Please note that this is an example of our rating only.

Please contact an Austin Energy Green Building representative to find out how to rate a project.

AUSTIN ENERGY GREEN BUILDING

SINGLE-FAMILY HOME RATING 2008.2

Update 5.20.08

0	
0	
Stars Achieved	No Stars

STAR LEVELS

1 Star	★	Basic Requirements (BR) + points: 0
2 Stars	★★	BR + points: 50
3 Stars	★★★	BR + 3.01, 2 or 3; 4.17, 4.18 or 4.19 + points: 75
4 Stars	★★★★	BR + 3-Star Requirements + 10.07 or 10.08 + points: 100
5 Stars	★★★★★	BR + 4-Star + 3.04, 3.05, 11.06, 11.08 + points: 125

RATING RESULTS

Total Points	0
Basic Requirements	Not Fulfilled
3-5 Star special measures met	
Square feet per ton of cooling	
TCV score	0

PROJECT INFORMATION

Submitter (Designer or Builder)

Contact | Phone

E-mail

Complete Mailing Address

Rater (if other than AEGB)

Contact | Phone

E-mail

Complete Mailing Address

Architect/Designer (if not submitter)

Phone

Contact

Builder (if not submitter)

Phone

Contact

Mechanical Contractor Phone

TCV Score | Contact

Electric Source Austin Energy

Describe: | Other

Water Source City of Austin

All rainwater

Describe other: Exterior-only rainwater

Describe: | Other

Wastewater City of Austin

Describe: | Other

Heating Gas furnace

Heat pump

Describe: | Other

Cooling Split-system AC

Mini-split system

Other: | Heat p'mp

Tons of cooling per unit: Unit 1

Unit 2

Unit 3

Unit 4

Total # of cooling tons: 0

Sq. ft. ***gross*** living space measured from outside of exterior walls

Sq. ft. ***net*** conditioned floor area derived from the Manual J calculation

Project Street Address (or Base Rating)

City | Zip

County | Subdivision

Austin building permit | Other

Approx. permit date | Lot size

Required-Rating Information

S.M.A.R.T. Housing

Mandatory (e.g. PUD agreement)

Minimum Star level required

Construction Type		Project Type	
Slab foundation		Single-Family	
Pier & beam		Duplex	
Wood frame		Condo	
Altern.exterior wall (describe)		New home	
		Renovation	
W'd frame roof		Addition: sf	
Altern. roof sys. (describe)		Begun as spec	
		Begun as custom	

To the best of my knowledge, this project meets the requirements for the Rating requested at time of submittal.

Submitter Name | **Date**

INSTRUCTIONS TO SUBMITTER (DESIGNER OR BUILDER)

A. Submit Rating and Manual J Report to Rater (AEGB staff or other approved Rater).

Projects requiring a ***mandatory*** Rating must receive an **AEGB Conditional Approval** for the Rating and Manual J report prior to construction.

For more information about all aspects of the Rating, see the "Guide to the Single-Family Rating": Rating Guide

1. **Fill in all applicable light-yellow cells.**
2. **Basic Requirements must be met for all Ratings.**
3. **Measures for Points:**
   If information is not known at time of submittal, leave cell blank and revise for final submittal. **If item is either/ OR, check only one.**
   If "Stars Achieved" does not match point total, a Basic or required Star level measure has not been met.
   If square feet per ton of cooling or TCV score do not meet requirements, Star Rating shown will not be awarded.
4. **Manual J Report:** submit complete report calculated according to the AEGB "Manual J Inputs for SF Homes". Manual J Inputs
5. **Production builders:** enter "Base Rating" in address cell above.
   See PRODUCTION tab below for instructions for pre-construction approval, inspections and final submittals.

B. Schedule inspections and submit documentation to Rater.

Note that AEGB Rating inspections do not substitute for inspections required by other jurisdictions to which submitter may be subject.

No inspections will be made until Rater has approved the Rating, the Manual J Report and (if applicable) has issued a Conditional Approval.

1. **Schedule a rough AEGB inspection** (post rough mechanical, insulation, air barrier and pre-drywall).
2. **Submit a copy of the home performance testing report and any other requested documentation.**
3. **Schedule an AEGB final inspection** (after all items have been implemented).

Items marked with dot pattern must be viewable at rough.

C. Complete the rating process.

1. **Rater will finalize Rating and send submitter an AEGB Certificate and Homeowner Packet.**
2. **Submitter agrees to convey Certificate and Homeowner Packet to the homeowner.**

Prelim		Man J		Conditional Approval		Rough Inspection		Testing	Test.	Final Inspect			Prem #
Date	By	Approv.	By	Date	By	By	Date	By	Appr'd	Date	By		

A green home is comfortable, efficient, durable, and healthy and safe for inhabitants, workers, and the planet.

