

## Energy Performance Specification for Designing and Operating Buildings to Achieve ENERGY STAR®

The following specification is to indicate that a design project or an existing building meets U.S. Environmental Protection Agency (EPA) energy performance criteria to achieve EPA's ENERGY STAR. The design may be eligible to receive the ENERGY STAR certification graphic, which denotes that the estimated energy use is intended to be in the top 25 percent as compared to the U.S. building stock. Once the building is built and operating for at least 1 year, it may qualify to receive the ENERGY STAR plaque.

The Architect of Record (AOR) can apply to for the Designed to Earn the ENERGY STAR graphic from EPA for a specified project. The AOR must demonstrate that the final estimate of the building's energy use corresponds to a rating of 75 or better using the EPA's energy performance rating from the online [Target Finder](#) tool.

*Specifying the 2030 Challenge Goal.* Target Finder may also be used to confirm that a design project meets energy reduction goals specified in the 2030 Challenge. Projects that meet 50 percent energy reduction (from an average building) or higher typically exceed the ENERGY STAR threshold of 75 on the EPA rating scale; therefore, EPA encourages setting the target for commercial new construction projects at a higher level than 75. The language can be adapted to specify meeting both the 2030 goal and ENERGY STAR.

The EPA energy performance rating is derived from fuel consumption data of existing commercial buildings, which includes the total energy use associated with the buildings. Design energy targets must include all fuel sources and total estimated energy use for the building design. An incomplete design energy use profile could result in a high, but inaccurate, rating. Gaps in energy analysis must be addressed in order for the rating to be a useful indicator of future performance.

The building owner can apply for the ENERGY STAR plaque by demonstrating that, after at least 1 year of operation, the building energy consumption from utility bills must: 1) rate 75 or higher on EPA's energy performance rating from the online [Portfolio Manager](#) tool; and 2) meet specific indoor environmental quality standards.

### Instructions for using this document

*This document may be modified to suit various conditions.* A client may use it in a request for proposal or may be incorporate it in the contractual arrangement between the client and architecture firm, construction documents, and/or in a lease agreement. The specification includes language for both building design and the occupied building.

Use the document to state energy goals in Construction Documents, and include the language in the Supplementary General Conditions Section.

Including this building energy performance specification signals a commitment to design, build, and operate a building with superior energy performance—one whose energy use, greenhouse gas emissions, and costs-to-operate are lower than 75 percent of comparable buildings nationwide.

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- 1) Recommended Designer Scope of Work or Request for Proposal Language:
  - a) Pre-Design or Programming Phase: The designer shall assist the owner in developing a scope of work, project budget and schedule; and assemble a multi-disciplinary team to execute an integrated design approach; and establish an energy performance target that exceeds the ENERGY STAR rating of 75, generated by from EPA's Target Finder. All references to the use of the EPA energy performance rating system and Target Finder are dependent on the building being one of the space types handled by Target Finder. The design team shall conduct a comprehensive charrette to address architecture, energy and environmental issues.
  - b) Schematic Design Phase: Design team members shall explore strategies to achieve an EPA rating of 75 or higher.
  - c) Design Development: Design team members shall fine tune original design strategies and methodologies. Energy performance shall be adjusted and evaluated using EPA's Target Finder to achieve the EPA rating of 75 or greater during design development.
  - d) Construction Documents.
    - i) Design team members shall fully develop and document energy performance strategies and methodologies for the project. The design team shall review progress and adjust strategies and systems to meet or exceed ENERGY STAR criteria for building design.
    - ii) Specification Content: The Specifications in the Project Manual shall include and reference the "Statement of Energy Design Intent," generated from EPA's Target Finder, at completion construction documents. A copy of the original Statement of Energy Design Intent shall be included and sealed by a licensed architect or engineer as evidence in the application to EPA, showing that the energy design intent meets or exceeds ENERGY STAR standards.
    - iii) The AOR shall apply for the Designed to Earn the ENERGY STAR graphic. This graphic shall be affixed in the drawing's title block and may also be affixed to other related Construction Documents for the specified project.
- 2) Recommended Specification Language:
  - a) Summary, Administration, or Supplementary General Conditions Section:
    - i) This project is designed to achieve an EPA rating of 75 or higher. The designer has filed a Statement of Energy Design Intent, generated from Target Finder, with the EPA. The Contractor shall adhere to products, methods, and quality levels specified in the construction documents. Any proposed substitutions must be submitted according to the procedures defined herein. Substitutions that may alter the energy performance goals of the project will not be approved. No substitutions are permitted without approval of the design team.
  - b) Commissioning or Administration Section:
    - i) The owner has employed a Commissioning Agent (independent of the design team) that shall provide documented confirmation that building systems function in compliance with energy performance goals set forth in the Project Documents to satisfy the owner's operational needs. The Commissioning Agent shall perform tests and document procedures necessary to verify compliance with intended operation of specified systems. The Commissioning responsibilities are indicated within the drawings and individual specification sections.

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- ii) The Commissioning Agent shall measure and track actual energy consumption of the building's systems to determine if energy performance goals are being achieved and maintained. The Contractor will make needed adjustments and corrections prior to expiration of the \_\_\_ year warranty period.
- c) Post Occupancy:
  - i) ENERGY STAR Building Certification shall be achieved within 14 months of reaching 95 percent occupancy if the building is one of the space types handled by EPA's energy performance rating system. The building's annual energy use shall be benchmarked (rated) against its peers using Portfolio Manager. A copy of the original "Statement of Energy Performance" shall be included and sealed by a professional engineer or registered architect as evidence in the application to EPA, showing that the energy performance meets or exceeds ENERGY STAR standards.