



Austin Energy Green Building Program Overview

Heidi Kasper

Energy Efficiency Services Director, Green Building EVET



3/05/2025

© 2023 Austin Energy

History and Mission

Austin Energy Green Building developed the first rating system in the U.S. for evaluating the sustainability of buildings, creating a model for many other cities as well as the U.S. Green Building Council's LEED certification system.

Since 1991, Austin Energy Green Building has provided:

- Ratings and programs
- Education and outreach
- Advocacy and planning

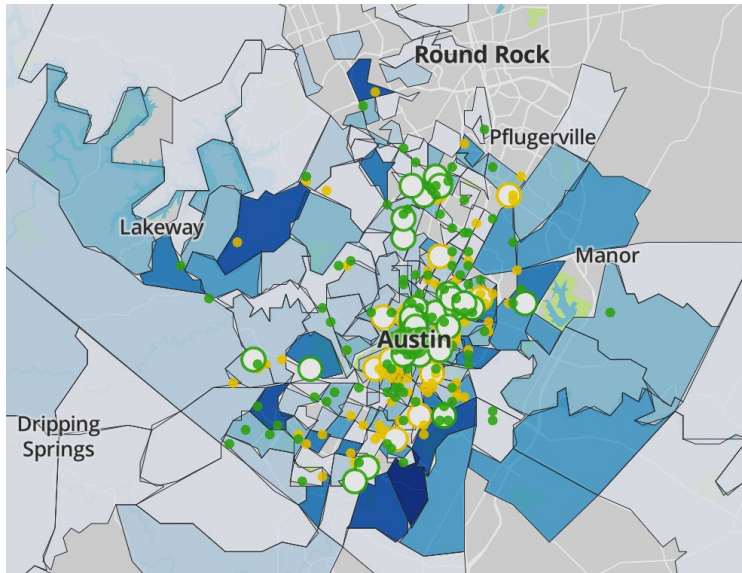
Mission

To cultivate innovation in building and transportation for the enrichment of the community's environmental, economic and human well-being



AUSTIN ENERGY
**GREEN
BUILDING**

Environmental and Community Impact



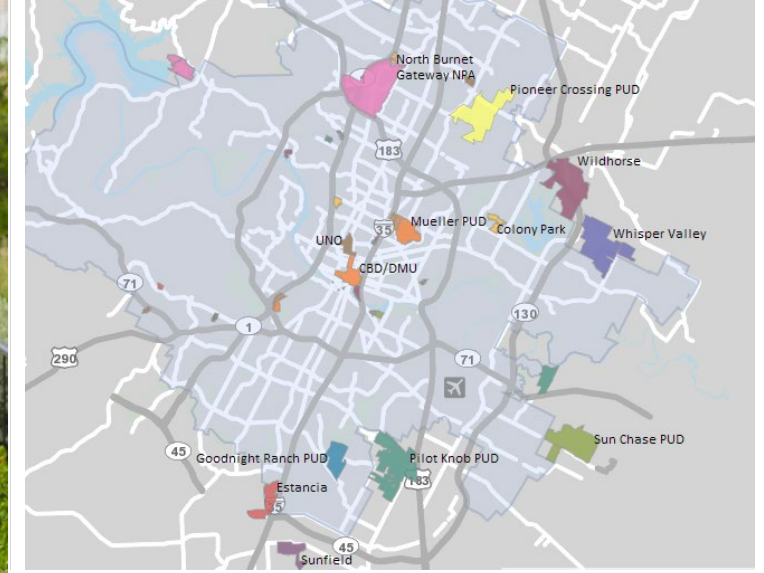
Ratings

AEGB provides design tools and rates the sustainability of new and remodeled Single Family, Multifamily and Commercial buildings.



Education and Outreach

AEGB creates education opportunities for the public and professionals plus celebrates rated projects through marketing and events.



Policies and Codes

AEGB uses program results to inform development of City of Austin codes, advance energy code and amend City development agreements.

Rating Goals and Measures

Conservation

Energy | Water | Materials

- Resource Generation Plan
- Water Forward
- Zero Waste Plan
- Climate Equity Plan

