

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.](#)

A. Basic Requirements

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

Place an x in each yellow box at left and fill in other relevant yellow cells.

All Basic Requirements must be checked for a home to rate.

Discuss with Rater any items that may not apply to a renovated home.

- 1 **TCV Score (applies to new construction detached homes)** Enter score: NA: [TCV](#)
- 2 **Cooling and heating equipment and duct sizing determined by correct Manual J and D calculation based on orientation, plans and specifications** [Manual J Inputs](#)
- a Use "ACCA Manual J Inputs for Mechanical Equipment Sizing" for homes in the AE service area and appropriate ACCA inputs for other climate areas. *Equipment installed must match calculation.*
 - b If correct Manual J calculation results in fewer than **550** sf of living space per ton of cooling, the design is inappropriate for Central Texas and the home will not be rated.
 - c Homes for which split systems are too large (approx. <800 sf) must be equipped with a mini-split or other appropriate system.
 - d Home *design and construction* must accommodate the selected equipment and the correctly sized and insulated ductwork.
 - e Submit full Manual J and D Report with equipment specified; split-system equipment must be an AHRI match.
 - f Submit **AHRI** certificate for split system installed. For mini/multi-split or alternative system, submit website printout.
- 3 **Cooling and heating equipment minimum efficiency for split systems:**
Cooling: **14.5 SEER/12 EER**; Heating: gas furnace 80 AFUE; heat pump 8.2 HSPF
Air handlers must meet the Florida building code, Section 13-610.2.A.2.1 standard; see manufacturer's specifications.
Split-system heat pumps: an outdoor thermostat set at 40° must be installed to prevent the heat strip from activating if outdoor temperature is above 40°
- 4 **Blocking for grab bars installed in all showers and tubs (as feasible)**
- 5 **Insulation installation meets Energy Star Grade I; sealing of thermal enclosure/envelope meets current IECC standard for limiting air infiltration** [Grade 1: Appendix A, pg A-11](#)
Attic insulation type: R-value: Wall insulation type: R-value:
- 6 **Water heater meets the following minimum efficiency criteria:**
Gas units meet current Energy Star Energy Factor (**until 9/1/2010**: 40 Gal: 0.62; 50 Gal: 0.60; 60 Gal: 0.58; 80 Gal: 0.56; tankless: 0.80), OR if no gas is available in right-of way: ≥40 gallon electric WH with ≥0.94 EF; OR meets a Section 7. 4-Star requirement
- 7 **No unvented gas logs/fireplaces**
- 8 **Exhaust fans venting to outside for cooktops and bathrooms with tub or shower**
Kitchen exhaust that equals or exceeds 400cfm has make-up air provided
- 9 **Low-VOC interior wall and ceiling paint: VOC ≤100 grams per liter or is CoA recycled paint; VOC documentation required at final inspection** [CoA Recycled Paint](#)
Brand and product COA recycled VOC gpl
- 10 **All toilets are EPA WaterSense models (If tank and bowl are separate, combination must be WaterSense-labeled)** [WaterSense](#)
- 11 **Energy Star-qualified appliances/fixtures-- ≥4 from following list: appliances, ventilation fans light fixtures, ceiling fans with light fixtures**
- 12 **Programmable thermostat (Energy Star model recommended)**
- 13 **Ceiling fans: minimum of 2 installed within heated and cooled space**
- 14 **Ceiling registers: curved blade-type (stamped or adjustable blades extend outward toward living space); side-wall grills installed to adjust airflow upward**
- 15 **Planting beds have a minimum depth of 6" of soil containing 25% compost (such as Dillo Dirt) and minimum depth of 2" organic mulch**
- 16 **A minimum of 90% of new plants are from current Grow Green plant list** [Grow Green](#)
- 17 **Current City of Austin IRC, IECC Codes and Amendments must be met, regardless of project location** [CoA Codes](#)
The following energy-related standards must also be met:
- Window efficiency in Climate Zone 2: ≤0.30 SHGC and ≤0.51 U-Factor; Climate Zone 3: ≤0.30 SHGC and ≤0.40 U-Factor
 - Floor insulation over ambient or unconditioned space: ≥R-13 with air barrier
 - A minimum of 90% of all lamps/bulbs are Energy Star-compliant
- 18 **Home Performance Testing**
- New construction: all home performance testing as per code
 - OR Renovated home: meets Star level requirement (See Rating Guide for testing standard) [Rating Guide](#)
- Note: If you intend to obtain an Energy Star Rating, code-required testing must be done by a HERS rater.

