

IgCC



2019 GROUP B PUBLIC COMMENT AGENDA

OCTOBER 23 - 30, 2019
RIO HOTEL AND CONVENTION CENTER
LAS VEGAS, NV

2019 Public Comment Agenda

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GG1-19

IGCC®: SECTION 101, 101.1, 101.2 (2.3), 101.2.2 (1.2), 101.3 (New), 101.3.1 (2.1), 101.3.1 (2.2), 101.4 (1.1), 101.5

Proposed Change as Submitted

Proponents: David Collins, representing SEHPCAC (SEHPCAC@iccsafe.org)

2018 International Green Construction Code

SECTION 101 GENERAL

101.1 Title. These regulations shall be known as the Green Construction Code of [NAME OF JURISDICTION] hereinafter referred to as “this code.”

Revise as follows:

~~101.3.3~~ **101.2 (2.3) General.** This code is intended to provide minimum requirements to be used in conjunction with the other codes and standards adopted by the jurisdiction. The requirements in this code shall not be used to circumvent any applicable safety, health, or environmental requirements.

Delete without substitution:

~~101.2.2 (1.2)~~ This code is intended to provide the technical basis of mandatory building codes and regulations for *high-performance green buildings* that are broadly adoptable by national and local jurisdictions.

Add new text as follows:

101.3 Scope. The provisions of this code shall apply to the design, construction, addition, alteration, change of occupancy, relocation, replacement, equipment, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures and to the building site on which the building is located. Occupancy classifications shall be determined in accordance with the *International Building Code*.

Delete without substitution:

~~101.3.1 (2.1)~~ This code contains requirements that address site sustainability, water use efficiency, energy efficiency, indoor environmental quality (IEQ), materials and resources, and construction and plans for operation. This code applies only to the following *building projects*:

- ~~1. New buildings and their systems.~~
- ~~2. New portions of buildings and their systems.~~
- ~~3. New systems and equipment in existing buildings.~~
- ~~4. Relocated existing buildings and temporary structures where specified in this code.~~

Revise as follows:

~~101.3.2~~ **101.3.1 (2.2)** The provisions of this code do not apply to the following:

1. Single-family dwellings.
2. Multifamily dwellings of three stories or fewer above grade.
3. Manufactured houses (mobile homes).
4. Manufactured houses (modular).
5. *Building projects* that use none of the following:
 1. Electricity.
 2. Fossil fuels.
 3. Water.

~~(Informative note Exception:~~ The provisions in Appendix J for residential and multifamily construction apply where adopted by the authority having jurisdiction.) jurisdiction.

~~101.2.1~~ **101.4 (1.1) Intent.** The purpose-intent of this code is to provide minimum requirements for the siting, design, construction, and plans for operation of *high-performance green buildings* to: reduce emissions from buildings and building systems; enhance building occupant health and comfort; conserve water resources; protect local biodiversity and ecosystem services; promote sustainable and regenerative materials cycles; enhance building quality; enhance resilience to natural, technological, and human-caused hazards; and support the goal of development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

~~101.4.1(4.1)~~ **101.5 General Compliance.** *Building projects* shall comply with this code. ~~Within each of Chapters 5 through 11. Within each of these chapters 11,~~ *building projects* shall comply with all mandatory provisions (x.3) and, where offered, either the:

1. Prescriptive Option (x.4) or
2. Performance Option (x.5).

Reason: This proposal correlates the standard ICC Chapter 1 language with the administration language contained in ASHRAE Standard 189.1. New Section 101.2 (General) is a standard ICC section. In the 2018 IgCC it was covered, in essence, by Sections 101.2.2 and 101.3.3.

New Section 101.3 (Scope) is standard ICC scoping language.

2018 IgCC Section 101.3.2 is renumbered (no change to text) as Section 101.3.1 and is retained as a list of what are essentially exceptions to the scope.

2018 IgCC Sections 101.2.1 and 101.3.1 (Purpose and Scope) are now more appropriately combined and retitled as Section 101.4, Intent.

