

Pennsylvania Residential Energy Provisions Worksheet

PROJECT Address _____
 Contractor _____
 Permit # _____
 Date _____ Date of Plan _____

Type of Dwelling: One or two family dwelling Townhouse

Compliance Path

If using IECC, How are you documenting compliance?

IECC
 REScheck Software
 REScheck Package Generator
 Other

IRC

PA-Alternative Residential Energy Provisions

Thermal Enclosure

	Required	Actual
Windows/Doors (U-value)		
Windows	U- 0.35	U-
Skylights	U- 0.60	U-
Other _____	U-	U-
Glazed Doors (> 50% glass)	U- 0.50	U-
Opaque Doors (≤ 50% glass)	U- 0.35	U-
Exterior Wall Insulation (R-Value)		
Cavity	R- 13	R-
Continuous (Insulated Sheathing)	R- 10	R-
Roof (R-value)		
Standard Truss or Rafter	R- 38	R-
Raised Heel/Energy Truss	R- 38	R-
Cathedral Ceiling	R- 30	R-
Floors (R-Value)		
Over Unconditioned Space (unconditioned basements, vented crawlspaces, garages, etc.)	R- 19	R-
Floors Exposed to Outside Air	R- 30	R-
Crawlspace Walls (Non-vented Crawlspace)		
Cavity	R- 13	R-
Continuous (Insulated Sheathing)	R- 10	R-
Basement Walls - % above ground		
Front _____ %	If ≤ 50% R-10 Continuous R-13 Cavity If > 50% R-19 or R-13+5 R-10 @ 2ft <small>Add R-5 if heated slab</small>	R-
Rear _____ %		R-
Left Side _____ %		R-
Right Side _____ %		R-
Slab Insulation (required if slab is < 12" below grade)		
	R-10 @ 2ft	R- __ @ __ ft

Required for REScheck package generator + software:

Gross area of exterior walls	①	_____
Gross area of windows & glazed doors	②	_____
Window to Wall Area: $2 \div 1 = \underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$		

Recessed Light Fixtures Type: ASTM E-283
 Other (list) _____

Mechanical

Equipment Efficiency (For PA Alternative Trade-off; REScheck Performance Alternative)

Furnace _____ AFUE
 Air Conditioner _____ SEER
 Heat Pump _____ HSPF

Duct Insulation

Location of Duct	Compliance Option	
	IECC+IRC	PA-Alt
Outside of the Building	8	8
Within Insulated Outside Walls or Floors ¹	8 ¹	8 ¹
Unconditioned Attics	8	8
Unconditioned Basements	8	6
Vented Crawlspace, and Garages	8	8

Note: ¹ R-6 allowed in Floor Trusses

Pipe Insulation: R-2 (minimum)

Applies to HVAC piping < 55°F or >105°F, and Circulating Hot Water Piping

PA- Alternative Residential Energy Provisions – Trade-offs Section PA 502

Tradeoff	Component	Reduced R-value	Minimum Equipment Efficiency ^{c,d}					
			South		Central		North	
			AFUE ^a	HSPF ^b	AFUE ^a	HSPF ^b	AFUE ^a	HSPF ^b
A	Walls between conditioned and unconditioned spaces ^e	R-13						
	Floors over unconditioned basements	R-19	NA	NA	83	8.3	84	9.0
B	Duct insulation Unconditioned Basement	R-4	83 ^g	8.6	84 ^g	9.1	85 ^g	10.6
	Attic & Exterior Walls ^f	R-6	81	8.6 ^g	83 ^g	9.0 ^g	83	10.0 ^g
C	Walls between conditioned and unconditioned spaces ^e	R-13						
	Floors over unconditioned basements	R-19						
	Duct insulation ^g Unconditioned Basement	R-4	NA	NA	89	9.8	91	12.2
	Attic & Exterior Walls ^f	R-6						

- a. Annual Fuel Utilization Efficiency (AFUE) applies to oil and gas furnaces and boilers.
- b. Heating Seasonal Performance Factor (HSPF) applies to heat pumps.
- c. Any Seasonal Energy Efficiency Ratio (SEER) may be used for air conditioning equipment.
- d. For buildings with multiple furnaces, boilers or heat pumps having different AFUE or HSPF values, use the capacity weighted average of the efficiency ratings of the installed equipment to determine whether the building complies with the minimum equipment performance requirement.
- e. Examples include, but are not limited to, walls between the house and garage, and basement stairway walls and ceiling when the floor above an unconditioned basement is insulated.
- f. Ducts in exterior walls with insulated sheathing of R-5 or more do not need to be insulated.
- g. If ducts are located in both the attic and unconditioned basement, R-6 can be used for the attic ducts and R-4 can be used for the unconditioned basement ducts.