



New Jersey
Home Performance with ENERGY STAR®
 Home Performance Audit/ Software Data Collection-2011



Customer: _____
 Street: _____
 City: _____ Zip: _____
 Phone: (Home): (_____) _____ - _____
 Phone: (Work): (_____) _____ - _____
 Owner: Yes No/ Name: _____
 Phone: (_____) _____ - _____
 Multi-Fam Dev: _____
 Bldg: _____ Unit #: _____ #Units/Bldg: _____

Contractor: _____
 Technician: _____
 Date: _____

- Cash-back Incentive only
 - Air Seal, Insulation (may include duct sealing & Insulation)
 - Air Seal, Insulation, HVAC- must achieve 20%+ TES
- Cash-back & 0% Loan (must achieve 20%+ savings)
- Multi-Family Building Project

Multi-family for buildings with 5+ dwelling units- Whole building must be addressed as a Project- Not eligible for Auto-proceed

Fuel Billing Information: Must submit 12 consecutive months of Utility/ Deliverable fuel bills (electric, natural gas, oil, and/or propane). Must submit 12 consecutive months, or extent of occupation if <12 months, of all energy usage for dwelling. Current Utility bill with 12-month usage graph acceptable to submit.

BPI Health & Safety Requirements: ANY ISSUES IDENTIFIED BELOW, AS “NEEDS WORK” MUST BE ADDRESSED PRIOR TO INSTALLING ANY ENVELOPE MEASURES. **Comments:**

No Unvented fossil fuel appliances	<input type="checkbox"/> OK	<input type="checkbox"/> Remove/ Disable	
No Loose Asbestos Like Materials	<input type="checkbox"/> OK	<input type="checkbox"/> No Blower Door Tests	
No Visible signs of Active Mold/ High Moisture	<input type="checkbox"/> OK	<input type="checkbox"/> Requires Remediation	
No Exhaust fans vent to attic- vented outside with wall/ roof termination, pitched ¼ inch per ft, insulated R-7 in unconditioned	<input type="checkbox"/> OK	<input type="checkbox"/> Requires Repairs	
Dryer Properly Vented to outside- vented to outside with semi-rigid metal, insulated R-7 in unconditioned space	<input type="checkbox"/> OK	<input type="checkbox"/> Requires Repairs	
Existing Carbon Monoxide Alarm	<input type="checkbox"/> OK	<input type="checkbox"/> Must Install	
No Fuel Leaks	<input type="checkbox"/> OK	<input type="checkbox"/> Requires Repairs	
Passed CAZ Worst-Case Depressurization Testing	<input type="checkbox"/> OK	<input type="checkbox"/> Requires Repairs	
Passed all Worst-Case Spillage, CO, and Draft Tests	<input type="checkbox"/> OK	<input type="checkbox"/> Requires Repairs	

Moisture Survey: This checklist is provided for evaluating the moisture load of a home:

- | | | |
|---|--|--|
| <input type="checkbox"/> PROPER SIZED GUTTERS ON HOUSE | <input type="checkbox"/> NO INDOOR POOL, HOT TUB, POND, ETC. | <input type="checkbox"/> FOUNDATION DRAINAGE SYSTEM |
| <input type="checkbox"/> GUTTERS ARE NOT CLOGGED | <input type="checkbox"/> NO UNVENTED COMBUSTION APPLIANCES | <input type="checkbox"/> VAPOR BARRIER ON EXPOSED DIRT |
| <input type="checkbox"/> GUTTER RUN-OFFS EXTEND AWAY | <input type="checkbox"/> CENTRAL DEHUMIDIFICATION SYSTEM | <input type="checkbox"/> SUMP PUMP OPERABLE |
| <input type="checkbox"/> PROPER FOUNDATION GRADING | <input type="checkbox"/> WHOLE HOUSE VENTILATION PRESENT | <input type="checkbox"/> SUMP PUMP PIT HAS TIGHT COVER |
| <input type="checkbox"/> ADEQUATE ATTIC PASSIVE VENTS | <input type="checkbox"/> PROPER CONTROL OF HUMIDIFIER | <input type="checkbox"/> HVAC CONDENSATE DRAINS OUTSIDE |
| <input type="checkbox"/> ATTIC VENT HIGH & LOW, NOT BLOCKED | <input type="checkbox"/> HOMEOWNER PROPER USE OF HUMIDIFIER | <input type="checkbox"/> ADEQUATE CRAWL VENTILATION |
| <input type="checkbox"/> EXHAUST FANS TERMINATE OUTSIDE | <input type="checkbox"/> SOURCE VENTILATION BATHROOM | <input type="checkbox"/> BSMT/ CRAWLMECHICAL VENTILATION |
| <input type="checkbox"/> NO ROOF LEAKS | <input type="checkbox"/> SOURCE VENTILATION KITCHEN | <input type="checkbox"/> DRYER VENT TERMINATES OUTSIDE |