"Informative Notes" are typical in ASHRAE standards; in this proposal the informative note is clearly indicated as what it actually is: an exception.

The provisions of 2018 IgCC Sections 101.2 and 101.2.1 (Purpose) and 101.3.1 (Scope) are more appropriately relocated and retitled as Section 101.3, Intent.

The title of new Section 101.5 has been changed from "Application/General" to "Compliance" to differentiate it from the Section 102, Applicability.

This proposal is submitted by the ICC Sustainability, Energy and High Performance Code Action Committee (SEHPCAC). The SEHPCAC was established by the ICC Board of Directors in July of 2011 to pursue opportunities to improve and enhance the IECC, the IgCC and the energy provisions of the IRC. The SEHPCAC held 4 open meetings in 2018. In addition, there were numerous Working Group meetings and conferece calls for the current code development cycle, which included members of the committee as well as interested parties, to discuss and debate the proposed changes. Related documentation and reports are posted on the SEHPCAC website at: <https://www.iccsafe.org-tech-support/codes/code-development-process/sustainability-energy-and-high-performance-code-action-committee-sehpcac>.

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This proposal reorganizes and clarifies the code. It does not create any technical changes that would affect construction costs.

GG1-19

Public Hearing Results

Committee Action:

As Modified

Committee Modification:

101.3.1 (2.2) The provisions of this code do not apply to the following:

1. Single-family dwellings.
2. Multifamily dwellings of three stories or fewer above grade.
3. Manufactured houses (mobile homes).
4. Manufactured houses (modular).
5. *Building projects* that use none of the following:
 1. 5.1. Electricity.
 2. 5.2. Fossil fuels.
 3. 5.3. Water.

~~**Exception:** The provisions in Appendix J for residential and multifamily construction apply where adopted by the authority having jurisdiction.~~

Committee Reason: This proposal does not, and is not intended to, make technical changes what so ever to the technical content as developed by ASHRAE. It is intended to cleanup the administrative language that was merged together from previous versions of the IgCC and ASHRAE 189.1, which have their own administration provisions. As noted in testimony, this is intended to bring the IgCC in line with other provisions of the I-codes and keep them correlated.

Modification reason: The committee approved GG4 which provides pointers to Appendix H and Appendix J. This modification eliminates duplication and confusion and is an appropriate modification.

(Vote: 5-0)

Assembly Action:

None

GG1-19

Individual Consideration Agenda

Public Comment 1:

Proponents:

Steven Rosenstock, representing Edison Electric Institute (srosenstock@eei.org)

requests Disapprove

Commenter's Reason: This proposal should be disapproved for the following reasons:

-The language is completely different from the scope of ASHRAE Standard 189.1, 2017 version.

-The language will likely be completely different from the scope of the 2020 version of ASHRAE Standard 189.1.

-The language states that it applies to "every building", while the current IGCC scope and Standard 189.1 state that it only applies to high-performance green buildings.

-This scope mentions demolition, where the 189.1 scope does not.

-The 189.1 scope mentions sustainability, water efficiency, energy efficiency, indoor environmental quality, and materials where this scope does not.

-Under the ASHRAE continuous maintenance process, all parts of the Standard, including the title, purpose and scope, are subject to change at any time, from any interested party. If someone is successful in changing the purpose and/or scope in 189.1 within the next year, but the language is different from this scope, and his/her successful change does not appear in the IGCC, that could be grounds for appeal under the ANSI process.

Disapproving this revision will prevent any such conflicts.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. Disapproval will not change the current code language.

Public Comment# 1254

GG3-19

IGCC@: 101.4.1(4.1), Table 101.4.1 (New)

Proposed Change as Submitted

Proponents: David Collins, representing SEHPCAC (SEHPCAC@iccsafe.org)

2018 International Green Construction Code

Revise as follows:

101.4.1(4.1) General. *Building projects* shall comply with Chapters 5 through ~~4+~~ 11. Within each of these chapters, *building projects* shall comply with all mandatory provisions (x.3) and, where offered, either the:

1. Prescriptive Option (x.4) or
2. Performance Option (x.5).

Exceptions:

1.Compliance shall not be required with Sections that are listed in Table 101.4.1 where the jurisdiction has opted out by checking "No" in the corresponding cell in the jurisdictional requirement column.

