

- [EAc1 | Annual energy use](#)
- [EAc1 | Optimize energy performance](#)
- [EAc1 | Optimize energy performance](#)
- [EAc1 | Optimize energy performance](#)
- [EAc1.1 | Optimize energy performance - lighting power](#)
- [EAc1.1 | Optimize energy performance - lighting power](#)
- [EAc1.1 | Optimize energy performance, lighting power](#)
- [EAc1.1-1.5 | Optimize energy performance](#)
- [EAc1.2 | Optimize energy performance - lighting controls](#)
- [EAc1.2 | Optimize energy performance - lighting controls](#)
- [EAc1.2 | Optimize energy performance, lighting controls](#)
- [EAc1.3 | Optimize energy performance - HVAC](#)
- [EAc1.3 | Optimize energy performance - HVAC](#)
- [EAc1.3 | Optimize energy performance, HVAC](#)
- [EAc1.4 | Optimize energy performance - equipment and appliances](#)
- [EAc1.4 | Optimize energy performance - equipment and appliances](#)
- [EAc1.4 | Optimize energy performance, equipment & appliances](#)
- [EAc1.5 | Optimize energy performance - building envelope](#)
- [EAc1.5 | Optimize energy performance, envelope](#)
- [EAc10 | Renewable energy](#)
- [EAc10 | Space heating and cooling equipment](#)
- [EAc11 | Residential refrigerant management](#)
- [EAc11 | Heating and cooling distribution systems](#)
- [EAc12 | Efficient domestic hot water equipment](#)
- [EAc13 | Lighting](#)
- [EAc14 | High-efficiency appliances](#)
- [EAc15 | Renewable energy](#)
- [EAc2 | Enhanced commissioning](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | Insulation](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | Enhanced commissioning](#)
- [EAc2 | On-site and off-site renewable energy](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | Efficient hot water distribution system](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | Enhanced commissioning](#)
- [EAc2 | On-site renewable energy](#)
- [EAc2 | On-site renewable energy, 1%](#)
- [EAc2.1 | Existing building commissioning - investigation and analysis](#)
- [EAc2.1 | Existing building commissioning - investigation and analysis](#)
- [EAc2.1 | Renewable energy - 5%](#)
- [EAc2.1-2.3 | Renewable energy](#)
- [EAc2.2 | Existing building commissioning - implementation](#)
- [EAc2.2 | Existing building commissioning - implementation](#)
- [EAc2.2 | Renewable energy - 10%](#)
- [EAc2.3 | Existing building commissioning - ongoing commissioning](#)
- [EAc2.3 | Existing building commissioning - ongoing commissioning](#)
- [EAc2.3 | Renewable energy - 20%](#)
- [EAc3 | Enhanced commissioning](#)
- [EAc3 | Enhanced commissioning](#)
- [EAc3 | Measurement and verification](#)
- [EAc3 | Air infiltration](#)
- [EAc3 | Enhanced commissioning](#)
- [EAc3 | Energy use, measurement and payment accountability](#)
- [EAc3 | Enhanced commissioning](#)
- [EAc3 | Enhanced commissioning](#)
- [EAc3 | Additional commissioning](#)
- [EAc3 | Additional commissioning](#)
- [EAc3 | Advanced utility tracking](#)
- [EAc3 | Enhanced commissioning](#)
- [EAc3 | Energy use, measurement & payment accountability](#)
- [EAc3 | Enhanced commissioning](#)
- [EAc3.1 | Performance measurement - building automation system](#)
- [EAc3.1 | Performance measurement - building automation system](#)
- [EAc3.1 | Building operations and maintenance - staff education](#)
- [EAc3.2 | Performance measurement - system-level metering](#)
- [EAc3.2 | Performance measurement - system-level metering](#)
- [EAc3.2 | Building operations and maintenance - building systems maintenance](#)
- [EAc3.3 | Building operations and maintenance - building systems monitoring](#)
- [EAc3.3 | Performance measurement - system-level metering](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Green power](#)
- [EAc4 | On-site and off-site renewable energy](#)
- [EAc4 | Green power](#)
- [EAc4 | Windows](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Green power](#)
- [EAc4 | Additional ozone protection](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Ozone protection](#)
- [EAc4 | Ozone depletion](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Active solar-ready design](#)
- [EAc4 | Enhanced refrigerant management](#)
- [EAc4 | Green power](#)
- [EAc4 | Enhanced refrigerant management](#)

