



Builder Guidelines – Mechanical Systems

Feature	Minimum <small>(*To qualify for HVAC Equipment Incentives)</small>
Air Conditioner Efficiency	ENERGY STAR 14 SEER and 12.0 EER or higher*
Air Conditioner and Heat Pump Sizing ¹	Within 15% or next available size*
Air Conditioner Documentation (Quality Installation Form) ²	Proper charge, airflow & ACCA Manual J Sizing*
Ground Source Heat Pump ³	2.8 COP/13 EER*
Air-Source Heat Pump	8.5 HSPF/14 SEER*
Gas Furnace/Boiler Efficiencies	ENERGY STAR 90% AFUE (furnace) or 85% AFUE (boiler), as stated in the Gas Appliance Manufacturers Association (GAMA) Consumer's Directory of Certified Efficiency Ratings or higher*
Duct Sealing ^{4,5,6} (Required for homes completed after Dec. 31, 2006**)	Leakage to outside <6% of conditioned floor area (i.e., 6 cfm per 100 sq. ft.)
Duct Insulation in Unheated Spaces	R-6
Electric Water Heater	.90 Energy Factor (E.F.)
Gas Water Heater	.62 Energy Factor (E.F.) or Indirect-Fired Tank with Boiler
ENERGY STAR Lighting	At least 3 ENERGY STAR labeled fixtures required in high use locations (more than 2 hours per day)
Mechanical Ventilation	<p>The Home Energy Rating System is based on compliance with the ASHRAE 62.2 standard. All homes are required to have automatically controlled mechanical ventilation ducted to the outside and may be of the following types:</p> <ul style="list-style-type: none"> • ENERGY STAR qualified exhaust fan systems, including ceiling, wall mounted, or remotely mounted in-line fans; • HVAC integrated systems, with ECM type air handler (Electronically Commutated Motor); • HRV (Heat Recovery Ventilator) or ERV (Energy Recovery Ventilator) systems. <p>A source ventilation system for each bathroom is highly recommended, as well as an appropriately sized and vented kitchen fan or range hood.</p>

¹For central air conditioners, exceeding the ACCA Manual J calculated load by more than 15%, or the next available size, will disqualify the home from participation. For heat pump sizing requirements contact your program representative.

²**QUALITY INSTALLATION FORMS MUST BE PROPERLY FILLED OUT AND RETURNED TO YOUR PROGRAM REPRESENTATIVE PRIOR TO FINAL INSPECTION.**

³Two-speed systems are recommended to ensure efficiency and performance.

⁴Duct leakage will be measured with a duct air tightness tester.

⁵**ALL SEAMS AND JOINTS ON DUCTS MUST BE ADEQUATELY SEALED WITH MASTIC COMPOUND.**

⁶**THE HVAC SYSTEM'S SUPPLY AND RETURNS MUST BE FULLY DUCTED.**

** Unless permitted by June 30 and completed by December 31, 2006