



# DOE Challenge Home

(Program website: [http://www1.eere.energy.gov/buildings/residential/ch\\_guidelines.html](http://www1.eere.energy.gov/buildings/residential/ch_guidelines.html) )

The Department of Energy’s Challenge Home is a certification for homes that are substantially more energy-efficient, comfortable, healthy and durable than homes built to code standards. The certification builds on the EPA’s ENERGY STAR, Indoor airPLUS and Water Sense certifications with some enhancements.

Qualifying homes will have many of the following features:

- ENERGY STAR windows, heating/cooling/water heating systems, fixtures, appliances and lighting
- Insulated and conditioned basements
- Thermally-broken walls, R49 ceilings
- Air sealed to < 3 ACH50
- Duct systems entirely in conditioned space
- Balanced ventilation with heat recovery
- Efficient plumbing design

The table below summarizes the requirements for the DOE Challenge Home certification. Please call us or visit the program website for more details.

Performance Factor	Requirement
ENERGY STAR Certification	ENERGY STAR Version 3 certification
HERS Index	HERS Index excluding PV $\leq$ Challenge Home Target Index Target Index will be in low 50’s for most homes. Size adjustment to index required for larger homes. PV may be used to meet size adjustment factor.
Envelope	ENERGY STAR windows, $U \leq 0.30$ Insulation per 2012 IECC (Ceilings R49, walls R20 or R13+R5, floors R30, slabs R10)
Duct Systems	Ducts inside conditioned space Ducts in vented attics allowed if encapsulated in R10 closed cell foam, buried under insulation and sealed to 3 cfm25/100 sf total duct leakage.
DHW System	Designed so that $\leq 0.6$ gallons flows from any fixture before HW is delivered. Manually and motion-sensor activated recirculation systems allowed.
Fixtures and appliances	ENERGY STAR refrigerators, dishwashers, clothes washers, bath exhaust and ceiling fans ENERGY STAR lighting in $\geq 80\%$ of fixtures
Indoor Air Quality	Indoor airPLUS certification

Qualifying homes are eligible for a \$500 incentive (\$250 for townhouses/multi-family homes) from the CT Energy Efficiency Fund Residential New Construction program.