A green home must be designed and constructed so all parts interact successfully with each other and their environment to manage heat, air and moisture. Since it is difficult to address all crucial design and construction matters within a rating, please see the following publication from the Energy and Environmental Building Association (EEBA) for effective construction details:

Builder's Guide for Hot-Humid Climates and the Water Management Guide. Purchase at Builders Guide

A. Basic Requirements

See "Guide to the Single-Family Rating" for explanations of all measures. Rating Guide

Place an x in each box. All items must be included in any rated home.

☐ 1 **Energy-efficient home design: minimum of 500 sq. ft. of living space per ton of cooling as calculated by correct Manual J, based on site orientation, plans and specifications**

Use calculation design inputs for Austin, TX, and "GBP Manual J Inputs for Single-Family Homes." Manual J Inputs

☐ 2 **Cooling and heating equipment minimum efficiency for split systems**

Cooling: 14.0 SEER/11.5 EER AC or heat pump
Gas furnace: ≥ 80 AFUE or Heat Pump ≥ 8.2 HSPF

Brand _____ SEER _____ +EER
Model _____ AFUE _____ /HSPF

☐ 3 **Window efficiency: ≤0.35 SHGC and ≤0.55 U-Value in Climate Zone 2** (Zone 3: ≤0.40 and ≤0.40)

Climate Zone _____

☐ 4 **Wall insulation--one of the following:**

Approved by: _____

☐ **a. Energy Star Grade 1 installation**
☐ **b. Batts + insulative exterior sheathing with R-value of ≥2.0, taped at seams** (unfaced batts preferred)
☐ **c. "Total fill" type (e.g. blown cellulose, BIBS, spray foam, SIPs)**

☐ 5 **Floor insulation over ambient or unconditioned space: ≥R-13 with air barrier**

☐ 6 **Blocking for grab bar installed in all showers and tub-shower combinations**

☐ 7 **Gas water heater minimum efficiency (EF): 40 Gal: 0.61; 50 Gal: 0.59; 60 Gal: 0.57; 80 Gal: 0.53; tankless: 0.80**
Or WH is solar thermal: Or if no gas available in right-of way, electric WH meets current Austin code requirements

☐ 8 **No unvented gas logs/fireplaces**

☐ 9 **Exhaust fans venting to outside for cooktop/stove/microwave and baths with tub or shower**

☐ 10 **Ceiling fans: minimum of 2 installed within heated and cooled space**

☐ 11 **A minimum of 75% of all lamps/bulbs are Energy Star-compliant**

☐ 12 **Low-VOC interior wall and ceiling paint: VOC ≤100 grams per liter or is CoA recycled paint**

Brand _____ Product _____ VOC gpl _____ Paint from CoA Household Hazardous Waste _____

For information on "Second Chance Paint": (512) 974-4343 CoA Recycled Paint

☐ 13 **Minimum of 2 toilets selected from current Austin Water Conservation Program Rebate list**

One per one-bath home; check list for available rebates CoA Toilet List

Brand _____ Model, type _____

Brand _____ Model, type _____

☐ 14 **Planting beds have a minimum depth of 6" of soil containing 25% compost (such as Dillo Dirt) and minimum depth of 2" organic mulch**

☐ 15 **A minimum of 90% of new plants are from current Grow Green plant list** Grow Green

☐ 16 **Current City of Austin IRC, IECC Codes and Amendments must be met, regardless of project location (including complete air barrier and restrictions on electric water heaters)** CoA Codes Scroll to Energy Code 2006

If you intend to obtain an Energy Star Rating, code-required testing must be done by a HERS rater.

☐ **All Basic Requirements Fulfilled**

B. Measures For Points

Place an x in the yellow column to the left of the items you are incorporating in your project.

If items are either/or, do not check both: points will subtract.

See far-left green column for star level requirements above One Star and S.M.A.R.T. Housing requirements.
Required star items are cumulative: e.g. all items required for a 3-Star Rating are required for a Four-Star Rating.

