwES; EmPower-HP; EmPower-ER	WQ	Fridge and Freezer	Installed Unit Is ENERGY STAR	2	True	False	True				
Q000000299	HPwES; EmPower-HP	WQ	Well Pump Repair	Repairs Completed Per Contract	2	False	True	True		All repairs were completed as per the contractor's invoice		
Q000000300	HPwES; EmPower-HP	WQ	Well Pump Repair	Well Pump Runs Correctly	2	True	False	True		The well pump should not run continuously.		The pump runs continuously.
Q000000302	HPwES; EmPower-HP	HS	Roadblocks	Friable PACM	2	True	False	False		Contractor did not depressurize home using Blower Door or conduct Air Sealing in areas containing friable PACM that was in poor condition and at risk of becoming airborne.		Contractor depressurized the home using a Blower Door and/or conducted Air Sealing in areas that contained friable PACM that was in poor condition and at risk of becoming airborne.

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000303	HPwES; EmPower-HP	HS	Roadblocks	Mold like substance - Greater Than 10 Square Feet	2	True	False	False		Contractor did not depressurize home using Blower Door or conduct Air Sealing in areas containing mold like substance		Mold like substance exists and the contractor conducted a blower door test and/or completed air sealing in the areas containing mold like substance.
Q00000305	HPwES; EmPower-HP	HS	Roadblocks	Knob & Tube Wiring	1	True	False	False		Knob and tube wiring has been either removed or permanently de-activated wherever insulation was completed		
Q00000306	HPwES; EmPower-HP	HS	Roadblocks	Moisture Mitigated Properly	1	True	False	False		Contractor identified all sources of moisture problems, and source mitigation or necessary repairs performed		
Q00000309	HPwES; EmPower-HP	AQ	Visual Inspection	Correct Fuel Identified	1	False						
Q00000310	HPwES; EmPower-HP	AQ	Visual Inspection	Located All Combustion Appliance Zones	1	False				All equipment was tested and the depressurization set up accurately defined the Combustion Appliance Zone		
Q00000311	HPwES; EmPower-HP	AQ	Visual Inspection	Correct Venting Type Identified	2	False						
Q00000312	HPwES; EmPower-HP	AQ	Visual Inspection	CAZ and Appliances Related Safety Issues Identified	1	True	False	True		Contractor should have identified and recommended a fix for any CAZ and Appliance related safety issues, including, detached or corroded flue pipes or problems with size or pitch, problems with DHW relief valve, broken or kinked oil lines, water leakage, open returns, no air filter, etc	The Contractor did not identify or recommend a fix for all CAZ and Appliance related safety issues	The house is in imminent danger of exploding or fire and/or the ambient CO is not elevated due to the the CAZ and/or Appliance related H&S issue not identified/fix
Q00000313	HPwES; EmPower-HP	AQ	Testing Inspection	Gas Leak Testing - Pre-Existing Lines	2	True	False	True	(Number of leaks found) gas leak or leaks was or were detected and confirmed with soap solution. Gas leak or leaks was or were marked with red tag or tags. (Fuel supplier name) verified leak or leaks and made temporary repairs or shut gas off to (home or type of appliance). Permanent repairs are needed.	No confirmed gas leaks		One or more gas leaks were discovered. If the utility only made temporary repairs, this failed task must be put on a CAR.
Q00000314	HPwES; EmPower-HP	AQ	Testing Inspection	Gas Leak Testing - Contractor Installed Lines	2	False	True	True	(Number of leaks found) gas leak or leaks was or were detected and confirmed with soap solution. Gas leak or leaks was or were marked with red tag or tags. (Fuel supplier name) verified leak or leaks and made temporary repairs or shut gas off to (home or type of appliance). Permanent repairs are needed.	No confirmed gas leaks		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000315	HPwES; EmPower-HP	AQ	Testing Inspection	Correctly Measured CAZ(s) Depressurization	1	True	False	True	Worst-case CAZ depressurization limits were exceeded during testing. Recorded reading was (pascal reading). BPI limit is (pascal reading). BPI Standards state: When CAZ depressurization limits are exceeded under worst-case conditions according to the CAZ Depressurization Limit table, make up air must be provided or other modifications to the building shell or exhaust appliances must be included in the work scope to bring the depressurization within acceptable limits.	CAZ passes the depressurization limit and the appliances pass spillage and draft under worst case		CAZ fails the depressurization limit, but the appliances still pass spillage and draft under worst case. Or, the CAZ fails the depressurization limit, and under natural conditions the appliances fail spillage or draft
Q000000316	HPwES; EmPower-HP	AQ	Testing Inspection	Spillage Test Safe	1	True	False	False	(Type of appliance) failed draft (actual draft reading) and/or spillage test with a CO reading of (____) ppm. (Fuel supplier name) verified the condition. The utility red tagged the unit, and left or turned the gas supply to the (home or type of appliance) on or off.		Contractor's test out data did not indicate that a backdraft was occurring under worst case conditions even though there was not unsafe levels of CO	Contractor's test out number did not indicate that spillage or back draft was occurring at worst case which is causing unsafe levels of CO.
Q000000317	HPwES; EmPower-HP	AQ	Testing Inspection	Draft Test Safe	1	True	False	False	(Type of appliance) failed draft (actual draft reading) and/or spillage test with a CO reading of (____) ppm. (Fuel supplier name) verified the condition. The utility red tagged the unit, and left or turned the gas supply to the (home or type of appliance) on or off. (Type of appliance) failed draft test. Temperature outside was (____) degrees. Acceptable draft is (____) pascals. Draft was measured at (____) pascals.		Contractor's test out data did not indicate that the appliance was failing at worst case but is not spilling	Contractor's test out number did not indicate that spillage or back draft was occurring at worst case which is causing unsafe levels of CO.