2.Where the jurisdiction has indicated a diversion percentage for Section 5.3.8.1 in Table 101.4.1, that percentage shall replace the diversion percentage indicated in Section 5.3.8.1.

Add new text as follows:

**Table 101.4.1
REQUIREMENTS DETERMINED BY THE JURISDICTION**

Section	Section Title	Jurisdictional Requirement
Chapter 5 - Site Sustainability		
5.3.3.2	<u>Greenfield Sites</u>	No
5.3.5.2	<u>Mitigation of Heat Island Effect - Walls</u>	No
5.3.6	<u>Reduction of Light Pollution</u>	No
5.3.7.1.1.1	<u>Public Frontage Walkway</u>	No
5.3.7.1.2	<u>Bicycle Paths</u>	No
5.3.7.2	<u>Bicycle Parking</u>	No
5.3.7.3	<u>Preferred Parking</u>	No
5.3.8.1	<u>Building Site Waste Management - Diversion Percentage</u>	90%
		75%
		50%
Chapter 6 - Water Use Efficiency		
6.3.1.2	<u>Irrigation</u>	No
6.3.3	<u>Special Water Heater Features</u>	No
6.3.4.2	<u>Consumption Data Collection</u>	No
6.3.4.3	<u>Data Storage and Retrieval</u>	No
6.3.8	<u>Dual Water Supply Plumbing</u>	No
Chapter 7 - Energy Efficiency		
7.3.4	<u>Automated Demand Response</u>	No
7.4.2.1	<u>Building Envelope Requirements</u>	No
7.4.2.2	<u>Single Rafter Roof Insulation</u>	No
7.4.2.3	<u>High Speed Doors</u>	No
7.4.2.4	<u>Air Curtains</u>	No
7.4.2.6	<u>Permanent Projections</u>	No
7.4.2.9	<u>Orientation</u>	No
7.4.3.2	<u>Ventilation Controls for Densely Occupied Spaces</u>	No
7.4.3.4	<u>Economizers</u>	No
7.4.3.5	<u>Zone Controls</u>	No
7.4.3.6	<u>Fan System Power and Efficiency</u>	No
7.4.3.7	<u>Exhaust Air Energy Recovery</u>	No
7.4.3.8	<u>Kitchen Exhaust Systems</u>	No
7.4.3.10	<u>Automatic Control of HVAC and lights in Hotel/Motel Guest Rooms</u>	No
7.4.4.2	<u>Insulation for Spa Pools</u>	No
7.4.6.2	<u>Occupancy Sensor Controls with Multilevel Switching or Dimming</u>	No
7.4.6.3	<u>Automatic Controls for Egress and Security Lighting</u>	No
7.4.6.4	<u>Controls for Exterior Sign Lighting</u>	No
7.4.6.5	<u>Parking and Outdoor Sales Lighting</u>	No
7.4.7.2	<u>Supermarket Heat Recovery</u>	No
7.4.7.3.1	<u>ENERGY STAR Requirements for Equipment not Covered by Federal Appliance Efficiency Regulations (All Building Projects)</u>	No
7.4.7.4	<u>Programmable Thermostats</u>	No
7.4.7.5	<u>Refrigerated Display Cases</u>	No