All Basic Requirements Fulfilled

Star Requirements	Points for Measure	x	<h2 style="margin: 0;">B. Measures For Points</h2> <p style="margin: 0;">Place an x in the yellow column to the left of the items you intend to incorporate in your project.</p> <p style="margin: 0;">If measure has either/or, do not check both: points will <u>subtract</u>.</p> <p style="margin: 0;">If measure has a Δ, points awarded will vary, depending on extent applied.</p> <p style="margin: 0;">See far-left green column for star level requirements above One Star and S.M.A.R.T. Housing requirements.</p>
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SECTION 1. PLANNING PROCESS

3		1.01 AEGB Green by Design workshop attended by homeowner before home plans are finalized			Date: <input style="width: 80%;" type="text"/>
5		1.02 Submitter is a certified graduate of Green Boots and/or Green Reboots			Year: <input style="width: 80%;" type="text"/>
3		1.03 AEGB Green by Design workshop attended by member of current design +/- or builder staff			Date: <input style="width: 80%;" type="text"/>
Δ 0		1.04 Documented design team meeting held in <i>design stage</i> ; team includes owner, architect/designer, builder, mechanical contractor			
Δ 0		1.05 Homeowner training as assessed and approved by Rater			

SECTION 2. SITE

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 Food store is within a 1/2 mile walk			
2		2.05 Four or more community resources are within a 1/2 mile walk (e.g. public park/trail, school, post office, community center/daycare/garden)			
3		2.06 Trees are protected with fencing at the <i>drip line</i> ; and/or a tree protection plan by a professional arborist is followed			
Δ 0		2.07 Permanent erosion and storm-water control measures (e.g. retaining walls, piped drainage system, berms and swales, French drain, rain garden)			

SECTION 3. DESIGN

4		3.01 TCV score is $\geq 15\%$ above IECC 2009 and City of Austin Amendments			Score: <input style="width: 80%;" type="text"/>
5		3.02 OR TCV score is $\geq 20\%$ above IECC 2009 and City of Austin Amendments			Score: <input style="width: 80%;" type="text"/>
0		3.03 Energy-efficient design allows for minimum 600 sf of living space per ton of cooling capacity if home is 1500 sf or larger (<i>by Manual J</i>)			
3		3.04 OR Home design allows for a minimum of 700 sq. ft. of living space per ton of cooling capacity (determined by Manual J)			
3		3.05 OR Home design allows for a minimum of 800 sq. ft. of living space per ton of cooling capacity (determined by Manual J)			
4		3.06 OR Home design allows for a minimum of 900 sq. ft. of living space per ton of cooling capacity (determined by Manual J)			
4		3.07 Indoor cooling equipment is located within the thermal enclosure/envelope			
4		3.08 All duct work is located within the thermal envelope; OR home has no duct work			
2		3.09 All water heaters in 1-story home located within 20 piped feet of appliances +/- or fixtures they serve; 30 piped feet for 2-story			
3		3.10 Covered, usable <u>front</u> porch protects entry door (minimum depth: 6'; minimum area: 100 sf)			
2		3.11 Covered, usable porch other than front porch (minimum side dimension: 6'; minimum area 100 sf)			
2		3.12 Screened porch (minimum side dimension: 6'; minimum area 100 sf)			
3		3.13 Roof area of ≥ 400 sf is "solar-ready": oriented within 75 degrees of due south; unshaded; no penetrations			
2		3.14 All roof overhangs project a minimum of 24" horizontally			
Δ 0		3.15 Daylighting: Windows designed for daylighting (e.g. high windows not requiring privacy treatment)			
1		3.16 Daylighting: spaces lacking natural lighting (e.g. internal stairwell, powder room) have an Energy Star tubular daylighting device/solar tube			
1		3.17 No skylights into conditioned space			
2		3.18 Designed, effective cross-ventilation with operable windows in main living areas			
3		3.19 Designed, effective stack ventilation (e.g. operable windows in cupola, clerestory or top of stairwell)			
2		3.20 Shading or buffer spaces on west/southwest walls of living space for at least 50% of wall area (e.g. porch, pergola, trees, garage, closets)			
5		3.21 Overhang projection factor of ≥ 0.5 met for all windows facing southwest to northwest (225° through 315°)			Calculation: Overhangs
5		3.22 AND/OR Glazing on east and west walls combined does not exceed 25% of total glazing area; glazing on west wall does not exceed 10% of the west wall; and glazing on east wall does not exceed 10% of the east wall (calculations must be provided)			
4		3.23 AND/OR Total glazing area is no greater than 18% of conditioned floor area			
1		3.24 No fireplace located within conditioned space; or fireplace is direct-vent model			
1		3.25 Attached garage has exhaust fan with timer or passive vents installed 18" above floor			
2		3.26 OR Attached garage is thermally broken and air-sealed from conditioned living space			
3		3.27 OR Garage is detached from the house or house has no garage			
2		3.28 All interior doors are 2'-6" or wider (doors to non-walk-in closets excepted)			
2		3.29 Basic access to house provided according to <i>City of Austin Visitability Ordinance</i>			
4		3.30 OR Home incorporates barrier-free, universal design elements			
1		3.31 Dedicated kitchen recycling center			