Q000000318	HPwES; EmPower-HP	AQ	Testing Inspection	Ambient CO Measurements Safe	1	True	False	True			Ambient CO that exceeds 9 ppm* (OSHA 8 hour exposure limit) under non-testing conditions	Ambient CO that exceeds 35 ppm under any circumstances results in a Critical 1

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000319	HPwES; EmPower-HP	AQ	Testing Inspection	Appliance CO Measurements Safe	2	True	False	True	<p>(Name of appliance(s) failed spillage and draft (___) pascals at worst case depressurization with CO of (___) ppm. Worst case (name items that caused worst case – example, kitchen exhaust and dryer); baseline (___) pascals; worst case (___) pascals; difference (___) pascals.</p> <p>CO reading of gas oven is (___) ppm after 10 minutes of operation. Repair oven per BPI Standards</p> <p>Undiluted CO reading of (type of appliance) exceeded 400 ppm and passes draft and spillage testing. (Fuel supplier name) verified the condition. The utility red tagged the unit, and left or turned the gas supply to the (home or type of appliance) on or off. High CO issue needs to be corrected.</p> <p>Undiluted CO reading of (type of appliance) exceeded 400ppm and fails draft and/or spillage testing. (Fuel supplier name) verified the condition. The utility red tagged the unit, and left or turned the gas supply to the (home or type of appliance) on or off. High CO, draft and/or spillage issues need to be corrected.</p>	Appliance CO measurements match the Contractor's measurements and is not above 400ppm. The appliance must pass spillage and draft under natural conditions		
Q000000320	HPwES; EmPower-HP	AQ	Testing Inspection	Test Results Interpreted Correctly	3	True	False	True		Contractor's actions must be consistent with BPI's Combustion Safety Test Action Levels Table based on the results of their combustion testing		
Q000000324	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Coordinated Project - No Out Of Pocket Option Offered	2	True				Contractors must offer a No Out of Pocket "Empower Only" option for AHP-Empower combined projects. Only score if customer is certain the contractor did or did not offer an EmPower only option		
Q000000328	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Contracted Furnace Installed	2	False	True	True		Verified that the contracted furnace was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Installed furnace does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed furnace does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000329	HPwES; EmPower-HP	WQ	Oil Furnace	Contracted Equipment Installed	2	False	True	True		Verified that the contracted furnace was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000342	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Contracted Items Installed	2	False	True	True		Verified that all contracted items were installed as per contract and are functioning properly	DHW tank installed does not match contract but the EF rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the EF is lower than what was contracted. Equipment installed matches contract but is not functioning properly.
Q000000343	HPwES	WQ	Oil DHW Tank	Contracted Items Installed	2	False	True	True		Verified that all contracted items were installed as per contract	DHW tank installed does not match contract but the EF rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the EF is lower than what was contracted
Q000000344	HPwES; EmPower-HP	WQ	Electric DHW Tank	Contracted Items Installed	2	False	True	True		Verified that all contracted items were installed as per contract	DHW tank installed does not match contract but the EF rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the EF is lower than what was contracted
Q000000347	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	All Contracted Items Installed	2	False	True	True		All contracted items were installed as described. Was not installed in conjunction with new boiler.	Installed equipment has the same efficiency specifications but is not the same model as contracted for.	Equipment was not installed. Or, the installed equipment is different than what was contracted for and the efficiency rating and/or features are less than what was paid for.
Q000000352	HPwES; EmPower-HP; EmPower-ER	WQ	Boiler Reset Control	Contracted Equipment Installed	2	False	True	True				
Q000000355	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Appropriate Clearance to Combustibles Maintained	1	True	False	True				
Q000000356	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Access Panel Is Accessible	1	False	False	False				
Q000000357	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	DHW Tank Removal	2	False	False	False		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Q000000358	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Manual Provided	1	False	False	False		OEM manuals must be left with the installed tank		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000359	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Leak Free	1	False	False	False		Water heater and system must be leak-free. All water leaks must be identified and repaired		
Q000000360	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Drain Pan	1	False	False	False		A drain pan must be installed underneath the water heater if it is located where leaks could cause damage. A 1-inch line must be installed between the pan and an appropriate drain.		
Q000000361	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Location	1	False	False	False		If possible, water heater must be placed where leakage from the relief valve, leakage from the related piping, or leakage from the tank or connections, will not result in damage to the surrounding areas, or to the lower floors of the building.		
Q000000362	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Combustion Safety Testing	2	True	False	True		Unit passes all combustion safety tests		
Q000000363	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Venting	2	False	False	False		Venting must have the proper sizing, design, material selection and assembly for the combustion gas venting system. Locate termination consistent with the latest edition of the National Fuel Gas Code (NFPA 54) and manufacturer's specifications		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000364	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Gas Piping	2	False	False	False		All gas piping to be leak-free / tested and must be sized to provide adequate gas supply to all connected gas appliances. Refer to the current National Fuel Gas Code (NFPA 54) (and for Propane NFPA 58) and local codes for gas piping requirements and sizing. Gas piping systems must be of such size and installed as to provide a supply of gas necessary to meet the maximum demand of the all gas appliances at the proper pressures. Gas pipe and connectors must have the appropriate support, hangers, anchors and gas pipe sealant. The new furnace must have a manual "equipment" shut-off valve in the gas supply line immediately upstream of union.		
Q000000365	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Equipment Sizing is Appropriate	2	False	False	False				
Q000000366	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Air Filter and Accessible	2	False	False	False		All air filters must be installed in the return air system in a location that is easily accessible for the homeowner to change. All return air must pass through the return air system. All new duct systems installed must include minimum MERV 6 with design accounting for filter pressure drop @ design airflow.		
Q000000367	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Proper Clearance To Combustibles	1	True	False	False				
Q000000368	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Maintenance Access Is Accessible	1	False	False	False				
Q000000369	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Venting Acceptable - Sealed Combustion Units	1	False	False	False		Units capable of sealed combustion must be setup to draw outside air		
Q000000370	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Venting Acceptable - Natural Draft	1	True	False	False		Inspect the venting system for proper size and horizontal pitch, as required in the latest edition of the National Fuel Gas Code (NFPA 54). Venting must maintain proper clearance to combustibles		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000371	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Gas Line Properly Sized	1	False	False	False				
Q00000372	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Gas Line - CCST Properly Grounded	1	False	False	False				
Q00000374	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Electrical	1	False	False	False		There are no electrical safety issues and there is a shut off installed and within reach for the customer		
Q00000375	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Condensate Drain	1	False	False	False		Condensate must be piped, trapped, pitched, sized and insulated per manufacturer's specifications. Condensate must be installed as to prevent freezing and must not terminate over walkways. If condensate pump is installed, it must also have an interlocked detector / cutout switch installed so that outdoor unit is disabled if water level rises and activates detector / switch		
Q00000377	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		
Q00000378	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Dedicated Duct System	1	False	False	False		Installed equipment must not share a duct vent with another equipment		
Q00000379	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Duct System Airflow	1	False	False	False		On installation where a new duct system is installed the following must be met: The individual room airflows are within the greater of ± 20% or 25CFM of the design/application requirements for the supply and return ducts. Contractor must measure airflow and adjust to above specifications along with providing air balancing report.		
Q00000380	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Duct Connections	1	False	False	False		All ducts are properly connected		
Q00000381	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Duct - Unit Connection	1	False	False	False		Duct must be properly sealed at connection with unit		
Q00000382	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Duct Insulation	1	False	False	False		Ducts in semi or unconditioned space must be insulated to a minimum R-value		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000383	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Duct Return Appropriate	1	False	False	True		Duct return must not be installed in CAZ		
Q000000384	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Equipment Removal	1	False	False	True		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q000000385	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Tankless Water Heater is Sealed Combustion	1	False	False	False				
Q000000386	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Proper Clearance to Combustibles	1	False	False	False				
Q000000387	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Maintenance Access Panels are Accessible	1	False	False	False				
Q000000388	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Venting	2	True	False	True		All connections are sealed, sturdy and PVC glued. Sealed combustion units are vented to the outside.	One of more minor venting deficiencies that do not effect the H&S of the occupants exist	One or more venting deficiencies exist that pose a potential H&S risk to the customer.
