



Building Design Guidance Checklist



SET GOAL

- Set an energy performance goal
- Review case studies that demonstrate enhanced energy performance
- Allocate sufficient funds for an integrated design process



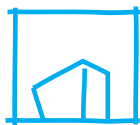
ASSEMBLE DESIGN TEAM

- Select a multi-disciplinary team
- Adopt an integrated design approach
- Educate the project team on goals, costs, and benefits



PRE-DESIGN

- Conduct a comprehensive charrette that addresses architecture, energy, and environmental issues
- Identify synergies between design concepts and energy use
- Develop scope of work, project budget, and schedule



SCHEMATIC DESIGN

- Analyze the site and building orientation with energy performance in mind
- Use natural shading features to reduce cooling load
- Consider daylighting to reduce electrical lighting requirement and the air-conditioning load
- Review energy strategies with an energy expert
- Begin energy analysis of design concepts
- Right-size mechanical systems based on anticipated performance and loads
- Compare estimated energy use to design target
- Make adjustments and integrate energy performance strategies



DESIGN DEVELOPMENT

- Refine the project to achieve the energy performance goal
- Prepare energy performance specification for construction documents
- Assemble resources that explain installation, operation, and other requirements



CONSTRUCTION & BID DOCUMENTS

- Include Statement of Energy Design Intent (SEDI)
- Specify design team participation during construction
- Include approval process for change orders to methods and materials
- Encourage building owner to hold all parties accountable for achieving the energy performance goal
- Seek incentives for meeting the energy performance goal
- Include design team's summaries of energy-efficient features and anticipated functions
- Select qualified manufacturers
- Place the "Designed To Earn The ENERGY STAR" graphic on final drawings that achieve 75 or better in Target Finder



COMMISSIONING THE BUILDING

- Specify detailed commissioning activities in project contracts
- Seek separate funding and hire specialists
- Include the commissioning firm as part of the design team early in the project
- Communicate your energy performance goal
- Encourage energy-use tracking over time



TRACKING, MEASUREMENT & VERIFICATION

- Communicate the energy performance target to the M&V team
- Document how energy performance compares to the design intent
- Use EPA's Portfolio Manager to track and rate annual energy performance



THE ENERGY STAR FOR COMMERCIAL BUILDINGS

- Compare the building's actual energy consumption to the industry benchmark using Portfolio Manager
- Apply for the ENERGY STAR if the building achieves a 75 or higher
 - Complete the application letter and the Statement of Energy Performance (SEP)
 - Have a licensed Professional Engineer certify indoor environmental criteria
- Communicate the success of the building design team/firm and their energy design strategies