Star Requirements	Total Points	x		
SECTION 1: PLANNING PROCESS				
	3		1.01	AEGB Green by Design workshop attended by homeowner before completion of design stage
	3		1.02	AEGB Green by Design workshop attended by design staff +/or builder staff
	3		1.03	Documented design team meeting held in design stage (including owner, designer, builder, mechanical contractor)
SECTION 2: SITE SELECTION				
	3		2.01	Lot size is less than 5,750 sq. ft.
	3		2.02	Street, electricity, water and wastewater have been in place for a minimum of 25 years
	2		2.03	Public transit stop is within a 1/4 mile walk
	2		2.04	Grocery store is within a 1/2 mile walk
	2		2.05	Public hike and bike trail, green belt, or park is within a 1/2 mile walk
SECTION 3: DESIGN				
3	2		3.01	Energy-efficient design allows for a minimum of 600 sq. ft. of living space per ton of cooling if home is 1500 sq. ft. or larger (Smaller homes: square footage per ton must be approved by Rater for these points if 600 sf is not met)
	3		3.02	**OR** Home design allows for a minimum of 700 sq. ft. of living space per ton of cooling
	4		3.03	**OR** Home design allows for a minimum of 800 sq. ft. of living space per ton of cooling
5	3		3.04	Indoor cooling equipment is located within the thermal envelope
5	5		3.05	All duct work is located within the thermal envelope OR home has no duct work
	2		3.06	All water heaters in 1-story home located within 20 piped feet of appliances +/or fixtures they serve; 30 piped feet for 2-story
	1		3.07	No fireplace located within conditioned space
	2		3.08	Covered, usable front porch (minimum side dimension: 6'; minimum area: 100 sf)
	2		3.09	Covered, usable porch other than front porch (minimum side dimension: 6'; minimum area 100 sf)
	2		3.10	All roof overhangs project a minimum of 24" horizontally
	4		3.11	Overhang projection factor for all windows facing east and west is ≥0.5 — See projection factor calculation: Overhangs
	3		3.12	Windows designed for daylighting (e.g. high windows not requiring privacy treatment)
	2		3.13	Designed, effective cross-ventilation in main living areas
	2		3.14	Designed, effective stack ventilation (e.g. operable cupola, clerestory, or stairwell exhaust)
	2		3.15	Shading on east and west walls of living space for at least 50% of wall area (e.g. covered porch, pergola, trees)
	3		3.16	Total glazing area is no greater than 18% of conditioned floor area
	5		3.17	Glazing on east and west walls combined does not exceed 25% of total glazing area; glazing on west wall does not exceed 10% of west wall and glazing on east wall does not exceed 10% of east wall
	1		3.18	No skylights into conditioned space (solar tubes are acceptable)
	3		3.19	Garage is detached from the house or house has no garage
	2		3.20	**OR** Attached garage has exhaust fan with timer or passive vent openings installed 18" above floor
	2		3.21	Basic access to house provided according to *City of Austin Visitability Ordinance* — SMART Housing Rating Guide
	4		3.22	**OR** Accessibility provided according to *Barrier-Free Residential Construction Guidelines*
SECTION 4: MATERIAL EFFICIENCY AND CONSTRUCTION WASTE				
	4		4.01	Lot has more than one dwelling unit
	3		4.02	Existing home removed from site is reused (deconstructed and recycled/reused or relocated)
	4		4.03	Project is renovation of, and/or addition to existing home
	4		4.04	Home is factory-built modular construction placed on a permanent foundation — Make and model:
	3		4.05	Conditioned space: maximum of 1,500 sq. ft.
	4		4.06	**OR** Conditioned space: maximum of 1,200 sq. ft.
	5		4.07	**OR** Conditioned space: maximum of 900 sq. ft.
	2		4.08	Exterior structure dimensions are in modules of 4'
	2		4.09	Exterior wall system is constructed off-site (e.g. panelized wood frame, SIPs)
	2		4.10	**OR** Exterior wall system is ICF, AAC block, straw, earth or other AEGB-approved system
	2		4.11	**OR** Wall framing is by the "Optimum Value Engineering" or "advanced framing" method: employ a minimum of 3 measures:
				a. Exterior wall framing 24" o.c. / b. Interior wall framing 24" o.c. / c. Headers sized for loads / d. 2-stud corners and ladder blocking; drywall clips / e. No wood wall sheathing (corners excepted) / f. Window framing without jack studs
	1		4.12	Finger-jointed studs
	1		4.13	Roof framing system: engineered trusses or materials/products such as I-joists, truss joists, LVLs, SIPs