Q000000389	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Gas Lines	2	True	False	True		Gas Lines are properly sized for demand, have no leaks and CCST is properly grounded		
Q000000390	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Electrical	1	True	False	True		No electrical safety issues exist and the shutoff switch is within reach for the customer		
Q000000391	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Water Line	1	False	False	True		Water line is properly sized for the distance before on demand unit		
Q000000392	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Drain	1	False	False	False		Condensate does not drain below slab		
Q000000393	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping installed with proper specifications		
Q000000394	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Distribution Insulation	1	False	False	False		Hot water distribution is insulated to the minimum required r-value if unit is in semi or non-conditioned space		
Q000000396	HPwES; EmPower-HP	AQ	Testing Inspection	Gas Line Capped	2	True	False	True	Gas line terminates and is not capped off at the end. NFPA 54 Chapter 7.7.21 states: Each outlet, including a valve, shall be closed gastight with a thread plug or cap immediately after installation and shall be left closed until the appliance or equipment is connected thereto. When an appliance or equipment is disconnected from an outlet and the outlet is not to be used again immediately, it shall be capped or plugged gastight	Each outlet, including a valve, shall be closed gastight with a thread plug or cap immediately after installation and shall be left closed until the appliance or equipment is connected		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000397	HPwES; EmPower-HP	AQ	Testing Inspection	Oil Leakage Testing	2	True	False	True	An oil leak was found at (name location and include picture) and needs to be repaired. NFPA 31, Chapter 8.2.9, states: Piping systems shall be maintained liquid tight. A piping system that leaks shall be emptied of liquid or repaired in an approved manner.			
Q000000399	HPwES; EmPower-HP	AQ	Visual Inspection	Unvented Space Heater Identified	2	True	False	False	Measures were completed that may effect the air movement in the home and an unvented space heater or heaters are present in the home and the fuel line is not capped off. No measures were completed that effected air movement in the home but an unvented space heater or heaters were present in the home, the fuel line was not capped off and no recommendation to disable the appliance was documented	If measures were completed that impact air movement in the home any unvented space heaters must be disconnected and the fuel supply line capped. If no measures were completed that effect air movement in the home, but an unvented space heater exists, the contractor must make a recommendation to the homeowner to disable it.		An unvented space heater was not disabled and the fuel line was not capped off and measures were completed that effected air movement in the home. Or, no measures were completed that effect air movement in the home but an unvented space heater exists, the fuel line is not capped off and no recommendation to disable the appliance was documented.
Q000000400	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Contracted Steam Boiler Installed	2	False	True	True		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000401	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Equipment Sizing is Appropriate	2	False	False	False				
Q000000403	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Proper Clearance To Combustibles	1	True	False	False				
Q000000404	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Maintenance Access Is Accessible	1	False	False	False				
Q000000405	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Venting - Sealed Combustion Units	1	False	False	False		Units capable of sealed combustion must be setup to draw outside air		
Q000000406	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Venting - Natural Draft	1	True	False	False		Venting must maintain proper clearance to combustibles		
Q000000407	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Gas Line Properly Sized	1	False	False	False				
Q000000408	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Gas Line - CCST Properly Grounded	1	False	False	False				
Q000000409	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Electric	1	False	False	False		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000410	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Condensate Drain	1	False	False	False		Condensate Drain must not drain below the unit		
Q000000411	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping is installed to proper specifications		
Q000000412	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		
Q000000419	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Equipment Removal	1	False	False	True		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q000000420	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Contracted Steam Boiler Installed	2	False	True	True		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000421	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Equipment Sizing is Appropriate	2	False	False	False				
Q000000423	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Proper Clearance To Combustibles	1	True	False	False				
Q000000424	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Maintenance Access Is Accessible	1	False	False	False				
Q000000425	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Venting - Sealed Combustion Units	1	False	False	False		Units capable of sealed combustion must be setup to draw outside air		
Q000000426	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Venting - Natural Draft	1	True	False	False		Venting must maintain proper clearance to combustibles		
Q000000429	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Electric	1	False	False	False		There are no electrical safety issues and there is a shut off installed and within reach for the customer		
Q000000430	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Condensate Drain	1	False	False	False		Condensate Drain must not drain below the unit		
Q000000432	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		
Q000000439	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Equipment Removal	1	False	False	True		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000440	HPwES	WQ	Gas Hearth	Contracted Equipment Installed	2	False	True	True		Verified that all contracted items were installed as per contract	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000441	HPwES	WQ	Gas Hearth	Equipment Sizing is Appropriate	2	False	False	False				
Q000000442	HPwES	WQ	Gas Hearth	Air Filter Accessible	1	False	False	False				
Q000000443	HPwES	WQ	Gas Hearth	Proper Clearance To Combustibles	1	True	False	False				
Q000000444	HPwES	WQ	Gas Hearth	Maintenance Access Is Accessible	1	False	False	False				
Q000000445	HPwES	WQ	Gas Hearth	Venting - Sealed Combustion Units	1	False	False	False		Units capable of sealed combustion must be setup to draw outside air		
Q000000446	HPwES	WQ	Gas Hearth	Venting - Natural Draft	1	True	False	False		Venting must maintain proper clearance to combustibles		
Q000000447	HPwES	WQ	Gas Hearth	Gas Line Properly Sized	1	False	False	False				
Q000000448	HPwES	WQ	Gas Hearth	Gas Line - CCST Properly Grounded	1	False	False	False				
Q000000449	HPwES	WQ	Gas Hearth	Electric	1	False	False	False		There are no electrical safety issues and there is a shut off installed and within reach for the customer		
Q000000452	HPwES	WQ	Gas Hearth	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		
Q000000459	HPwES	WQ	Gas Hearth	Equipment Removal	1	False	False	True		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q000000460	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Contracted Equipment Installed	2	False	True	True		Verified that all contracted items were installed as per contract	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000461	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Equipment Sizing is Appropriate	2	False	False	False				