SECTION 4. MATERIAL EFFICIENCY

4		4.01 Lot has more than one dwelling unit			
3		4.02 Existing home removed from site is deconstructed and recycled/reused			
4		4.03 OR Existing home removed from site is relocated for use at another site			
5		4.04 Project is renovation of, and/or addition to existing home			
4		4.05 Home is factory-built modular construction placed on a permanent foundation			Make and model: <input style="width: 80%;" type="text"/>
3		4.06 Conditioned space: maximum of 1,500 sq. ft.			
4		4.07 OR Conditioned space: maximum of 1,200 sq. ft.			
5		4.08 OR Conditioned space: maximum of 1,000 sq. ft.			
3		4.09 Exterior structure dimensions are in modules of 2'			
2		4.10 Exterior wall framing is 24" o.c.			
1		4.11 Interior wall framing is 24" o.c.			
1		4.12 Headers are sized for the loads they bear; no headers in non-load-bearing walls			
2		4.13 No wood wall sheathing is used (structural sheathing for corner bracing excepted)			
Δ 1		4.14 Other "Optimum Value Engineering" or "advanced framing" techniques (e.g. 2-stud corners and ladder blocking; drywall clips)			

MATERIAL EFFICIENCY continued

3	4.15	Exterior wall system is constructed off-site (e.g. panelized wood frame, SIPs)
3	4.16	OR Exterior wall system is ICF, AAC block, straw, earth or other AEGB-approved system
1	4.17	Engineered finger-jointed studs used for a minimum of 80% of wall construction
1	4.18	Engineered floor trusses or materials/products such as webbed trusses, I-joists, truss joists, LVLs
2	4.19	Engineered roof trusses or materials/products such as I-joists, truss joists, LVLs, SIP panels
Δ 0	4.20	Use of reclaimed/reused materials, such as doors, hardware, flooring, trim:
Δ 0	4.21	Use of recycled-content products
Δ 0	4.22	Use of local materials/products for major elements of the home: harvested or manufactured within 500 miles
1	4.23	SFI-certified: A minimum of 50% of framing or sheathing or decking material is SFI-engineered product or lumber
2	4.24	FSC-certified: A minimum of 50% of framing or sheathing or decking material is FSC-certified engineered products or lumber

SECTION 5. CONSTRUCTION WASTE MANAGEMENT

2	5.01	On-site facilitation of sorting and reuse of scrap building material; appropriate for project; as approved by Rater
Δ 0	5.02	On-site grinding of brush, lumber, cementitious material and/or gypsum waste (not landfilled)
Δ 0	5.03	Excess material reused offsite (not landfilled); documentation required
2	4	5.04 Minimum 50% -by-weight of waste is recycled/reused (not landfilled); documentation required
4	5.05	OR Construction waste management plan, approved by Rater at commencement of project; documentation required
2	5.06	Concrete-truck wash-out managed to recycle concrete residue and treat wash-out water

Total: [Documentation](#)