B. Measures for Points Continued

SECTION 4: CONTINUED

1		4.14	A minimum of 50% of framing or sheathing or decking material is SFI-certified engineered products or lumber	
2		4.15	A minimum of 50% of framing or sheathing or decking material is FSC-certified engineered products or lumber	
2		4.16	Use of reclaimed materials, such as doors, hardware, flooring: list in Section 12	
4		4.17	80% of excess lumber and drywall is recycled/reused (not landfilled); approved documentation required	Documentation
3 4		4.18	**OR** Minimum 40%-by-weight of waste is recycled/reused (not landfilled); approved documentation required	Documentation
4		4.19	**OR** Approved construction waste management plan; approved documentation for reuse/recycling required	
1		4.20	Concrete-truck wash-out managed to recycle concrete residue and treat wash-out water	

SECTION 5: INTEGRATED PEST MANAGEMENT

2		5.01	Sand or mechanical-barrier termite control system is used: OR structure is not termite-edible	
3		5.02	All wood framing is treated with borate to a minimum of 3 feet above the foundation; OR structure is not termite-edible	
1		5.03	All exterior wood-to-concrete connections are separated by metal or plastic fasteners/dividers (e.g. deck posts)	
1		5.04	All new plants, shrubs and trees have trunk, base or stem located at least 36" from foundation	

SECTION 6: THERMAL ENVELOPE AND MOISTURE CONTROL

See "Builder's Guide to Hot-Humid Climates" + "Water Management" for design and construction guidelines.
In Central TX, make wall system as air-tight as possible but vapor permeable and able to dry to both inside and outside.

2		6.01	Window U-value of 0.51 or lower	
2		6.02	Glazing has a SHGC of 0.30 or lower	
1		6.03	"Raised-heel"/"energy" roof trusses	
2		6.04	Vented attic system: continuous ridge and continuous soffit vents (no functioning gable vents)	
5		6.05	**OR** Closed/sealed attic system: unvented; polyurethane foam insulation at roof; minimum 5.5" depth	
3		6.06	"Total fill" insulation in walls (e.g. blown cellulose, BIBS, spray foam, SIPs)	
2		6.07	Insulation has no added formaldehyde	
2		6.08	Wall and attic insulation have average total-recycled-content of 75% minimum	
2		6.09	Roofing meets requirements of Energy Star; minimum 10-year warranty	Energy Star
4		6.10	Tile roof ____ or Metal roof ____	Cool Roofs
2		6.11	Gutter and downspout system directs stormwater away from foundation to landscaping or catchment system	
2		6.12	Blower door test performed results in envelope leakage no greater than 0.40	

SECTION 7: PLUMBING AND APPLIANCES

1		7.01	≥R-2 insulation of all water lines located outside the thermal envelope and in exterior walls	
2		7.02	Gas water heater is sealed-combustion/direct vent model (required if located in sealed attic)	
2		7.03	Gas water heater is tankless/on-demand; minimum 0.82 efficiency	
4		7.04	**OR** Water heater is solar thermal	
2		7.05	Push-button on-demand hot water recirculation system (not continuously-operating pump system)	
2		7.06	Toilet is dual-flush or HET model from current CoA toilet list (at least one)	
2		7.07	Toilet is ADA model from current CoA toilet list (at least one)	CoA Toilet List
3		7.08	All shower heads have maximum flow of 2.0 gallons per minute; no more than one shower head per shower or tub	
3		7.09	Clothes washer is from the current CoA Water Conservation WashWise list	CoA Washer List

SECTION 8: M ECHANICAL

1		8.01	Cooling tonnage does not exceed 5 tons	
2		8.02	**OR** cooling tonnage does not exceed 4 tons	
3		8.03	**OR** cooling tonnage does not exceed 3 tons	
4		8.04	**OR** cooling tonnage does not exceed 2 tons (If tonnage is lower than 2, write amount in Section 12.)	
5		8.05	Whole-house, ductless, mini-split heating and cooling system	Brand, model #:
3		8.06	Variable-speed air handler and minimum 600 sq. ft./ton of cooling	Brand, model #:
2		8.07	Variable-capacity compressor and minimum 600 sf/ton of cooling	Brand, model #:
3		8.08	Ground-source heat pump	
2		8.09	Gas furnace is sealed-combustion/direct-vent model (CoA requirement if in sealed attic)	Texas Gas Service
2		8.10	Hydronic space heat is supplied by gas water heater or is solar-assisted	
4		8.11	Sheet metal plenum and main trunk lines; any flex-duct take-offs are no longer than 10'	
2		8.12	Air-tight supply boots (ductboard or pre-fabricated)	
2		8.13	Ceiling registers are curved-blade type located high on walls or in ceiling	
1		8.14	Ductwork system is masked/sealed at supplies and returns during construction	
2		8.15	HVAC filter: ≥ 4" pleated-media, or electronic (not electrostatic); easily accessed (HVAC system designed for filter type)	
3		8.16	Mechanical ventilation with automatic damper + humidity sensor provides fresh air into return-air plenum	
1		8.17	Stand-alone hygrometer; OR thermostat has integral hygrometer or humidistat	
1		8.18	Energy Star programmable thermostat	
2		8.19	Air distribution system leakage no greater than 5% as ascertained by duct-blaster testing method	