Q000000462	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Air Filter Accessible	1	False	False	False				
Q000000463	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Proper Clearance To Combustibles	1	True	False	False				

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000464	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Maintenance Access Is Accessible	1	False	False	False				
Q00000466	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Venting - Natural Draft	1	True	False	False		Venting must maintain proper clearance to combustibles		
Q00000467	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Gas Line Properly Sized	1	False	False	False				
Q00000469	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Electrical	1	False	False	False		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Q00000472	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		
Q00000479	HPwES; EmPower-HP	WQ	Solid Fuel Hearth	Equipment Removal	1	False	False	True		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q00000480	HPwES	WQ	Air Conditioner Replacement	Contracted Equipment Installed	2	False	True	True		Verified that all contracted items were installed as per contract	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q00000481	HPwES	WQ	Air Conditioner Replacement	Equipment Sizing is Appropriate	2	False	False	False				
Q00000482	HPwES	WQ	Air Conditioner Replacement	Air Filter Accessible	1	False	False	False				
Q00000484	HPwES	WQ	Air Conditioner Replacement	Maintenance Access Is Accessible	1	False	False	False				
Q00000489	HPwES	WQ	Air Conditioner Replacement	Electric	1	False	False	False		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Q00000490	HPwES	WQ	Air Conditioner Replacement	Condensate Drain	1	False	False	False		Condensate Drain must not drain below the unit		
Q00000492	HPwES	WQ	Air Conditioner Replacement	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		
Q00000493	HPwES	WQ	Air Conditioner Replacement	Dedicated Duct System	1	False	False	False		Installed equipment must not share a duct vent with another equipment		
Q00000494	HPwES	WQ	Air Conditioner Replacement	Duct System Airflow	1	False	False	False		Airflow through duct system must meet manufacturer's specifications		
Q00000495	HPwES	WQ	Air Conditioner Replacement	Duct Connections	1	False	False	False		All ducts are properly connected		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000496	HPwES	WQ	Air Conditioner Replacement	Duct - Unit Connection	1	False	False	False		Duct must be properly sealed at connection with unit		
Q000000497	HPwES	WQ	Air Conditioner Replacement	Duct Insulation	1	False	False	False		Ducts in semi or unconditioned space must be insulated to a minimum R-value		
Q000000498	HPwES	WQ	Air Conditioner Replacement	Duct Return Appropriate	1	False	False	True		Duct return must not be installed in CAZ		
Q000000499	HPwES	WQ	Air Conditioner Replacement	Equipment Removal	1	False	False	True		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q000000546	HPwES; EmPower-HP	AQ	Metal Duct Installation	Correct Material Used as Sealant	1	False	False	False		Duct mastic or mastic backed tape.		
Q000000549	HPwES; EmPower-HP	AQ	Flex Duct Installation	Flexible Duct Location Appropriate	1	False	False	False		Flexible duct is installed in a location where not subject to degradation		
Q000000550	HPwES; EmPower-HP	AQ	Flex Duct Installation	Flexible Ducts Supported	1	False	False	False		Flexible duct is fully extended, not compressed and has proper support at correct intervals.		
Q000000554	HPwES; EmPower-HP	AQ	Metal Duct Installation	Joints, Seams and Connections	2	False	False	False		All joints, seams and connections are mechanically fastened and sealed with mastic.		
Q000000555	HPwES; EmPower-HP	AQ	Metal Duct Installation	Ducts and Plenum Metal Thickness	1	False	False	False		Metal duct is of the correct thickness		
Q000000556	HPwES; EmPower-HP	AQ	Metal Duct Installation	Metal Ducts Properly Supported	1	False	False	False		Ducts are supported at the proper intervals using the correct material.		
Q000000557	HPwES; EmPower-HP	AQ	Metal Duct Installation	Ducts Installed as Invoiced	2	False	True	True				
Q000000558	HPwES; EmPower-HP	AQ	Flex Duct Installation	Flexible Ducts Installed as Invoiced	2	False	True	True				

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000559	HPwES; EmPower-HP	HS	Roadblocks	Exhaust Fans Vented Properly	2	True	False	True	Dryer and/or bathroom exhaust fan not vented properly. Vent dryer and/or bathroom exhaust fan to the outside. BPI Standards state: Clothes dryers, regardless of fuel type, and bathroom exhaust fans must be vented directly outside using appropriate duct materials (metal ducts are required for gas fueled clothes dryers) before proceeding with installation of air sealing, duct sealing, or enclosed cavity insulation measures. Exhaust ducts running through unconditioned space must be insulated and have a minimum ¼" rise for every foot of run towards wall or roof terminations.	All exhaust fans (bath fans, kitchen fans, clothes dryers) must be vented to the outside of the structure in all cases where measures will be installed that will change the air movement in the home		
Q000000560	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Contracted Boiler Installed	2	False	True	True		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Installed boiler does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed boiler does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000561	HPwES; EmPower-HP	WQ	Oil HW Boiler	Contracted Boiler Installed	2	False	True	True		Verified that the contracted boiler was installed. Do not mark this task as failed if the heating unit was installed but ancillary equipment was not installed.	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000566	HPwES	WQ	Air Source Heat Pump	Contracted Item Installed Per Contract	1	False	True	True		Verified that all contracted items were installed as per contract. Installed systems must be ENERGY STAR @ rated and only integrated heat pumps allowed, no add-on products (do not include storage tanks)	Equipment installed does not match contract but the efficiency rating matches or exceeds the contracted equipment	Installed equipment does not match the contract and the efficiency is lower than what was contracted. Or, equipment was not installed.
Q000000567	HPwES	WQ	Air Source Heat Pump	Tank Installed in Proper Location	1	True	False	False		Installed systems must be located outside of the conditioned area. Installed system must be located in space temperatures between 45-90 degrees or for a system that uses inlet air ducts the entering air must be between 40 – 90 degrees. Water heater location to be a 750 - 1,000 cubic feet of area or as required by manufacturer's specifications.		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000568	HPwES	WQ	Air Source Heat Pump	Modes of Operation	1	True	False	False		Heat Pump Water Heaters must have at the minimum the following modes of operation:– HEAT PUMP ONLY– HYBRID: This mode uses the heat pump as the primary heating source. The heating element will heat water if demand exceeds a predetermined level so that the set point temperature can be recovered more quickly.– ELECTRIC: The water heater functions as a conventional electric unit, relying totally on the elements to heat the water in the tank.– VACATION: Unit off or set for very low temperature		
Q00000569	HPwES; EmPower-HP	AQ	Rigid Fibrous Duct Installation	Duct Installation Appropriate	2	False	False	False		Hanger straps or saddles must be a minimum of 2" wide. Avoid sharp edges and burrs. Hangers must be spaced on 6 foot centers, and must be located at circumferential joints wherever practical. Duct must be hung so that the hanger will not cut or otherwise damage the duct facing (NAIMA Fibrous Glass Duct Liner Standard).		
Q00000570	HPwES; EmPower-HP	AQ	Rigid Fibrous Duct Installation	Location of Installation	1	False	False	False		Rigid fibrous glass duct must not be used in concrete, buried below grade, or any other location where it may be exposed to weather or physical abuse.		