Home Performance with ENERGY STAR

Building Model- Program Software Building Model Data Collection

Building Layout	Orientation: Front entrance of house faces:	<input type="checkbox"/> North <input type="checkbox"/> NE <input type="checkbox"/> East <input type="checkbox"/> SE <input type="checkbox"/> South <input type="checkbox"/> SW <input type="checkbox"/> West <input type="checkbox"/> NW
	Attachment: There is another dwelling attached to the following building surfaces (e.g. Townhomes, Rowhomes, Duplex)	<input type="checkbox"/> N/A <input type="checkbox"/> Above <input type="checkbox"/> Below <input type="checkbox"/> Front <input type="checkbox"/> Left <input type="checkbox"/> Back <input type="checkbox"/> Right
	Buffered Walls: The following walls are at least partially buffered by an unconditioned space (e.g., garage, sunroom)	<input type="checkbox"/> N/A <input type="checkbox"/> Front <input type="checkbox"/> Left <input type="checkbox"/> Back <input type="checkbox"/> Right
	Walls: The building has <u>Above Grade</u> walls that are	<input type="checkbox"/> Wood Frame <input type="checkbox"/> Balloon <input type="checkbox"/> Platform <input type="checkbox"/> Masonry
	Floors: Dwelling has floors that are over (check all that apply) (Uninsulated heating distribution in the basement = heated basement)	<input type="checkbox"/> Unheated Basement <input type="checkbox"/> Unheated Crawlspace <input type="checkbox"/> Slab <input type="checkbox"/> Heated Basement <input type="checkbox"/> heated Crawlspace <input type="checkbox"/> Overhang <input type="checkbox"/> Other unconditioned space (e.g. garage)
	# Conditioned Floors <input style="width: 50px; height: 20px;" type="text"/> <i>(Full Stories Above Grade)</i> <i>Note: Software- Only include the above grade sq ft and above grade volume on the Building Model Layout screen.</i>	Conditioned Area (sq. Ft.)- Above Grade: <input style="width: 80px;" type="text"/> sq ft ----- Basement: <input style="width: 80px;" type="text"/> sq ft <i>(Do not include the Basement sq ft or Basement Volume in the Software)</i> Conditioned Volume (cu. ft.)- Above Grade: <input style="width: 80px;" type="text"/> cu ft Basement: <input style="width: 80px;" type="text"/> cu ft Total Volume (Use for BAS): <input style="width: 80px;" type="text"/> cu ft
Shell Basics	Infiltration Assessment: <i>(Estimated from Visual Inspection or Measured by Blower Door)</i>	<input type="checkbox"/> <u>Low infiltration</u> (some attic air sealing already completed) <input type="checkbox"/> <u>Medium infiltration</u> (typical NJ home- no attic air seal completed) <input type="checkbox"/> <u>High infiltration</u> (Balloon framed- major attic bypasses) <input type="checkbox"/> <u>Measured</u> <input style="width: 60px;" type="text"/> CFM50 <i>(from page #6)</i>
	Windows: <i>(Predominant window type)</i> Glazing: <i>(Check only one Type & Frame)</i>	<input type="checkbox"/> Single pane <input type="checkbox"/> Single w/ storm <input type="checkbox"/> Double pane <input type="checkbox"/> Double w/ low-e <input type="checkbox"/> Wood <input type="checkbox"/> Vinyl <input type="checkbox"/> Metal <input type="checkbox"/>
	Frame: Attic/ Roof: Insulation: <i>(Based on info recorded on page #7)</i> Condition: Ventilation:	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> < R-19 <input type="checkbox"/> R19 – R38 <input type="checkbox"/> R38+ <input type="checkbox"/> R-____ <input type="checkbox"/> Good, no noticeable voids <input type="checkbox"/> Fair, small voids <input type="checkbox"/> Poor, large voids <input type="checkbox"/> None <input type="checkbox"/> Low <input type="checkbox"/> Code (default) <input type="checkbox"/> High <input type="checkbox"/> Don't know
	Thermal Boundary Construction/ Insulation: <i>(Based on info recorded on page #7)</i>	
Shell Details	Exposed wood frame walls (Above Grade)	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> R-____
	Exposed masonry walls (Above Grade)	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> R-____
	Buffered walls (Between House and Garage)	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> R-____
	Exposed floors (overhangs)	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> R-____
	Buffered floors (Room over Garage)	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> R-____
Foundation Construction/ Insulation: <i>(Based on info recorded on page #7)</i>		
	Basement masonry walls	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> R-____
	Crawlspace masonry walls	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> R-____
	Slab	<input type="checkbox"/> N/A <input type="checkbox"/> None <input type="checkbox"/> <R11 <input type="checkbox"/> R11+ <input type="checkbox"/> Unknown
Demographics: (# Occupants)		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> _____