Chapter 8 - Indoor Environmental Quality		
8.3.1.3.(b)	Ozone	No
8.3.1.4	Building Pressure	No
8.3.1.5.1	Vented Combustion	No
8.3.1.9	Guest Room Preoccupancy Outdoor Air Purge Cycle	No
8.3.1.10	Preoccupancy Ventilation Control	No
8.3.2	Thermal Environmental Conditions for Human Occupancy	No
8.3.3.4	Interior Sound Reverberation	No
8.4.1.3	Shading for Offices	No
Chapter 9 - Materials and Resources		
9.3.1.3	Construction Waste	No
Chapter 10 - Construction and Plans for Operation		
10.3.1.5.b	IAQ Construction management (Flush-out)	No
10.3.1.8	Construction Activity Pollution Prevention: Protection of Occupied Areas	No
10.3.1.9	Soil-Gas Control	No
10.3.2.1.1	Site Sustainability	No
10.3.2.1.2.2	Track and Access Water Use	No
10.3.2.1.2.3	Documentation of Water Use	No
10.3.2.1.3	Energy Efficiency	No
10.3.2.1.4	IAQ	No
10.3.2.4.2	Transportation Management Plan, Owner Occupied Building Projects or Portions of Building Projects	No
10.3.2.4.3	Transportation Management Plan, Building Tenant	No

Reason: This proposal is intended to increase adoptions of the IgCC by allowing jurisdictions to customize the code so that it may be more acceptable to more of the parties affected. The proposal generally simplifies the code for owners, designers, manufacturers, code officials and elected officials by identifying provisions that may not be suitable in all locations and allowing jurisdictions to opt out of them. All other code sections are considered to be core requirements, suitable for all jurisdictions and critically important in order to be considered a green or sustainable building. The user of Chapter 7 is required to comply with ASHRAE 90.1-2016 which saves more energy than the requirements that many jurisdictions now require. Many of the requirements listed in Table 101.4 for Chapter 7 are beyond those in ASHRAE 90.1 for the same topic.

This proposal is submitted by the ICC Sustainability, Energy and High Performance Code Action Committee (SEHPCAC). The SEHPCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance the IECC, the IgCC and the energy provisions of the IRC. The SEHPCAC held 4 open meetings in 2018. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as interested parties, to discuss and debate the proposed changes. Related documentation and reports are posted on the SEHPCAC website at: <https://www.iccsafe.org-tech-support/codes/code-development-process/sustainability-energy-and-high-performance-code-action-committee-sehpcac>.

Cost Impact: The code change proposal will decrease the cost of construction where jurisdictions opt-out of requiring compliance with code sections, construction costs decrease.

GG3-19

Public Hearing Results

Committee Action:

As Modified

Committee Modification:

Section	Section Title	Jurisdictional Requirement
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Chapter 5 - Site Sustainability		
5.3.3.2	Greenfield Sites	<input type="checkbox"/> No
5.3.5.2	Mitigation of Heat Island Effect - Walls	<input type="checkbox"/> No
5.3.6	Reduction of Light Pollution	<input type="checkbox"/> No
5.3.7.1.1.1	Public Frontage Walkway	<input type="checkbox"/> No
5.3.7.1.2	Bicycle Paths	<input type="checkbox"/> No
5.3.7.2 5.3.7.2.2	Bicycle Parking <u>Location</u>	<input type="checkbox"/> No
5.3.7.3 5.3.7.2.3	<u>Preferred Bicycle Parking , Horizontal Parking Racks</u>	<input type="checkbox"/> No
5.3.7.2.5	<u>Bicycle Parking, Security and Visibility</u>	<input type="checkbox"/> No
5.3.8.1	Building Site Waste Management - Diversion Percentage	<input type="checkbox"/> 90% <input type="checkbox"/> 75% <input type="checkbox"/> 50%
Chapter 6 - Water Use Efficiency		
6.3.1.2 6.3.1.2.1 a3	Irrigation <u>System Design, Master Valve</u>	<input type="checkbox"/> No
6.3.1.2.1 a4	<u>Irrigation System Design, Flow Sensors</u>	<input type="checkbox"/> No
6.3.3	Special Water Heater Features	<input type="checkbox"/> No
6.3.4.2	Consumption Data Collection	<input type="checkbox"/> No
6.3.4.3	Data Storage and Retrieval	<input type="checkbox"/> No
6.3.8	Dual Water Supply Plumbing	<input type="checkbox"/> No
Chapter 7 - Energy Efficiency		
7.3.4	Automated Demand Response	<input type="checkbox"/> No
7.4.2.1	Building Envelope Requirements	<input type="checkbox"/> No
7.4.2.2	Single Rafter Roof Insulation	<input type="checkbox"/> No
7.4.2.3	High Speed Doors	<input type="checkbox"/> No
7.4.2.4	Air Curtains	<input type="checkbox"/> No
7.4.2.6	Permanent Projections	<input type="checkbox"/> No
7.4.2.9	Orientation	<input type="checkbox"/> No
7.4.3.2	Ventilation Controls for Densely Occupied Spaces	<input type="checkbox"/> No
7.4.3.4	Economizers	<input type="checkbox"/> No
7.4.3.5	Zone Controls	<input type="checkbox"/> No
7.4.3.6	Fan System Power and Efficiency	<input type="checkbox"/> No
7.4.3.7	Exhaust Air Energy Recovery	<input type="checkbox"/> No
7.4.3.8	Kitchen Exhaust Systems	<input type="checkbox"/> No
7.4.3.10	Automatic Control of HVAC and lights in Hotel/Motel Guest Rooms	<input type="checkbox"/> No
7.4.4.2	Insulation for Spa Pools	<input type="checkbox"/> No
7.4.6.2	Occupancy Sensor Controls with Multilevel Switching or Dimming	<input type="checkbox"/> No
7.4.6.3	Automatic Controls for Egress and Security Lighting	<input type="checkbox"/> No
7.4.6.4	Controls for Exterior Sign Lighting	<input type="checkbox"/> No
7.4.6.5	Parking and Outdoor Sales Lighting	<input type="checkbox"/> No
7.4.7.2	Supermarket Heat Recovery	<input type="checkbox"/> No
7.4.7.3.1	ENERGY STAR Requirements for Equipment not Covered by Federal Appliance Efficiency Regulations (All Building Projects)	<input type="checkbox"/> No
7.4.7.4	Programmable Thermostats	<input type="checkbox"/> No
7.4.7.5	Refrigerated Display Cases	<input type="checkbox"/> No

Chapter 8 - Indoor Environmental Quality		
8.3.1.3.(b)	Ozone	<u> </u> No
8.3.1.4	Building Pressure	<u> </u> No
8.3.1.5.1	Vented Combustion	<u> </u> No
8.3.1.9	Guest Room Preoccupancy Outdoor Air Purge Cycle	<u> </u> No
8.3.1.10	Preoccupancy Ventilation Control	
8.3.2	Thermal Environmental Conditions for Human Occupancy	<u> </u> No
8.3.3.4	Interior Sound Reverberation	<u> </u> No
<u>8.3.4</u>	<u>Soil Gas Control</u>	<u> </u> No
8.4.1.3	Shading for Offices	<u> </u> No
Chapter 9 - Materials and Resources		
9.3.1.3 <u>9.3.1.2</u>	Construction <u>Total Waste</u>	<u> </u> No
Chapter 10 - Construction and Plans for Operation		
10.3.1.5.b	IAQ Construction management (Flush-out)	<u> </u> No
10.3.1.8	Construction Activity Pollution Prevention: Protection of Occupied Areas	<u> </u> No
10.3.1.9	Soil-Gas Control	<u> </u> No
10.3.2.1.1	Site Sustainability	<u> </u> No
10.3.2.1.2.2	Track and Access Water Use	<u> </u> No
10.3.2.1.2.3	Documentation of Water Use	<u> </u> No
10.3.2.1.3	Energy Efficiency	<u> </u> No
10.3.2.1.4	IAQ	<u> </u> No
<u>10.3.2.3</u>	<u>Service Life Plan</u>	<u> </u> No
10.3.2.4.2	Transportation Management Plan, Owner Occupied Building Projects or Portions of Building Projects	<u> </u> No
10.3.2.4.3	Transportation Management Plan, Building Tenant	<u> </u> No

Committee Reason: Scottsdale, Arizona has relied on similar lists contained in the 2012 and 2015 IgCC to customize the code for their specific needs. The list does not tamper with the technical requirements of ASHRAE Standard 189.1. As indicated in testimony, other jurisdictions such as those in Colorado and Washington D.C. have also found such lists beneficial in their adoption to customize the code for their specific needs. The Building Codes Assistance Project advocates for the IgCC and has found that most jurisdictions that have adopted the IgCC have used such lists of options. Such options can save years in the adoption process.