Q00000571	HPwES	WQ	Waste Water Heat Recovery System	Meets Program Eligibility	1	False	False	False		Installed equipment must have an EF of .42 or greater. Installed systems must be professionally manufactured and rated. A double-walled heat exchanger must be utilized		
Q00000572	HPwES	WQ	Waste Water Heat Recovery System	Installation	1	False	False	False		Systems must be installed vertically.		
Q00000573	HPwES; EmPower-HP	WQ	Oil HW Boiler	Equipment Sizing is Appropriate	1	False	False	False				
Q00000574	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Equipment Sizing is Appropriate	1	False	False	False		Boiler, pump and system piping must be sized per manufacturer's specifications, IBR or approved equivalent.		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000575	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Proper Clearance To Combustibles	1	False	False	False				
Q000000576	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Maintenance Access Is Accessible	1	False	False	False				
Q000000577	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Venting Acceptable - Sealed Combustion Units	1	False	False	False		Units capable of sealed combustion must be setup to draw outside air		
Q000000578	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Venting Acceptable - Natural Draft	1	False	False	False		Venting must maintain proper clearance to combustibles		
Q000000579	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Gas Line Properly Sized	1	False	False	False				
Q000000580	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Gas Line - CCST Properly Grounded	1	False	False	False				
Q000000581	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Electric	1	False	False	False		There are no electrical safety issues and and there is a shut off installed and within reach for the customer		
Q000000582	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Condensate Drain	1	False	False	False		Condensate Drain must not drain below the unit. Condensate must be piped, trapped, pitched, sized and insulated per manufacturer's specifications. Condensate must be installed as to prevent freezing and must not terminate over walkways. If condensate pump is installed, it must also have an interlocked detector / cutout switch installed so that outdoor unit is disabled if water level rises and activates detector / switch		
Q000000583	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		
Q000000584	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Equipment Removal	1	False	False	False		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q000000585	HPwES; EmPower-HP	WQ	Oil Furnace	Equipment Sizing is Appropriate	2	False	False	False				
Q000000586	HPwES; EmPower-HP	WQ	Oil Furnace	Proper Clearance To Combustibles	1	True	False	False				

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000587	HPwES; EmPower-HP	WQ	Oil Furnace	Maintenance Access Is Accessible	1	False	False	False		Units capable of sealed combustion must be setup to draw outside air		
Q000000588	HPwES; EmPower-HP	WQ	Oil HW Boiler	Proper Clearance To Combustibles	1	False	False	False				
Q000000589	HPwES; EmPower-HP	WQ	Oil Furnace	Venting Acceptable - Natural Draft	1	True	False	False		Inspect the venting system for proper size and horizontal pitch, as required in the latest edition of the National Fuel Gas Code (NFPA 54). Venting must maintain proper clearance to combustibles		
Q000000590	HPwES; EmPower-HP	WQ	Oil Furnace	Electric	1	False	False	False		There are no electrical safety issues and there is a shut off installed and within reach for the customer		
Q000000591	HPwES; EmPower-HP	WQ	Oil Furnace	Condensate Drain	1	False	False	False		Condensate must be piped, trapped, pitched, sized and insulated per manufacturer's specifications. Condensate must be installed as to prevent freezing and must not terminate over walkways. If condensate pump is installed, it must also have an interlocked detector / cutout switch installed so that outdoor unit is disabled if water level rises and activates detector / switch		
Q000000592	HPwES; EmPower-HP	WQ	Oil Furnace	Heat Rise Test	1	False	False	False				
Q000000593	HPwES; EmPower-HP	WQ	Oil Furnace	Dedicated Duct System	1	False	False	False		Installed equipment must not share a duct vent with another equipment		
Q000000594	HPwES; EmPower-HP	WQ	Oil Furnace	Duct System Airflow	1	False	False	False		On installation where a new duct system is installed the following must be met: The individual room airflows are within the greater of ± 20% or 25CFM of the design/application requirements for the supply and return ducts. Contractor must measure airflow and adjust to above specifications along with providing air balancing report.		
Q000000595	HPwES; EmPower-HP	WQ	Oil Furnace	Duct Connections	1	False	False	False		All ducts are properly connected		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000596	HPwES; EmPower-HP	WQ	Oil Furnace	Duct - Unit Connection	1	False	False	False		Duct must be properly sealed at connection with unit		
Q00000597	HPwES; EmPower-HP	WQ	Oil Furnace	Duct Insulation	1	False	False	False		Ducts installed in semi or unconditioned space must be insulated to a minimum R-value		
Q00000598	HPwES; EmPower-HP	WQ	Oil Furnace	Duct Return Appropriate	1	False	False	False		Duct return must not be installed in CAZ		
Q00000599	HPwES; EmPower-HP	WQ	Oil Furnace	Equipment Removal	1	False	False	True		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q00000600	HPwES; EmPower-HP	WQ	Oil HW Boiler	Maintenance Access Is Accessible	1	False	False	False				
Q00000601	HPwES; EmPower-HP	WQ	Oil HW Boiler	Venting Acceptable - Sealed Combustion Units	1	False	False	False		Units capable of sealed combustion must be setup to draw outside air		
Q00000602	HPwES; EmPower-HP	WQ	Oil HW Boiler	Venting Acceptable - Natural Draft	1	False	False	False		Venting must maintain proper clearance to combustibles. Inspect the venting system for proper size and horizontal pitch, as required in the latest edition of the National Fuel Gas Code (NFPA 54).		
Q00000605	HPwES; EmPower-HP	WQ	Oil HW Boiler	Electric	1	False	False	False		There are no electrical safety issues and there is a shut off installed and within reach for the customer		
Q00000606	HPwES; EmPower-HP	WQ	Oil HW Boiler	Condensate Drain	1	False	False	False		Condensate Drain must not drain below the unit. Condensate must be piped, trapped, pitched, sized and insulated per manufacturer's specifications. Condensate must be installed as to prevent freezing and must not terminate over walkways. If condensate pump is installed, it must also have an interlocked detector / cutout switch installed so that outdoor unit is disabled if water level rises and activates detector / switch		
Q00000607	HPwES; EmPower-HP	WQ	Oil HW Boiler	Heat Rise Test	1	False	False	False		Delta T from heat rise test must fall within manufacturer's specifications		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000608	HPwES; EmPower-HP	WQ	Oil HW Boiler	Equipment Removal	1	False	False	False		If included as part of the contract, the furnace, including all other items related to the furnace must be removed from the home		
Q00000609	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	Smoke Detector	1	False	False	False				
Q00000610	HPwES	WQ	Oil DHW Tank	Appropriate Clearance to Combustibles Maintained	1	True	False	True				
Q00000611	HPwES	WQ	Oil DHW Tank	Access Panel Is Accessible	1	False	False	False				
Q00000612	HPwES	WQ	Oil DHW Tank	DHW Tank Removal	2	False	False	False		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Q00000613	HPwES	WQ	Oil DHW Tank	Manual Provided	1	False	False	False		OEM manuals must be left with the installed tank		
Q00000614	HPwES	WQ	Oil DHW Tank	Leak Free	1	False	False	False		Water heater and system must be leak-free. All water leaks must be identified and repaired		
Q00000615	HPwES	WQ	Oil DHW Tank	Drain Pan	1	False	False	False		A drain pan must be installed underneath the water heater if it is located where leaks could cause damage. A 1-inch line must be installed between the pan and an appropriate drain.		