Home Performance with ENERGY STAR

Mechanical Systems:

Outdoor Temp: _____ °F	Indoor Ambient CO: _____ ppm						
Minimum Draft at Outdoor Temp: (Circle one)							
20°/-2.3pa	30°/-2.0pa	40°/-1.7pa	50°/-1.5pa	60°/-1.3pa	70°/-1.0pa	80°/-0.7pa	90°/-0.5pa
CO Limits:		0 to 25ppm = OK		26 to 100ppm = Recommend Service		>100ppm= Required Service	

Fuel Leaks? No Yes: _____

Combustion Appliance Testing: (Other appliances: gas logs, space heater, ovens, etc.)

Combustion Appliance (Write-in)	CO ppm Un-Diluted	Ambient CO ppm	Vented to Outside
	ppm <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	ppm	<input type="checkbox"/> No <input type="checkbox"/> Yes
	ppm <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	ppm	<input type="checkbox"/> No <input type="checkbox"/> Yes
Oven <input type="checkbox"/> Electric <input type="checkbox"/> Gas	ppm <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	ppm	<input type="checkbox"/> No <input type="checkbox"/> Yes

CAZ Depressurization Zone #1 Limit: Location: _____ (Circle the limit below)

(Natural draft individual DHW = -2) (Natural draft heater or common with natural draft DHW = -3) (Induced draft heater common with natural DHW = -5)
 (Induced draft individual heater = -15) (Powered vented DHW = -15) (Oil w/ barometric damper = -5) (Oil w/ high-static burner = -15)

Note: If you propose to ORPHAN the DHW, the limit at time of Test-out will be -2.0

- Worst Case: Bath exhaust Fans Kitchen Exhaust Clothes Dryer Attic Powered Ventilators Central Vacuum
 Air Handler/s Bed Doors (+ Closed/ - Open) Basement Door Other Interior Doors

Base Pressure Pascals (Fans off) CAZ WRT Outside	Worst Case Pres. Pa (Fans on) CAZ WRT Outside	Net Pressure Change Pascals (Worst-Case Pressure) (Base to Worst Case) (CAZ Depressurization)
Pa.	Pa.	Pa. <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair

Water Heater (DHW):

Default Values: R-value = 5 Energy Factor: Gas = 0.54 Oil = 0.51 Elec = 0.88

Location	≅ Age	Condition	R-value	Gallons	Energy Factor	DHW- Hot Water
		<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor				
Type	Fuel	Venting	Common vented w/ heat?			
			<input type="checkbox"/> No <input type="checkbox"/> Yes			
			Will Be Orphaned?			
			<input type="checkbox"/> No <input type="checkbox"/> Yes (CAZ limit = -2.0)			

Combustion Testing:

N/A- Power/ Sealed Vent	Spillage (<1 minute)	CO (5 minutes) Undiluted	Draft (5 minutes) In Vent
Worst Case (Fans On)	<input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	ppm <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	pa <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair
Natural (if fails worst-case)	<input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	ppm <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	pa <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair

Note: You must record the CO ppm and draft pa pressure.

