

- Floors
- Slabs
- Doors
- Vertical Glazing
- Skylights
- Lighting
  - Daylighting
  - Interior Electric Lighting
  - Lighting Controls
- HVAC Equipment and Systems
  - Cooling Equipment Efficiencies
  - Heating Equipment Efficiencies
  - Supply Fans
  - Ventilation Control
  - Ducts
- Service Water Heating
  - Equipment Efficiencies
  - Pipe Insulation

In addition, “bonus savings” strategies to improve energy efficiency beyond the 30% energy savings level are included for:

- Exterior Façade Lighting
- Parking Lot Lighting
- Plug Loads and In-Store Illuminated Displays
- Exterior “Internal” Illuminated Signage, Façade Applied or within Storefront Windows

Quality assurance (QA) and commissioning (Cx) are also covered in Chapter 5.

## HOW TO USE THIS GUIDE

There are numerous ways to use this Guide effectively consistent with the background and knowledge of the user—some may turn immediately to the climate-specific recommendations; others may choose to first understand how energy goals fit into the design process. In addition, this Guide provides recommendations that would assist the user in achieving energy efficiency credits for LEED or other building energy rating systems. The authors of this Guide suggest the following approach:

- Review Chapter 2 to understand how energy efficiency goals relate to the stages of building design. The flow charts, tables, and checklists in Chapter 2 can be used to lead, communicate, and manage the design and construction of energy-efficient buildings.
- Review Chapter 3 for specific recommendations to achieve the 30% energy savings level in your climate zone. These criteria provide *a way* to achieve the 30% savings goal and also serve as a starting point to further refine the energy design. The authors realize that designers typically don’t receive sufficient design fees to perform energy design optimization. Therefore, the contents of this chapter can serve as a starting point to meet specific requirements of a particular project.
- Review the Chapter 4 case studies to assure you and your team that other designers and builders have successfully used these and similar techniques to build energy-efficient buildings in the real world. In fact, a number of the case study buildings have won awards or achieved peer recognition for their energy efficiency attributes.
- Use Chapter 5 to detail how the Chapter 3 recommendations are applied. Use the how-to tips, cross-referenced to the recommendation tables, to apply best practices (as well as cautions to avoid known problems in energy-efficient construction) to the specific circumstances of your project. Also, consider the recommendations for “bonus savings” from energy-efficient appliances and cord-connected equipment as well as exterior lighting controls.