Q00000616	HPwES	WQ	Oil DHW Tank	Location Appropriate	1	False	False	False		If possible, water heater must be placed where leakage from the relief valve, leakage from the related piping, or leakage from the tank or connections, will not result in damage to the surrounding areas, or to the lower floors of the building.		
Q00000617	HPwES	WQ	Oil DHW Tank	Combustion Safety Testing	2	False	False	False		Unit passes all combustion safety tests		
Q00000618	HPwES	WQ	Oil DHW Tank	Venting	2	False	False	False		Venting must have the proper sizing, design, material selection and assembly for the combustion gas venting system. Locate termination consistent with the latest edition of the National Fuel Gas Code (NFPA 54) and manufacturer's specifications		
Q00000619	HPwES; EmPower-HP	WQ	Electric DHW Tank	Access Panel Is Accessible	1	False	False	False				

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000620	HPwES; EmPower-HP	WQ	Electric DHW Tank	DHW Tank Removal	2	False	False	False		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Q00000621	HPwES; EmPower-HP	WQ	Electric DHW Tank	Manual Provided	1	False	False	False		OEM manuals must be left with the installed tank		
Q00000622	HPwES; EmPower-HP	WQ	Electric DHW Tank	Leak Free	1	False	False	False		Water heater and system must be leak-free. All water leaks must be identified and repaired		
Q00000623	HPwES; EmPower-HP	WQ	Electric DHW Tank	Drain Free	1	False	False	False		A drain pan must be installed underneath the water heater if it is located where leaks could cause damage. A 1-inch line must be installed between the pan and an appropriate drain		
Q00000624	HPwES; EmPower-HP	WQ	Electric DHW Tank	Location	1	False	False	False		If possible, water heater must be placed where leakage from the relief valve, leakage from the related piping, or leakage from the tank or connections, will not result in damage to the surrounding areas, or to the lower floors of the building		
Q00000625	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Pipe Insulation	1	False	False	False		Boiler piping installed in unconditioned spaces must be insulated with a minimum of R-4. Existing boiler piping installed in unconditioned spaces must be insulated to a minimum of R-4.		
Q00000626	HPwES; EmPower-HP	WQ	Oil Furnace	Air Filter	1	False	False	False		All air filters must be installed in the return air system in a location that is easily accessible for the homeowner to change. All return air must pass through the return air system. All new duct systems installed must include minimum MERV 6 with design accounting for filter pressure drop @ design airflow.		
Q00000627	HPwES; EmPower-HP	WQ	Oil Furnace	Fuel Oil Storage System	1	False	False	False		The integrity of the fuel oil storage system must be checked and repairs/replacement included with new installation. New oil storage system must be installed in accordance with the latest edition of NFPA 31.		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000628	HPwES; EmPower-HP	WQ	Oil Furnace	Fuel Oil Piping	1	False	False	False		All oil piping to be leak-free and must be sized to provide adequate oil supply to all connected oil appliances. Oil line piping design, materials, and construction must be in accordance with the latest edition of NFPA 31		
Q00000629	HPwES; EmPower-HP	WQ	Oil HW Boiler	Fuel Oil Storage System	1	False	False	False		The integrity of the fuel oil storage system must be checked and repairs/replacement included with new installation. New oil storage system must be installed in accordance with the latest edition of NFPA 31.		
Q00000630	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Fuel Oil Storage Tank	1	False	False	False		The integrity of the fuel oil storage system must be checked and repairs/replacement included with new installation. New oil storage system must be installed in accordance with the latest edition of NFPA 31.		
Q00000631	HPwES; EmPower-HP	WQ	Oil HW Boiler	Fuel Oil Piping	1	False	False	False		All oil piping to be leak-free and must be sized to provide adequate oil supply to all connected oil appliances. Oil line piping design, materials, and construction must be in accordance with the latest edition of NFPA 31		
Q00000632	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Fuel Oil Piping	1	False	False	False		All oil piping to be leak-free and must be sized to provide adequate oil supply to all connected oil appliances. Oil line piping design, materials, and construction must be in accordance with the latest edition of NFPA 31		
Q00000633	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping installed with proper specifications		
Q00000634	HPwES	WQ	Oil DHW Tank	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping installed with proper specifications		
Q00000635	HPwES; EmPower-HP	WQ	Electric DHW Tank	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping installed with proper specifications		
Q00000636	HPwES; EmPower-HP	WQ	Indirect-Fired DHW Tank	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping is installed to proper specifications		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000637	HPwES; EmPower-HP	WQ	Solar DHW Heater	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping installed with proper specifications		
Q00000638	HPwES	WQ	Air Source Heat Pump	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping installed with proper specifications		
Q00000639	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping is installed to proper specifications		
Q00000640	HPwES; EmPower-HP	WQ	Oil HW Boiler	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping is installed to proper specifications		
Q00000641	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Temperature-Pressure Relief Valve	1	False	False	False		TPRV and down tube piping is installed to proper specifications		
Q00000642	HPwES; EmPower-HP	WQ	Indirect-Fired DHW Tank	Primary Zone Piping	1	False	False	False		Indirect water heater must be piped as priority zone on boiler.		
Q00000644	HPwES; EmPower-HP	WQ	Indirect-Fired DHW Tank	Piping Controls and Pumping	1	False	False	False		Boiler piping, controls and pumping must be installed to provide the proper flow through the indirect coil, specified by the indirect manufacturer. Cold-start control strategy must be used.		
Q00000645	HPwES; EmPower-HP	WQ	Indirect-Fired DHW Tank	Indirect DHW Tank Installed	2	False	True	True		All contracted items were installed as described	Installed equipment has the same efficiency specifications but is not the same model as contracted for.	Equipment was not installed. Or, the installed equipment is different than what was contracted for and the efficiency rating and/or features are less than what was paid for.