This list of options will make the IgCC more adoptable.

The modification updates the list of jurisdictional requirement options to coincide with the most recent efforts of the ASHRAE Standard 189.1 committee in the development of a similar list. There will likely be further updates in the Public Comment period.

(Vote: 5-0)

Assembly Action:

None

GG3-19

Individual Consideration Agenda

Public Comment 1:

IGCC@: Table 101.4.1 (New)

Proponents:

Greg Johnson, representing ICC Sustainability, Energy, and High Performance Code Action Committee (SEHPCAC)
(gjohnsonconsulting@gmail.com)

requests As Modified by Public Comment

Further modify as follows:

2018 International Green Construction Code

**Table 101.4.1
REQUIREMENTS DETERMINED BY THE JURISDICTION**

Portions of table not shown remain unchanged.

6.3.3	Special Water Heater Features	<input type="checkbox"/> No
7.4.3.6	Fan System Power and Efficiency	<input type="checkbox"/> No
7.4.3.10	Automatic Control of HVAC and lights in Hotel/Motel Guest Rooms	<input type="checkbox"/> No
8.3.1.4.2	Building Pressure Exfiltration	<input type="checkbox"/> No
8.3.1.5.1	Vented Combustion	<input type="checkbox"/> No
8.3.1.9	Guest Room Preoccupancy Outdoor Air Purge Cycle	<input type="checkbox"/> No
8.3.1.10	Preoccupancy Ventilation Control	
8.3.4	Soil Gas Control	<input type="checkbox"/> No
10.3.1.5.b	IAQ Construction management (Flush-out)	<input type="checkbox"/> No
10.3.1.9	Soil Gas Control	<input type="checkbox"/> No
10.3.2.1.2.2	Track and Access	<input type="checkbox"/> No
10.3.2.1.2.3	Documentation of Water Use	<input type="checkbox"/> No
10.3.2.1.3	Energy Efficiency	<input type="checkbox"/> No
10.3.2.1.4	IAQ	<input type="checkbox"/> No

Commenter's Reason: These changes are necessary to correlate the 2021 IgCC with the base document, ASHRAE Standard 189.1 -2020. These proposed modifications align with the most current requirements published by the ASHRAE 189.1 committee under its continuous maintenance process.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. These are administrative provisions related to adoption and subject to local determination. The impact on construction costs is impossible to assess.

Public Comment# 2038

Public Comment 2:

Proponents:

Steven Rosenstock, representing Edison Electric Institute (srosenstock@eei.org)

requests Disapprove

Commenter's Reason: This proposal should be disapproved for the following reasons:

-Under the ASHRAE 189.1 process, these tables are considered to be technical content. Revisions to these tables are currently being made through the ASHRAE process/procedures and will be going out for public review.

-It is very likely that this table will be different than the tables that are finalized for the 2020 version of ASHRAE Standard 189.1, especially if changes are made after the current IGCC process has been completed by November, 2019.

-Under the ASHRAE continuous maintenance process, all parts of the Standard, including the core / non-core requirements, are subject to change at any time, from any interested party. If someone is successful in changing one or more jurisdictional options (core / non-core) in 189.1 within the next year, but the language is different from this table, and his/her successful change does not appear in the IGCC, that could be grounds for appeal under the ANSI process. If a 2nd person is successful in changing the provision in the IGCC through the ICC process, but it does not appear in Standard 189.1, that could also be grounds for appeal.

Disapproving this proposal revision will prevent any such conflicts.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. Disapproval will not change the language in the current code.

Public Comment# 1260