

APPENDIX T-2

STATE ENERGY EFFICIENCY REQUIREMENTS FOR RESIDENTIAL HEATING EQUIPMENT

STATE	1. HVAC EQUIPMENT SIZING	2. HVAC EQUIPMENT EFFICIENCIES			3. WATER HEATER EFFICIENCIES		4. ADDITIONAL HVAC & DHW PROVISIONS/COMMENTS
		Gas/Oil Forced Air Furnaces <400,000 Btu/h input	Gas/Oil Gravity Furnaces & Other Vented Equipment <225,000 Btu/h input	Gas/Oil Boilers <400,000 Btu/h input	Electric <120 gals capacity & <12kW input	Gas/Oil <75,000 Btu/h input	

1. HVAC EQUIPMENT SIZING - Where HVAC equipment sizing is based on loads but no specific oversizing limitations are provided, the code only requires the loads be calculated as noted for the purpose of HVAC system sizing but no sizing criteria are provided.

2. HVAC EQUIPMENT EFFICIENCIES -

Minimum combustion efficiency (E_c) for Gas and Oil Fired Forced Air Furnaces with input capacities <400,000 Btu/hr.

Minimum combustion efficiency (E_c) for furnaces with input capacities <225,000 Btu/hr.

Minimum combustion efficiency (E_c) for Gas and Oil Fired Boilers with input capacities <400,000 Btu/hr.

Heating equipment combustion efficiencies are specified as combustion efficiency (E_c) and steady state combustion efficiency (E_{SS}). Combustion efficiency (E_c) is defined as 100 percent minus stack losses (ASHRAE 90-75 and 1977 MCHC), while steady state combustion efficiency (E_{SS}) is in accordance with the U.S. Department of Energy test procedures (ASHRAE 90A-1980 and 1983 MFC). Depending upon the basis of the energy code, E_c or E_{SS} criteria will be provided.

3. WATER HEATER EFFICIENCIES -

Maximum standby loss (SBL) criteria for Electric Water Heaters with <120 gallon capacity (V) and <12kW input.

Minimum recovery efficiency (E_r) and maximum standby loss (SBL) criteria for Gas and Oil Fired Water Heaters with <75,000 Btu/hr. input.

4. Additional Provisions and/or Comments - as necessary to explain the HVAC, DHW and energy distribution criteria.

(P) States having minimum efficiency standards.

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Source: Directory and Compilation of Technical Administrative Requirements in Energy Codes for New Building Construction Used Within the United States, David R. Conover, Carolyn A. Fitch, RI, National Conference of States on Building Codes and Standards, 1984.