

ENERGY STAR Design Profile Instructions

Creating your Design Profile

The Design Profile provides an opportunity to showcase your accomplishments and share best practices on the ENERGY STAR website for achieving excellence in designing energy efficient, low or no carbon emitting building.

The design profile consists of two parts: **a design narrative** describing the projects key efficiency aspects and a **digital project board** illustrating the project's design features. Create the design narrative and project board to describe and illustrate how your design incorporates energy efficiency, decarbonization, and innovative design strategies to eliminate or reduce fossil fuel energy use. Include energy and CO₂ metrics from the Statement of Energy Design Intent (SEDI) generated by the ENERGY STAR Portfolio Manager tool and/or other metrics that helped guide your design decisions.

Design Narrative

Use the Word template to create your design narrative. See the following page for prompts and questions to guide your response on key topics as well as an example of the design narrative on page 3 of this document.

Digital Project Board

Create a project board with images, pictures, diagrams, and key metrics to illustrate your design; please limit the amount text on project board; instead include it in the narrative. See the following page for prompts and questions to guide your response on key topics. Include the following information on project board from the SEDI:

- Property name and location
- AOR firm and/or owner logo/name
- ENERGY STAR score
- EUI and percent CO₂/energy reduction
- The Designed to Earn the ENERGY STAR certification graphic

The project board should be created as a PDF; dimensions may vary, however 18" x 24" is recommended. Include high-resolution images, and limit file size to 15MB. See the [Challenge Gallery](#) for examples of project boards.

Note: The Design Profile may be submitted with an application for Designed to Earn the ENERGY STAR recognition or later after your application has been approved by EPA. The AOR firm or building owner may submit a Design Profile for projects approved for Designed to Earn the ENERGY STAR recognition. However, the AOR firm is responsible for submitting the Designed to Earn the ENERGY STAR application to EPA. Email Design Profiles to DEES@energystar.gov and include in the subject line: DEES Design Profile.

ENERGY STAR Design Narrative Prompts

Use the following questions to enhance your design profile. Include in your design narrative and digital project board descriptions, metrics from the SEDI and illustrations that highlight key aspects of the project from the sections below.

- **Energy Efficiency (Required):** How does the design incorporate energy efficient technologies and strategies? And how do these actions will help to reduce energy use and CO₂ emissions. Discuss how achieving Designed to Earn the ENERGY STAR recognition helped to meet efficiency goals for the project. See [How to Talk and Write about Designed to Earn the ENERGY STAR](#) for suggestions to include in your design profile.
- **Decarbonization and Innovative Design Strategies:** How does the project incorporate design strategies and/or technologies to reduce or prevent CO₂ and other greenhouse gas (GHG) emissions, in addition to energy efficiency? Explain and provide quantitative metrics/results where applicable. Examples of strategies include:
 - **Electrification:** Does the project include choice of efficient technologies powered by electricity instead of fossil fuels? Describe the technologies and the process of incorporating them into the design.
 - **Renewable Energy:** Does the project include renewable energy sources? Describe the renewable energy technologies and strategies being used for the project; include the timeframe for implementing the strategies/technologies. Do not include future or intended purchase of RECs as a strategy for the design.
 - **Innovative Design:** Does the design include innovative features that enhance efficiency and prevent GHG emissions? For example, include strategies that eliminate the need for energy-using systems, encourage occupant engagement with systems and techniques that reduce energy use and the project's carbon footprint, incorporate biophilic design concepts, and reduce embodied carbon. Describe design concepts and quantify their impact.
- **Energy Equity:** Is the project located in an underserved community? Describe how the enhanced energy efficiency and GHG emission mitigating design will benefit the community.
- **Local Building Performance Requirements:** Is the project required to meet an energy efficiency, electrification, and/or carbon standard? Describe the requirement and how the project is designed to meet or exceed it.



ENERGY STAR® Design Narrative Example

Building Name [City, State]

Owner/Architect of Record/Engineering Firm

Our building achieved Designed to Earn the ENERGY STAR certification by meeting EPA criteria for reducing energy and CO₂ emissions. It was important that our building achieved Designed to Earn the ENERGY STAR because it signals to the market that the project is intended to perform in the top 25% of the nation's most energy efficient buildings.

AOR Firm is also helping the environment by delivering an energy efficient design to our client because ENERGY STAR buildings have a proven track record and yield an average of 30 percent annual energy savings and CO₂ reductions.

Our project received an ENERGY STAR design score of 93 signaling future investors of the potential financial benefits from reduced energy costs and CO₂ emissions over the life of the building.

AOR Firm used the Target Finder tool to evaluate how various design strategies will affect the energy estimates for the project.

Energy Efficient Design Strategies

The projected annual energy and CO₂ savings of the design is 78% as compared to the median building; these reductions are due to energy conscious decisions made during the design process and renewable energy. The onsite solar photovoltaic array offsets utility costs.

The estimated total annual energy savings for this project is 1,850,531 kBtu/yr with an estimated cost savings of \$54,461/yr.

Decarbonization and Innovative Design Strategies

This project is intended to have a net zero carbon footprint because of on-site renewable energy and the additional sourcing of clean energy. The building is also all-electric ready to take advantage of the clean grid in the future.

The building orientation provides for enhanced daylighting techniques with views to outdoors and less dependence on artificial lighting, however where needed energy efficient LED lighting was used throughout the building.

A high efficiency HVAC system with enhanced air filtration also provides excellent indoor air quality to improve occupant health and comfort. The mechanical systems and components use fuel sources that reduce CO₂ emissions and passive heating and cooling techniques are included in the design.

The project is in an underserved community that will benefit the community through enhanced energy efficiency and CO₂ reduction design. Building staff will provide training to raise awareness of energy efficient design and highlight how using less CO₂ improves the quality of life in the community.

The project's energy and CO₂ goals meet local or government ordinances for high performing buildings that will ensure superior energy efficiency throughout its lifespan. Additionally, the design team considered strategies to reduce embodied carbon through sourcing local materials and limiting the use of carbon-intensive materials and building products.

ENERGY STAR Design Score: **93**

Percent Energy and CO₂ Reduction*: **30%**

Design Year/Estimated Occupancy Date: **2024**

Space Type: **Office**

Floor Space [sq ft]: **43,035**

Estimated Energy Use Intensity [kBtu/sf/yr]: **43**

Estimated Total Annual Energy Use [kBtu/yr]: **1,850,531**

Estimated Annual Energy Cost [\$]: **54,461**

For More Information contact the AOR Firm.

**Percent Energy and CO₂ Reductions are based on comparison to a median building of similar type.*