- [EAc4.1 | On-site and off-site renewable energy](#)
- [EAc4.2 | On-site and off-site renewable energy](#)
- [EAc4.3 | On-site and off-site renewable energy](#)
- [EAc4.4 | On-site and off-site renewable energy](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Enhanced refrigerant management](#)
- [EAc5 | On-site renewable energy](#)
- [EAc5 | Heating and cooling distribution system](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Refrigerant management](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | HVAC Start-up credentialing](#)
- [EAc5 | Measurement and verification](#)
- [EAc5 | On-site renewable energy](#)
- [EAc5 | Measurement and verification](#)
- [EAc5.1 | Measurement and verification - base building](#)
- [EAc5.1 | Performance measurement - enhanced metering](#)
- [EAc5.1 | Measurement and verification - base building](#)
- [EAc5.1 | Measurement and verification - base building](#)
- [EAc5.2 | Measurement and verification - tenant submetering](#)
- [EAc5.2 | Measurement and verification - tenant submetering](#)
- [EAc5.2 | Performance measurement - enhanced metering](#)
- [EAc5.2 | Measurement and verification - tenant submetering](#)
- [EAc5.2 | Measurement and verification - tenant submetering](#)
- [EAc5.3 | Performance measurement - enhanced metering](#)
- [EAc5.4 | Performance measurement - emission reduction reporting](#)
- [EAc6 | Emissions reduction reporting](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc6 | Space heating and cooling equipment](#)
- [EAc6 | Green power](#)
- [EAc6 | Emissions reduction reporting](#)
- [EAc6 | Documenting sustainable building cost impacts](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc6 | Building orientation for passive solar](#)
- [EAc6 | Green power](#)
- [EAc6 | Green power](#)
- [EAc7 | Community contaminant prevention - airborne releases](#)
- [EAc7 | Water heating](#)
- [EAc7 | Air infiltration](#)
- [EAc8 | Lighting](#)
- [EAc8 | Envelope Insulation](#)
- [EAc9 | Appliances](#)
- [EAc9 | Windows](#)
- [EAp1 | Fundamental commissioning of building energy systems](#)
- [EAp1 | Fundamental commissioning of building energy systems](#)
- [EAp1 | Energy efficiency best management practices - planning, documentation and opportunity assessment](#)
- [EAp1 | Fundamental commissioning of building energy systems](#)
- [EAp1 | Fundamental commissioning of the building energy systems](#)
- [EAp1 | Energy efficiency best management practices - planning, documentation and opportunity assessment](#)
- [EAp1 | Fundamental commissioning](#)
- [EAp1 | Existing building commissioning](#)
- [EAp1 | Fundamental commissioning of the building energy systems](#)
- [EAp1 | Fundamental commissioning of the building energy systems](#)
- [EAp1 | Fundamental building systems commissioning](#)
- [EAp1 | Fundamental building systems commissioning](#)
- [EAp1 | Minimum energy performance](#)
- [EAp1 | Minimum energy performance](#)
- [EAp1 | Fundamental commissioning of the building energy systems](#)
- [EAp1 | Fundamental Commissioning](#)
- [EAp1 | Fundamental commissioning of building energy systems](#)
- [EAp1 | Fundamental commissioning of building energy systems](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy efficiency performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy efficiency performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Energy metering](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp2 | Minimum energy performance](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp3 | Refrigerant management - ozone protection](#)

- [EAp3 | CFC reduction in HVAC/R equipment](#)
- [EAp3 | Ozone protection](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp3 | CFC reduction in HVAC/R equipment](#)
- [EAp3 | CFC reduction in HVAC/R equipment](#)
- [EAp3 | Education of homeowner, tenant, or building manager](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp3 | CFC reduction in HVAC&R equipment](#)
- [EAp3 | Fundamental refrigerant management](#)
- [EAp4 | Home size](#)
- [MEAc1 | Optimize energy performance in mid-rise buildings](#)

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| v4 - LEED v4

Lighting

Possible 2 points

1 result in All .

- [Glossary](#)

Intent

To reduce the energy consumption associated with interior and exterior lighting.

Requirements

Case 1. Single Family

Option 1. Indoor Lighting (1.5 points)

Install high-efficacy lighting. Meet or exceed the requirements for lighting power [density](#) for hard-wired fixtures, as listed in Table 1.

Table 1. Points for reducing lighting power density

Maximum lighting power density (W/sf)		Points
W/sq. ft.	W/sq. m.	
0.72	7.7	0.5
0.60	6.5	1
0.48	5.2	1.5

The proposed fixtures used to calculate energy savings must be capable of meeting the recommended light levels (weighted average footcandles) in the Illuminating Engineering Society Lighting Handbook, 9th edition, for the given space type. Either calculate the needs for each space type, or use 16 as the weighted average footcandles for the home.

In calculating lighting power density, follow these guidelines:

- Use a lighting power density of 1.1 W per square foot (11.8 W per square meter) for rooms or portions of any rooms with less than the required hardwired lighting.
- Account for all hard-wired fixtures in the home, including the garage and exterior lights (whether affixed to the home or freestanding).
- Do not include portable table and floor lamps, appliance lights, or landscape lights.
- Include step lights and undercabinet and cabinet lights.
- For standard incandescent (a-line medium screw base) bulbs, assume 64 watts per socket.
- For LED and Xenon lights, use actual wattages.
- For fluorescent lighting, calculate wattage based on the assumptions in Table 2 or use the actual wattages installed.

Table 2. Assumptions for bulb wattage

	<i>Watts</i>
CFL twist	14
CFL Covered	14
CFL	
Candelabra	9
Incandescent	64
Incandescent	
Candelabra	40
MR16	40

AND/OR

Option 2. Exterior Lighting (0.5 point)

All exterior lighting must be Dark Sky qualified and have motion sensor controls, integrative photovoltaic cells, photosensors, or astronomic time-clock operation.

The following lighting is exempt: [emergency lighting](#), lighting required by code for health and safety purposes, and lighting used for eye adaptation near covered vehicle entrances or exits.

Case 2. Multifamily

Option 1. Indoor Lighting (1.5 points)

Install high-efficacy lighting and/or lighting controls that achieve a reduction from the ENERGY STAR baseline. Complete the ENERGY STAR multifamily midrise worksheet for interior lighting.

Table 3. Points for reducing interior lighting from baseline

Percentage reduction	Points
35%	0.5
45%	1

AND/OR**Option 2. Exterior Lighting (0.5 point)**

Complete the ENERGY STAR multifamily midrise worksheet for exterior lighting. Reduce exterior lighting wattage by at least 50%. All exterior lighting must be Dark Sky qualified.

Credit only available for projects using the EA prescriptive path'

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