SECTION 6. THERMAL ENVELOPE, MOISTURE AND PEST 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	Sand or mechanical-barrier termite control system is used: OR structure is not termite-edible
3	6.02	All wood framing is treated with borate to a minimum of 3 feet above the foundation; OR structure is not termite-edible
1	6.03	All exterior wood-to-concrete connections are separated by metal or plastic fasteners/dividers (e.g. deck posts)
2	6.04	Window and exterior door glass: ≤0.35 U-Factor
4	0	6.05 Any skylights installed meet current Energy Star criteria for SHGC and U-factor
1	6.06	"Raised-heel"/"energy" roof trusses (vented attics only)
2	6.07	Vented attic system: continuous ridge and continuous soffit vents; no other functioning vents
5	6.08	AND/OR Closed/sealed attic system: unvented; polyurethane foam insulation at roof; minimum 5.5" depth
2	6.09	Attic insulation: ≥R-38
3	4	6.10 "Total fill" insulation in walls (e.g. blown cellulose, BIBS, spray foam, SIPs)
2	6.11	Insulation has no added formaldehyde
3	6.12	Roofing solar reflectance + Solar Reflectance Index (SRI): slope >5/12=≥0.20/16; ≥3/12--<5/12: ≥0.30/30; <3/12: ≥0.55/64
5	6.13	Roofing: Metal x Tile x Green/Vegetative x
2	6.14	Roofing material installed with air-space offset between roofing and roof deck from eave to ridge
3	6.15	Complete gutter and downspout system directs stormwater away from foundation to landscaping or catchment system
3	6.16	Blower door test performed results in envelope leakage no greater than 0.25 AND mechanical ventilation (Must choose 8.13 or 8.14 or 8.15)

[Energy Star](#)
[Cool Roofs](#)

SECTION 7: PLUMBING

1	7.01	≥R-4 insulation of hot water lines located outside the thermal envelope and in exterior walls
3	7.02	<i>Push-button</i> on-demand recirculation system (not continuously recirculating; not motion-activated)
5	0	7.03 Any installed irrigation system must include water-efficiency features listed in Rating Guide
2	7.04	Greywater for toilet-flushing or landscape watering
2	7.05	Gas water heater is sealed-combustion/direct vent model; minimum efficiency: 0.80 EF (Energy Factor)
2	7.06	OR Gas water heater is tankless/on-demand; minimum efficiency: 0.82 EF
4	4	7.07 OR Water heater is integral heat pump: minimum efficiency: 2.0 EF
5	7.08	OR Water heater is solar thermal; meets Austin Energy requirements
4	7.09	AND/OR Water heater is integrated with space heating ("combo" system) + sized for space heating; efficiency for gas WH: ≥0.85 CAE
2	7.10	Toilet is WaterSense dual-flush model
2	7.11	Toilet in at least one bath/powder is WaterSense ADA model (located on entry-level floor; ≥2'-8" door width)
2	7.12	All bathroom sink faucets are WaterSense models
3	7.13	All shower heads have maximum flow of 2.0 gallons per minute; no more than one shower head per shower or tub
2	7.14	Clothes washer is from the current CoA Water Conservation WashWise list

[WaterSense](#)
[CoA Washer List](#)

SECTION 8: MECHANICAL

2	8.01	Cooling tonnage does not exceed 4 tons
3	8.02	OR cooling tonnage does not exceed 3 tons
4	8.03	OR cooling tonnage does not exceed 2 tons
5	8.04	Whole-house, ductless, mini- or multi-split heating and cooling system
3	8.05	Variable-speed air handler
4	8.06	Variable-capacity compressor
4	8.07	Ground or water-source heat pump
2	8.08	Gas furnace is sealed-combustion/direct-vent model (CoA requirement if located in sealed attic)
4	8.09	Sheet metal plenum and main trunk lines; any flex-duct take-offs are no longer than 10'
3	8.10	Air-tight supply boots (prefabricated or ductboard)
1	8.11	Ductwork system is masked/sealed at supplies and returns during construction

MECHANICAL continued

2	8.13	Mechanical ventilation with automatic damper and timer provides fresh air into return-air plenum	
4	3	8.14 OR Mechanical ventilation with automatic damper, timer, humidity, and temperature controls provides fresh air into return-air plenum	
4	8.15	OR ERV (enthalpy recovery ventilator) with dedicated duct system	
1	8.16	Stand-alone hygrometer; OR thermostat has integral hygrometer or humidistat	
2	8.17	HVAC filter: ≥ 4" pleated-media, or electronic (not electrostatic); easily accessed; HVAC system designed for filter type	
2	8.18	Air distribution system leakage ≤ 8% as ascertained by duct-blaster testing method	
4	8.19	OR Air distribution system leakage ≤ 4 cfm to outside per 100 sf ascertained by duct-blaster test and blower door test together	