Home Performance with ENERGY STAR

CAZ Depressurization Zone #2 Limit: Location: _____ (Circle the limit below)

(Natural draft Individual DHW = -2) (Natural draft heater or common with natural draft DHW = -3) (Induced draft heater common with natural DHW = -5)
 (Induced draft individual heater = -15) (Powered vented DHW = -15) (Oil w/ barometric = -5) (Oil w/ high-static burner = -15)

Worst Case: Bath exhaust Fans Kitchen Exhaust Clothes Dryer Attic Powered Ventilators Central Vacuum
 Air Handler/s Bed Doors (+ Closed/ - Open) Basement Door Other Interior Doors

Base Pressure Pascals (Fans off) CAZ WRT Outside	Worst Case Pres. Pa (Fans on) CAZ WRT Outside	Net Pressure Change Pascals (Worst-Case Pressure) (Base to Worst Case) (CAZ Depressurization)
Pa.	Pa.	Pa. <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair

Heating System #2:

Location	% Load	% Space	Btu (output)	Make/ Brand	Model #	≅ Age/ Year	Heating / Cooling	
<input type="checkbox"/> Furnace <input type="checkbox"/> Wall <input type="checkbox"/> Boiler <input type="checkbox"/> HTP <input type="checkbox"/> Elect Resist <input type="checkbox"/>								
Type	Fossil Fuel	Details	Venting					
	<input type="checkbox"/> Nat Gas <input type="checkbox"/> Propane <input type="checkbox"/> Oil	<input type="checkbox"/> Pilot (-71%) <input type="checkbox"/> Condensing (90%) <input type="checkbox"/> <1984 Low speed (1725rpm) <input type="checkbox"/> >1984 High speed (3450rpm)	<input type="checkbox"/> Electronic Ignition (74%) <input type="checkbox"/> Induced Draft (80%) (use- Power Combustion)			<input type="checkbox"/> Atmospheric <input type="checkbox"/> Sealed combustion <input type="checkbox"/> Induced Draft- (use Power vented at unit)		

Combustion Testing: Turn Heater On: (Turn up t-stat +10 degrees)

N/A- Power/ Sealed Vent	Spillage (<1 minute)	CO ppm (5 minutes) Undiluted	Draft pa (5 minutes) In Vent
Worst Case (Fans On)	<input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	ppm <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	pa <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair
Natural (if fails worst-case)	<input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	ppm <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair	pa <input type="checkbox"/> Pass <input type="checkbox"/> Fail requires repair

Heating Distribution System:

Columns for supply/ return MUST total 100%

Type	Hydronic OR-	Air / Ducts	% of Total DUCT System is Located in Following areas		% Supply	% Return	R-value	Heating/ Cooling- Ducts
	<input type="checkbox"/> Baseboard <input type="checkbox"/> Radiator <input type="checkbox"/> Steam __ pipe <input type="checkbox"/> Radiant	<input type="checkbox"/> Regular Velocity <input type="checkbox"/> High velocity (3" ducts) <input type="checkbox"/> ECM Motor <input type="checkbox"/> Gravity	DUCKS OUTSIDE	Attic <input type="checkbox"/> Poorly vented <input type="checkbox"/> Well vented Vented Crawlspace <input type="checkbox"/> Crawlspace Ceiling Insulated Enclosed crawlspace <input type="checkbox"/> Crawlspace Ceiling Insulated <input type="checkbox"/> Crawlspace Walls Insulated Garage			R- R- R- R-	
			DUCKS INSIDE	Conditioned Space- Basement			N/A	
Duct Leak to Outside		<input type="checkbox"/> Software Defaults (25% of system airflow)		<input type="checkbox"/> Duct Blaster Result (Attach Testing results)				

Cooling System #2:

Type:	<input type="checkbox"/> Central A/C <input type="checkbox"/> Heat Pump <input type="checkbox"/> Mini-Split ductless <input type="checkbox"/> None						Ht / Cool
Location of Indoor coil	% Load	% Space	Capacity	Make/ Brand	Outdoor Model #	≅ Age/ Year	