Quality of Life

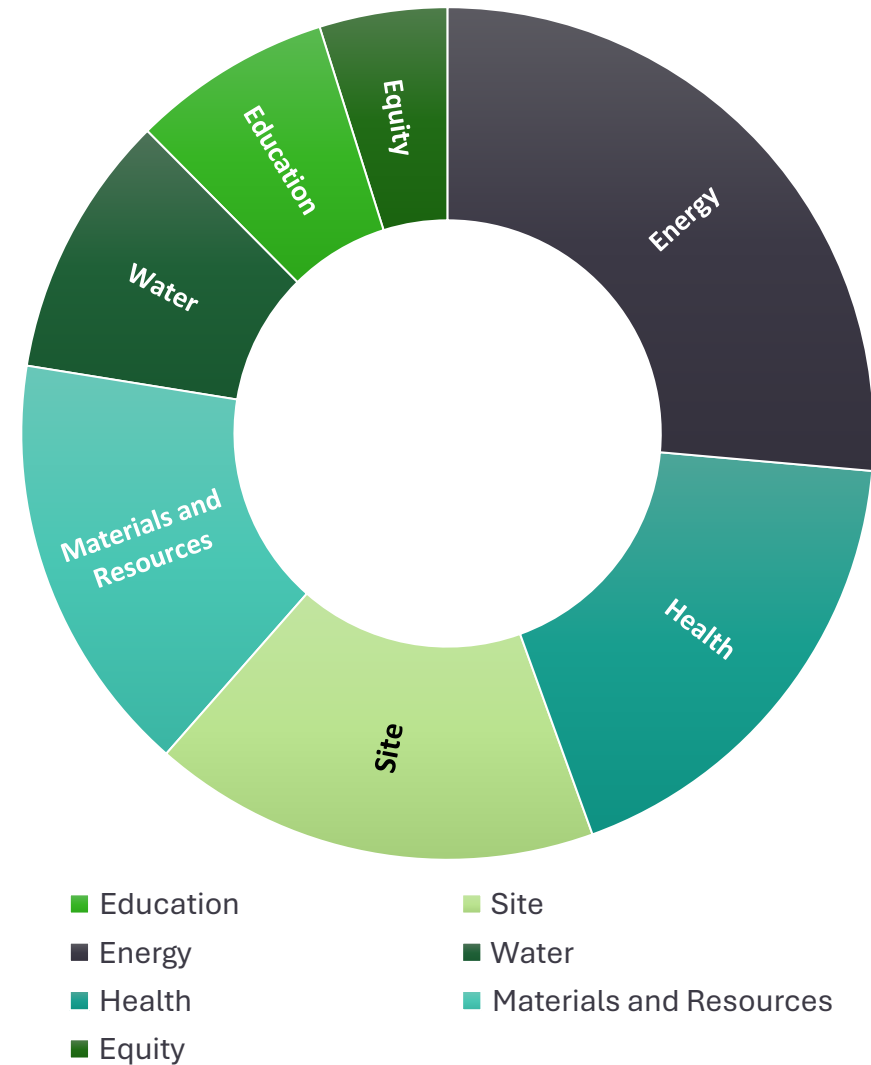
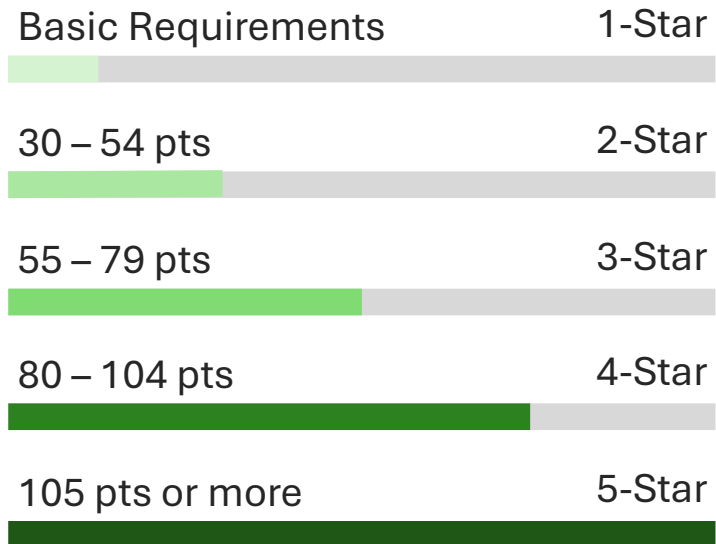
Environment | Transportation | Education | Equity

- Promote healthier indoor & outdoor environments
- Promote transportation options that work for everyone
- Increase human health & well-being
- Improve construction worker health and safety
- Provide buildings that work for everyone



Rating Structure

The number of sustainability measures a project incorporates determines its star rating.



Austin Energy Green Building Ratings

AEGB rates new construction and major renovation projects for three markets.



Single Family

Production and Custom Homes

20,927

17.3 K Austin | **3.7 K** Extended Area



Multifamily

Residential < 8 Stories

249

49.8 M sq. ft. | **43.6 K** dwelling units



Commercial

and Residential > 7 Stories

397

56.9 M sq. ft. | **15.9 K** dwelling units

21,573 rated projects
total reported from FY 1991 - 2024

AEGB Ratings Impact

FY2007 – FY2024

By the Numbers

Demand savings – **429 MW**

Electricity savings – **936,181 MWh**

Natural Gas savings – **2,842,360 ccf**

Solar PV generation – **6,222 MWh**

CO₂e savings – **176,532 metric tons**

Water savings – **1,250,543,000 gallons**

Construction Waste diversion – **2,014,794 tons**

Equivalent Impacts



Electricity use of **87,815 avg homes***



Water use of **16,997 avg homes***



Trash collection of **3,044,644 avg homes***



CO₂e reduced by **215,283 acres of U.S. forests in one year**

Bird Collision Deterrence

What influences bird strikes?

- Skyglow/exterior lighting confuses migrating birds at night
- Building facades reflect trees or other nesting/food locations
- Birds cannot see clear or tinted glass
- Fly-through conditions where birds have line of sight through a building

How to reduce bird strikes:

- Reduce skyglow by limiting light emitted above horizontal plane from exterior light fixtures
- Design building facades with the 2x4 or 2x2 rule in mind:
 - Utilize more opaque facade materials
 - Obstruct glazing with UV coatings (birds can see, people cannot)
 - Include physical structure in front of glazing
 - Introduce frit/etching patterns to glass

Bird Collision Deterrence – AEGB Voluntary Measure



AEGB Innovation Requirements

1. Reduce UPLIGHT from exterior light fixtures
 - Limit skyglow and “attraction” of birds to buildings, document with BUG ratings
2. Construct building facade with low “Threat Factor”
 - Threat factor (TF) rates materials on a scale from 0-100 based on how likely a bird is to collide with that material. Opaque material such as brick has a TF of 0, while clear glazing has a TF of up to 100
 - Evaluate the first 100 feet of building facade above grade using the AEGB BCD calculator
 - Meet TF minimum requirements as defined in Innovation

