



CHAPTER 2: DEFINITIONS

Section 201 Acronyms

201.1 The following acronyms are used throughout the guideline.

BAS	Building automation systems
BOD	Basis of design
CxA	Commissioning agency
EPA	Environmental Protection Agency
FPT	Functional performance test
HVAC	Heating, ventilating and air conditioning
LEED	Leadership in Energy and Environmental Design
O&M	Operations and maintenance
OPR	Owner's project requirements

Section 202 General Definitions

202.1 Acceptance criteria. The conditions that must be met for systems or equipment to meet defined expected outcomes.

202.2 Commissioning (Cx). A process that verifies and documents that the selected building and site systems have been designed, installed and function in accordance with the owner's project requirements and construction documents, and minimum code requirements.

Note from the Commissioning Guideline Committee: Building commissioning involves a quality-assurance process that begins during the predesign phase, and extends through design phases, construction and continues post occupancy. Commissioning verifies that the new building systems are installed and operate as intended, and that building staff are prepared to operate and maintain its systems and equipment.

202.3 Commissioning agency (CxA) An established and recognized agent or agency regularly engaged in conducting tests and furnishing commissioning services. The agency may consist of one or multiple individuals having various expertises. The Commissioning Agency can be a third-party commissioning provider or the owner's in-house staff member.

202.4 Commissioning process. The process by which specific documents, components, equipment, assemblies, systems and interfaces among systems are confirmed to comply with the criteria described in the Owner's Project Requirements and other approved project documents.

202.5 Commissioning team. The key members of each party involved with the project designated to provide insight and carry out tasks necessary for a successful commissioning project. Team members may include the commissioning agency, owner or owner's representative, building staff, design professionals, contractors or manufacturer's representatives, and testing specialists.



**OWNER'S PROJECT REQUIREMENTS SAMPLE COMPLIANCE FORM
(2012 IgCC)**

Incorporate This Form into the Plans

Project Address: _____ Permit Number: _____

Item#	OPR ITEMS	PAGE NUMBER IN OPR DOCUMENT
Project Program		
1	General building information (e.g., size, stories, construction type, occupancy type and number)	
2	Intended uses and schedules	
3	Future expandability and flexibility of spaces	
4	Quality and/or durability of materials and desired building lifespan	
5	Budget or operation constraints	
Environmental and Sustainability Goals		
6	Level of compliance with the IgCC	
7	Specific environmental or sustainability goals (e.g., water efficiency, water reuse, CO ₂ monitoring, xeriscaping, etc.)	
Energy Efficiency Goals		
8	Overall efficiency of building shall meet the IECC or exceed by ____ percent	
9	Lighting system efficiency shall meet the IECC or exceed by ____ percent	
10	HVAC equipment efficiency and characteristics	
11	Other measures affecting energy efficiency desired by the owner (e.g., building orientation, shading, daylighting, natural ventilation, renewable power, etc.)	
Indoor Environmental Quality Requirements		
12	Lighting	
13	Temperature and humidity	
14	Acoustics	
15	Air quality, ventilation and filtration	
16	Desired adjustability of system controls	
17	Accommodations for after-hours use	
18	Other owner requirements (e.g., natural ventilation, daylighting, views, etc.)	
Equipment and Systems Expectations		
19	Level of quality, reliability, equipment type, flexibility, maintenance and complexity desired	
20	Specific efficiency targets, desired technologies or preferred manufacturers for building systems, acoustics and vibration	
21	Degree of system integration, automation and functionality for controls (e.g., load shedding, demand response, energy management, etc.)	
Building Occupant and O&M Personnel Expectations		
22	Description of how the building will be operated and by whom	
23	Level of training and orientation required to understand, operate and use the building systems for building operation and maintenance staff, as well as occupants	
24	Building operation and maintenance staff location and capabilities	

(continued)



Table 605
Lighting and Electrical

RELATED SYSTEMS, EQUIPMENT, ASSEMBLIES AND COMPONENTS	TASKS/COMMENTS
<p>Lighting and Electrical:</p> <ul style="list-style-type: none"> • Automatic demand-reduction control system functionality • Plug load controls • Connection of appliances to switched receptacles • Verification of transformer nameplate efficiency • Lamps (lighting installations) • Ballasts (lighting installations) 	<ul style="list-style-type: none"> • Devices installed per manufacturer's instructions and specifications.
<ul style="list-style-type: none"> • Lighting control systems (low voltage) 	<ul style="list-style-type: none"> • Verify a representative sample of zones for sweep warning effectiveness, override capability and zone size. • Test accuracy of schedule, sweep warning system and sweep override switches.
<ul style="list-style-type: none"> • Automatic daylight harvesting 	<ul style="list-style-type: none"> • Verify photosensors are properly placed and aimed. • Verify daylight control zones correspond to available daylight. • Calibrate dimming set points without the presence of daylighting. • Calibrate dimming gain in presence of daylighting. • Calibrate switching deadbands and set points. • Performance test a representative sample of daylight zones.
<ul style="list-style-type: none"> • Occupancy and vacancy sensors 	<ul style="list-style-type: none"> • Calibrate sensitivity sensor and time delay adjustment. • Performance test a representative sample of control zones, including entry tests, hand-motion tests and perimeter tests.

Optional Items (not required by the IgCC)

RELATED SYSTEMS, EQUIPMENT, ASSEMBLIES AND COMPONENTS	TASKS/COMMENTS
<p>Medium-voltage:</p> <ul style="list-style-type: none"> • Substations • Switches • Circuit breakers • Switchgear • Switchboards • Panel boards • Emergency systems 	<ul style="list-style-type: none"> • Verify coordination study is complete, and that breaker and relay settings are set in accordance with the study. • Witnessing of factory tests, as appropriate. • Ensure all necessary representatives are present (e.g., installer, factory representative, etc.). • Review start-up checklist. • Test transformers. • Test protective devices. • Test control circuits, e.g., potential transformers and current transformers. • Test switchgear, e.g., electrical and mechanical operations. • Test circuit breakers. • Local operational tests. • Remote operational tests, if applicable. • Verify training of operating personnel for O&M of equipment.