SECTION 9: ELECTRICAL

2	9.01	Ceiling fans in all bedrooms	
2	9.02	Whole house fan with factory-insulated cover	
2	2	9.03 Bathroom exhaust fans are connected to timer or humidistat (not motion-sensor); recommended sone rating: ≤ 1.0	
2	9.04	Recessed-can lighting fixtures do not penetrate the thermal enclosure; OR no recessed-can fixtures are installed	
3	9.05	Energy Star Advanced Lighting Package requirements met	Advanced Lighting Package
1	9.06	Energy Star-qualified appliances/fixtures: ≥ 2 in addition to 4 of Basic Requirements	1) <input type="text"/> 2) <input type="text"/>
2	9.07	Occupancy sensors control ≥ 50% of interior lighting	
Δ 0	9.08	Energy management monitoring and control system	
2	9.09	All exterior light fixtures are designed to reduce up-lighting/light pollution; or fixture locations are shielded from above	
1	9.10	All exterior lighting has motion detectors with photocell controllers; or is solar-powered	
1	9.11	Central vacuum system; exhausts to outside	
3	9.12	Home designed and wired per Solar Energy Code (Ordinance No. 20071018-087); exterior disconnect for fire safety	Solar Ordinance
Δ 0	9.13	OR Solar photovoltaic (PV) power system: minimum of 1.5 kW	Total kW installed: <input type="text"/>

SECTION 10: INTERIORS

See Section 4. for credit for interior materials that are recycled, reclaimed, local, etc.			
4	2	10.01 Structural floor is the finish floor for a minimum 40% of all floor area	
2	10.02	Finish floor is durable material for a minimum 50% of all floor area (e.g. ceramic tile, concrete, wood)	
4	4	10.03 OR Flooring is 100% durable material	
1	10.04	Flooring is a rapidly renewable material for ≥ 25% of all floor area:	Cork <input type="text"/> Wool carpet <input type="text"/> Other <input type="text"/>
1	10.05	Carpet, carpet padding and flooring adhesives have the CRI Green Label	Product: <input type="text"/>
5	0	10.06 Any non-durable flooring installed is rapidly renewable or CRI Green Label	Material/Product: <input type="text"/>
3	10.07	Cabinet materials + adhesives: a) meet E1 Standard; or b) CARB Phase I Standard; or c) have no added urea-formaldehyde	
3	10.08	Interior wall and ceiling paint has maximum VOC level of 10 grams per liter	Product: <input type="text"/> gpl: <input type="text"/>
Δ 0	10.09	Site-applied interior products meet GS-11 and GS-47 (Green Seal) VOC standards	GS-11 GS-47 pg13
1	10.10	All doors have lever handles	
2	10.11	Grab bars installed in tub +/- or shower of at least one bathroom	
1	10.12	Carbon monoxide detector installed (may be combined with smoke detector)	

SECTION 11: LANDSCAPING AND RAINWATER

See Grow Green for information on appropriate, water-wise landscaping for Central Texas.			
Grow Green			
2	11.01	Permeable materials used for a minimum of 25% of driveways, parking areas, walkways, and patios; not installed over impermeable base	
2	11.02	Decking material of raised porch/deck is recycled-plastic/composite lumber	
1	11.03	Turfgrass does not exceed 50%, or existing vegetation is retained, on ≥ 50% of pervious cover area	
5	0	11.04 All new plants are from Grow Green list AND turfgrass area installed or planned does not exceed 2000 sq. ft.	
4	11.05	Turfgrass/lawn in full sun is AEGB-approved low-water variety (e.g. common bermuda, zoysia, buffalo)	Variety: <input type="text"/>
5	4	11.06 Newly installed turfgrass areas have at least 6" of soil containing 25% compost: <input type="text"/> OR no turfgrass is installed or planned: <input type="text"/>	
1	11.07	National Wildlife Federation "Certified Wildlife Habitat" or Texas Parks & Wildlife "Texas Wildscapes" certification	TXP&W N.W.F.
1	11.08	All new plants, shrubs and trees have trunk, base or stem located at least 36" from foundation	
3	11.09	Rainwater harvesting: 110-600 gallons storage	
4	11.10	OR Rainwater harvesting: 601-3,000 gallons storage	Total gallons: <input type="text"/>
5	11.11	OR Rainwater harvesting: ≥ 3,000 gallons storage	
5	11.12	Rainwater is sole source of potable water; 20,000 gallon minimum storage; back-up well allowed	

SECTION 12: ADDITIONS AND INNOVATIONS

Describe other green measures incorporated in this project. Your AEGB Rater will determine points.			
	12.01		
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	12.03		
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