Cooling Duct System: Shared with Heat System - No Yes-Skip

Columns for supply/ return MUST total 100%

Type	Air / Ducts	% of Total DUCT System is Located in Following areas		% Supply	% Return	R-value	Heating/ Cooling- Ducts
	<input type="checkbox"/> Regular Velocity <input type="checkbox"/> High velocity (3" ducts) <input type="checkbox"/> ECM Motor <input type="checkbox"/> Gravity	DUCKS OUTSIDE	Attic <input type="checkbox"/> Poorly vented <input type="checkbox"/> Well vented Vented Crawlspace <input type="checkbox"/> Crawlspace Ceiling Insulated Enclosed crawlspace <input type="checkbox"/> Crawlspace Ceiling Insulated <input type="checkbox"/> Crawlspace Walls Insulated Garage			R- R- R- R-	
			DUCKS INSIDE	Conditioned Space- Basement			N/A
Duct Leak to Outside		<input type="checkbox"/> Software Defaults (25% of system airflow)		<input type="checkbox"/> Duct Blaster Result (Attach Testing results)			

Home Performance with ENERGY STAR

Insulation/ Air Sealing:

(Must record details for minimum 1-Attic/ Ceiling, 1-Above Grade Wall, and 1-Foundation for Building Model)

Insulation Types:	Quality	Voids In Software
<i>N = None</i> <i>ICY = Icynene</i> <i>CE = Cellulose</i>	<u>Good</u> = No Gaps or Compression	None
<i>FG = Fiberglass Batt</i> <i>RF = Rigid Foam Board</i> <i>P = Spray polyurethane</i>	<u>Fair</u> = > 2 ½% to 5 % of area has no insulation	-0.25"
<i>BFG = Blown FG</i> <i>CR = Cross Batt</i> <i>R= Rock/ Mineral wool</i>	<u>Poor</u> = not enclosed in walls	-0.50"

Attic Venting Rate:

Code = 1 sq ft net free area of vent for each 300 sq ft of attic floor- (Gross vent area / 2 ≈ net free area)

Attic Floor sq ft _____ / 300 = _____ x 144 = _____ (A) Minimum REQUIRED square inches net free vent area Existing square feet of gross vent area= _____ x 72 = _____ (B) Estimated square inches net free vent area (A) _____ - (B) _____ = required net free vent area square inches
--

Attics/ Ceilings: Flats/ Slopes/ Kneewall

Location	Framing	Area Sq. Ft.	Ins. Type	Thickness	Quality	R- Value	Ins.- Attic / Roof
	2 x @ O.C.			In.	G F	R-	
	2 x @ O.C.			In.	G F	R-	
	2 x @ O.C.			In.	G F	R	
Kneewalls	2 x @ O.C.			In.	G F P	R	

✓ = NEEDS WORK

<input type="checkbox"/> SEAL TOPPLATES TO DRYWALL	<input type="checkbox"/> TIN & FIRE CAULK AT FLUE/ CHIMNEY CHASE
<input type="checkbox"/> SEAL TOPPLATE PENETRATIONS	<input type="checkbox"/> INSULATE AND SEAL ACCESS <input type="checkbox"/> PANEL <input type="checkbox"/> STAIR
<input type="checkbox"/> DRAFTBLOCK AT CHASES/ SOFFITS/ DROPS	<input type="checkbox"/> BOX RECESSED LIGHTS (DRYWALL, METAL, OR DUCTBOARD)
<input type="checkbox"/> DUCT EXHAUST FANS TO OUTSIDE	<input type="checkbox"/> FIRE BLOCK GAP AT FIRE WALLS (REQUIRES CODE APPROVAL)

Above Grade Walls: Siding Type:

Location	Framing	NET Area Sq. Ft.	Ins. Type	Thickness	Quality	R- Value	Insulation- Wall
Exterior	2 x @ O.C.			In.	F	R-	
	2 x @ O.C.			In.	F	R-	
	2 x @ O.C.			In.	F	R-	
Garage Wall (Buffered)	2 x @ O.C.			In.	F	R-	

Framed Floors:

Location	Framing	Area Sq. Ft.	Ins. Type	Thickness	R- Value	Ins.- Foundation / Floor
Overhangs	2 x @ O.C.			In.	R-	
Over Garage (Buffered)	2 x @ O.C.			In.	R-	
Over Crawlspace (Buffered)	2 x @ O.C.			In.	R-	
Band Joists (Buffered)	2 x @ O.C.			In.	R	
	2 x @ O.C.			In.	R	

Foundation Walls & Slabs:

Location/ Type	Length- Linear Feet	Area- Square Feet	Ins. Type	Thickness	R- Value	Ins.-Foundation
Basement Walls (Buffered)				In.	R-	
Crawlspace Walls (Buffered)				In.	R-	
				In.	R	