Q00000646	HPwES; EmPower-HP	WQ	Indirect-Fired DHW Tank	Manual Provided	1	False	False	False		OEM manuals must be left with the installed tank		
Q00000647	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Manual Provided	1	False	False	False		OEM manuals must be left with the installed tank		
Q00000648	HPwES; EmPower-HP	WQ	Solar DHW Heater	Manual Provided	1	False	False	False		OEM manuals must be left with the installed tank		
Q00000649	HPwES	WQ	Air Source Heat Pump	Manual Provided	1	False	False	False		OEM manuals must be left with the installed tank		
Q00000650	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Sufficient Flow	1	False	False	False		System is sized properly to provide adequate flow rate to meet DHW load of household		
Q00000652	HPwES; EmPower-HP	WQ	Indirect-Fired DHW Tank	DHW Tank Removal	2	False	False	False		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000653	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	DHW Tank Removal	2	False	False	False		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Q00000654	HPwES	WQ	Air Source Heat Pump	DHW Tank Removal	2	False	False	False		Unless the contract specifies otherwise the contractor is responsible for removal of the old DHW tank		
Q00000655	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	All Exposed Pipes Insulated	2	False	False	True				
Q00000656	HPwES; EmPower-HP	WQ	Oil Steam Boiler	All Exposed Pipes Insulated	2	False	False	True				
Q00000657	HPwES; EmPower-HP	WQ	Attic Insulation	Kneewall Insulation	2	False	False	True		Kneewall insulation installed must include an air barrier on the cold (attic) side		
Q00000658	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Contracted Amounts Verified	2	False	True	True		N/A for EmPower - 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).		
Q00000659	HPwES; EmPower-HP	WQ	Rim Joist Insulation	Specified R-Value And Quantity Installed	2	False	True	True		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable		
Q00000660	HPwES; EmPower-HP	WQ	Rim Joist Insulation	Specified Material Installed	2	False	True	True		Installed insulation type matches contract		Installed insulation type does not match contract
Q00000661	HPwES; EmPower-HP	WQ	Rim Joist Insulation	Spray Foam Insulation Is Closed Cell	1	False	False	False				
Q00000662	HPwES; EmPower-HP	WQ	Rim Joist Insulation	Site Restored to Tidy Condition	1	False	False	True				
Q00000663	HPwES; EmPower-HP; EmPower-ER	WQ	Combo Detector	Contracted Combination Smoke/CO Detector Present	1	True	False	True		If the contract included installation of one or more Combo Smoke/CO detectors, verify that all have been installed.		
Q00000664	HPwES; EmPower-HP; EmPower-ER	WQ	Combo Detector	Smoke Detector	.5	False	False	False		Smoke Detector must be installed per manufacturer's specifications		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000665	HPwES; EmPower-HP; EmPower-ER	WQ	Combo Detector	Powered by Lithium battery	.5	False	False	False				
Q00000666	HPwES; EmPower-HP; EmPower-ER	WQ	Combo Detector	Make and Model Program Approved	.5	False	False	False				
Q00000667	HPwES; EmPower-HP	WQ	Oil HW Boiler	Pipe Insulation	1	False	False	False		Boiler piping installed in unconditioned spaces must be insulated with a minimum of R-4. Existing boiler piping installed in unconditioned spaces must be insulated to a minimum of R-4.		
Q00000668	HPwES; EmPower-HP	WQ	Attic Air Sealing	Air Sealing Work Completed As Contracted	2	False	True	True		Air sealing work must be completed as contracted for. If specific areas were mentioned in the contract, they must be completed. If the contract refers to a CFM reduction, or a specific number of hours of air sealing, work must be completed within 90% of what was contracted for.	More than 80% but less than 90% of contracted air sealing work was completed.	Less than 80% of contracted air sealing work was completed.
Q00000669	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Comprehensive Home Assessment	1	False	False	False		N/A for EmPower. Verify with the customer that they received the Comprehensive Home Assessment report PRIOR to contracting.		
Q00000670	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	So What's Next Brochure Received	1	False	False	False		N/A for EmPower. Verify with the customer they received the "So What's Next Brochure" brochure		
Q00000671	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Customer Verification of Work Completed	1	False	True	False		N/A for EmPower. Ask the customer who completed the project measures. If the contractor is different than what is listed on the submitted project documents, rate task a fail.		
Q00000672	HPwES; EmPower-HP	WQ	Basement Air Sealing	Air Sealing Work Completed As Contracted	2	False	True	True		Air sealing work must be completed as contracted for. If specific areas were mentioned in the contract, they must be completed. If the contract refers to a CFM reduction, or a specific number of hours of air sealing, work must be completed within 90% of what was contracted for.	More than 80% but less than 90% of contracted air sealing work was completed.	Less than 80% of contracted air sealing work was completed.

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000673	HPwES; EmPower-HP	WQ	Living Space Air Sealing	Air Sealing Work Completed As Contracted	2	False	True	True		Air sealing work must be completed as contracted for. If specific areas were mentioned in the contract, they must be completed. If the contract refers to a CFM reduction, or a specific number of hours of air sealing, work must be completed within 90% of what was contracted for.	More than 80% but less than 90% of contracted air sealing work was completed.	Less than 80% of contracted air sealing work was completed.
Q00000674	HPwES; EmPower-HP	AQ	Duct Sealing	Duct Sealing Completed as Contracted	2	False	True	True		At least 90% of duct sealing in accessible areas was completed		Less than 75% of contracted duct sealing in accessible areas was completed
Q00000675	HPwES	AQ	Duct Insulation	Duct Insulation Completed as Contracted	2	False	True	True		At least 90% of duct sealing in accessible areas was completed	Less than 90% but more than 75% of duct insulation was installed as contracted	Less than 75% of duct insulation was installed
Q00000676	HPwES; EmPower-HP	AQ	Rigid Fibrous Duct Installation	Rigid Fibrous Duct Installed as Invoiced	2	False	True	True				
Q00000677	HPwES; EmPower-HP	WQ	Solar DHW Heater	All Contracted Items Installed Per Contract	2	False	True	True		All contracted items were installed as described.		
Q00000678	HPwES; EmPower-HP	WQ	Floor Insulation	Contracted Floor Insulation Installed	2	False	True	True		At least 90% of insulation was installed and meets or exceeds the r-value specified, if applicable	Less than 90% but more than 80% of insulation was installed	Less than 80% of billed insulation was installed
Q00000679	HPwES; EmPower-HP	WQ	Floor Insulation	Specified Material Type Installed	1	True	False	False		Installed material type matches contract		
Q00000680	HPwES; EmPower-HP	WQ	Floor Insulation	No Air Leakage Paths	1	False	False	False		IR scans indicate little to no air leakage pathways		
Q00000681	HPwES; EmPower-HP	WQ	Floor Insulation	Densepack Insulation	2	False	True	True		Dense packed insulation shall be installed at a minimum of 3.5 lbs/cu. Ft. for cellulose and 2.2 lbs/cu. Ft for blown fiber that is manufactured for densepack installation	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 3.2 lbs/cu. Ft. but more than 2.8	Dense packed cellulose insulation was installed at less than an average (as verified by multiple core samples) of 2.8 lbs/cu. Ft. If core sampling was not done but probing in multiple areas indicated it was loosely blown.