B. Measures for Points Continued

SECTION 9: ELECTRICAL

2		9.01	Ceiling fans in all bedrooms	
2		9.02	Whole-house fan with insulated cover	
2		9.03	Bathroom exhaust fans are connected to humidistat or timer	
2		9.04	Recessed-can lighting fixtures do not break through the thermal envelope; OR no recessed-can fixtures are installed	
2		9.05	Energy Star Advanced Lighting Package requirements met	Advanced Lighting Package
2		9.06	Energy Star-qualified fixtures--≥5 from following list: appliances, light fixtures/luminaires, ceiling fans, +/or ventilation fans	
3		9.07	A minimum of 90% of lamps/bulbs are Energy Star-compliant	Energy Star lamps/bulbs
2		9.08	All exterior light fixtures are designed to reduce up-lighting/light pollution; OR fixture locations are shielded from above	
1		9.09	All exterior lighting has motion detectors with photocell controllers; OR is solar-powered	
1		9.10	Central vacuum system; exhausts to outside	
5		9.11	Solar photovoltaic (PV) power system installed: 1.5 kW minimum	kW installed:
2		9.12	A minimum of 1.5 kW additional solar PV installed (in addition to 9.11)	Additional kW installed:

SECTION 10: INTERIOR CONSTRUCTION AND FINISHES

1		10.01	Interior moulding is finger-jointed or MDF	
2		10.02	**OR** Interior moulding is locally milled local species; made from agricultural waste product; or is FSC-certified wood	
2		10.03	Cabinet boxes, doors, drawers + adhesives: a) meet E1; or b) CARB Phase I; or c) have no added urea-formaldehyde	
2		10.04	At least 75% of all cabinet faces are locally milled local species; or FSC-certified wood	a, b or c
2		10.05	At least 75% of all doors are locally milled local species; or FSC-certified wood	
2		10.06	Structural floor is the finish floor for a minimum 50% of all floor area (e.g. exposed concrete, single-layer wood)	
4 2		10.07	Finish flooring is durable material for a minimum of 50% of all floor area (e.g. ceramic tile, concrete, wood)	
4		10.08	**OR** Flooring is 100% durable material	
2		10.09	Flooring is rapidly renewable material for a minimum 25% of all floor area (e.g. cork, wool)	
1		10.10	Carpet, carpet padding and flooring adhesives have the CRI Green Label	Product: Green Label
3		10.11	Interior wall and ceiling paint has maximum VOC level of 10 grams per liter	Product: VOCs:
1		10.12	All doors have lever handles	
2		10.13	Grab bars installed in tub +/or shower of at least one bathroom	
1		10.14	Carbon monoxide detector installed (may be combined with smoke detector)	

SECTION 11: SITEWORK AND LANDSCAPING

			See Grow Green for information on appropriate, water-wise landscaping for Central Texas.	Grow Green
3		11.01	Permanent erosion and storm-water control measures (e.g. piped drainage system, berms and swales)	
2		11.02	Decking material of raised porch/deck is recycled-plastic/composite lumber	
2		11.03	Existing vegetation retained on at least 50% of pervious cover area	
3		11.04	No turfgrass installed or planned	
2		11.05	**OR** Turfgrass/lawn area does not exceed 50% of pervious cover area	
5 0		11.06	Existing vegetation substantially retained; OR all new plants from Grow Green list AND turgrass area installed ≤**2000** sq. ft.	
2		11.07	Turfgrass/lawn in full sun is AEGB-approved low-water variety (e.g. common bermuda, zoysia japonica, buffalo)	
5 4		11.08	Newly installed turfgrass areas have at least 6" of soil containing 25% compost; OR no turfgrass installed or planned	
2		11.09	Trees are protected with fencing at the drip line; or a tree protection plan by a professional arborist is followed	
2		11.10	Rainwater harvesting: 110-600 gallons storage	
3		11.11	**OR** Rainwater harvesting: 601-2,000 gallons storage	
4		11.12	**OR** Rainwater harvesting: 2,001 or more gallons storage	
3		11.13	Rainwater is sole source of indoor water	

SECTION 12: ADDITIONS AND INNOVATIONS

Describe other green measures incorporated in this project. Your AEGB Rater will determine points.

12.01
12.02
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