Q00000682	HPwES; EmPower-HP	WQ	Floor Insulation	Site Restored to Original Condition	1	False	False	False				
Q00000683	HPwES; EmPower-HP	WQ	Floor Insulation	Insulation Contact Warm Surface	1	False	False	False		Insulation should be touching the floor it is keeping warm. No gaps between the insulation and the floor sheathing		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000684	HPwES; EmPower-HP; EmPower-ER	AQ	Data Collection	Combustion Safety Testing Results Submitted	2	True	False	False		Testing results must be complete and submitted to the program	Testing results are partially complete	No combustion safety testing results were submitted
Q00000685	HPwES; EmPower-HP	WQ	Exhaust Fan	Contracted Exhaust Fan Installed	2	False	True	True				
Q00000686	HPwES; EmPower-HP	WQ	Exhaust Fan	Venting	2	True	False	False		Exhaust vents must be vented to either a roof flapper vent, an end wall flapper vent or if neither of these two options is available, to an exhaust vent designed to be installed in a soffit. All exterior flapper vents must be equipped with a back draft damper that works smoothly. Back draft dampers at the fan unit must be removed. Vent outlets must be properly flashed and sealed into roof or siding materials so water will not leak into the assembly.		
Q00000687	HPwES; EmPower-HP	WQ	Exhaust Fan	Ducting	1	False	False	False		Exhaust ducting must be attached to the fan outlet and the flapper vent connector with metal clamps. The duct must be insulated to current code levels for the location it passes through. The duct insulation must have a vapor retarder covering. Hard duct must be supported every 10 feet with 1" metal straps. Flex duct must be supported according to manufacturer's instructions.		
Q00000688	HPwES; EmPower-HP	WQ	Exhaust Fan	Fan Specifications are Appropriate	1	False	False	False		They must be rated for continuous use and they must have a noise rating of 1.0 sones or less. Examples of fans of this type are: Ceiling mount fan: Panasonic FV-11VQ2, Ceiling mount fan/light: Panasonic FV-11VQ2L or Wall mount fan: Panasonic FV-08WQ1.		
Q00000689	HPwES; EmPower-HP	WQ	Exhaust Fan	Installation Quality	1	True	False	False		Exhaust fans and 24 hour timers must be installed neatly and according to manufacturer's installation instructions. Gaps between the fan housing and surrounding finishes must be sealed with caulk or 1-part foam.		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q00000690	HPwES; EmPower-HP	WQ	Exhaust Fan	Timer	1	False	False	False		Fans must have an on/off switch separate from the timer that occupants will use for spot ventilation. The 24 hour timer must be remotely located out of easy reach of the occupants.		
Q00000691	HPwES; EmPower-HP	AQ	Testing Inspection	Smoke Reading Acceptable	1	True	False	True	Fuel oil heating unit smoke reading is () and does not meet the NFPA standard.	N/A for HPwES Inspections. NFPA states smoke reading of fuel oil units should be between 0-1		Smoke reading of fuel oil unit exceeds 1
Q00000692	HPwES; EmPower-HP	AQ	Visual Inspection	CO Detector Present	2	True	False	True	There is no carbon monoxide detector in home. At least one CO detector meeting UL-2034 requirements shall be installed according to manufacturer's instructions in every home with an attached garage and/or combustion appliances. It is recommended that additional CO detectors are installed, as needed, to provide a separate detector for each floor of the building	At least one CO detector meeting UL-2034 requirements shall be installed according to manufacturer's instructions in every home with an attached garage and/or combustion appliances.		
Q00000694	HPwES; EmPower-HP	AQ	Visual Inspection	Attic Space Accessible	2	True	False	False	Attic insulation and/or air sealing was a contracted measure and the attic hatch has been sealed shut. Access to the attic must be provided in order to ensure	Contractor must not seal off access to the attic when attic insulation and/or air sealing was a contracted measure.		
Q00000696	HPwES	WQ	Waste Water Heat Recovery System	Contracted Item Installed Per Contract	2	False	True	True		Installed equipment has an EF rating and model number that match the contract	Installed equipment has an EF rating that matches the contract but the model number differs	Equipment was not installed or the installed equipment has an EF rating less than what was contracted for
Q00000697	HPwES; EmPower-HP	WQ	Gas/Propane Furnace	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q00000698	HPwES; EmPower-HP	WQ	Gas/Propane HW Boiler	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q00000699	HPwES; EmPower-HP	WQ	Gas/Propane Steam Boiler	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q00000700	HPwES; EmPower-HP	WQ	Oil Furnace	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q00000701	HPwES; EmPower-HP	WQ	Oil HW Boiler	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q00000702	HPwES; EmPower-HP	WQ	Oil Steam Boiler	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q00000703	HPwES; EmPower-HP	WQ	Electric DHW Tank	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		

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Question ID	PR	CAT	Measure	Task	Pts	C1	C2	CAR Yes	Failure Task	Pass Summary	Conditional Pass Summary	Fail Summary
Q000000704	HPwES; EmPower-HP; EmPower-ER	WQ	Gas/Propane DHW Tank	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q000000705	HPwES; EmPower-HP	WQ	Gas/Propane Tankless DHW	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q000000706	HPwES; EmPower-HP	WQ	Indirect-Fired DHW Tank	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q000000707	HPwES	WQ	Oil DHW Tank	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q000000708	HPwES; EmPower-HP	WQ	Solar DHW Heater	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q000000709	HPwES	WQ	Air Source Heat Pump	Ancillary Equipment Installed	1	True	False	True		All ancillary equipment related to the installed furnace must be installed as contracted for.		
Q000000710	HPwES; EmPower-HP	WQ	Blower Door Testing	Air Leakage Reduction Target Achieved	3	False	True	True		Inspector's cfm50 number indicates the contractor achieved their contracted air leakage reduction target within 10%. Mark this task as N/A if air sealing was a contracted measure but no quantitative cfm50 reduction was given.	Inspector's cfm50 number indicates the contractor achieved at least 80% of their contracted air leakage reduction target. Mark this task as N/A if air sealing was a contracted measure but no quantitative cfm50 reduction was given.	Inspector's cfm50 number indicates the contractor achieved less than 80% of their contracted air leakage reduction target. Mark this task as N/A if air sealing was a contracted measure but no quantitative cfm50 reduction was given.
Q000000711	HPwES; EmPower-HP; EmPower-ER	AQ	Recommendations	CO Detector	1	False	True	False	There is no carbon monoxide detector in home. At least one CO detector meeting UL-2034 requirements shall be installed according to manufacturer's instructions in every home with an attached garage and/or combustion appliances. It is recommended that additional CO detectors are installed, as needed, to provide a separate detector for each floor of the building	Mark N/A for HPwES and EmPower HP. Use this task for EmPower ER jobs: At least one CO detector meeting UL-2034 requirements shall be installed according to manufacturer's instructions in every home with an attached garage and/or combustion appliances.		