



The 2018-IgCC Powered by 189.1

A new era for green building codes

- **Andrew Persily**, Chief of Energy & Environment Division, NIST; Chair of ASHRAE Standard 189.1
- **Dave Walls**, Executive Director of Sustainability Programs, ICC
- **Wes Sullens**, Director of Codes Technical Development, USGBC

Federal Interagency Sustainability Working Group
January 25, 2018

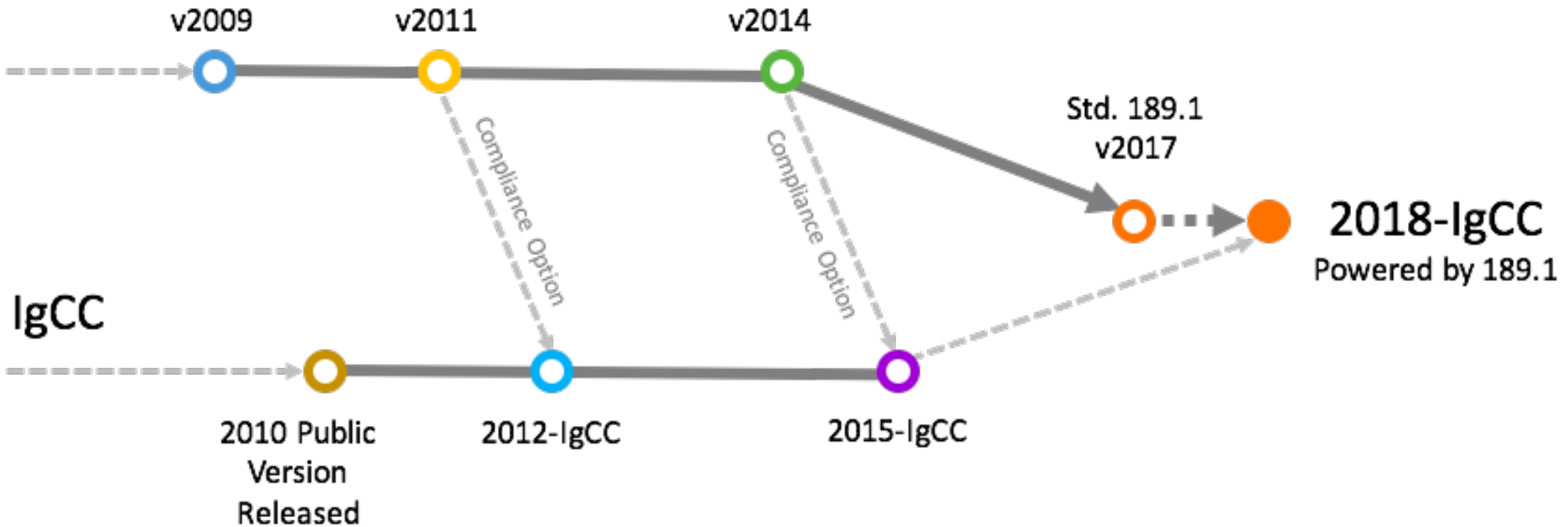


ASHRAE/ICC/IES/USGBC Standard 189.1-2017



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Standard 189.1



Background of Standard 189.1

Motivated by environmental impacts of buildings

- U.S. buildings: **39%** of CO₂ emissions; **40%** of energy; **12%** of water; **15%** of GDP
- Site biodiversity; rainwater management; environmental emissions; construction materials and waste

Committee formed in 2006: Standard published in 2009

Revised in 2011 and 2014: Project compliance option in 2012 and 2015 IgCC

Again in 2014: 2015 IgCC compliance option

189.1-2017 Approved: Technical content of 2018 IgCC



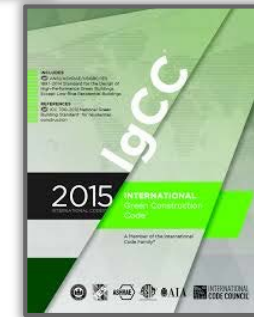
189/IgCC/LEED Alignment

Motivations

- Multiple documents generating confusion in building community
- Maximize impact of all our hard work
- To make more buildings more sustainable

MOU signed July 2014: AIA, ASHRAE, ICC, IES & USGBC

- Applies in U.S. and Canada
- Committee will revise 189.1 using ASHRAE procedures
- ICC will develop administrative and enforcement structure around 189.1



Standard 189.1: The Basics

- Minimum design requirements for high-perf green buildings
- Co-sponsored by ASHRAE, ICC, IES and USGBC
- ANSI standard under ASHRAE's ANSI-approved procedures; 189.1 committee responsible for content; open to input from all
- Written in mandatory, enforceable language; suitable for reference by building codes and other regulations

Under revision via continuous maintenance

- Discrete changes (addenda), public review and approval
- Anyone can submit a proposed change any time (CMP)



Summary of 189.1 Sections

- **Site provisions** to reduce landscape impact, urban heat island, light pollution and storm water runoff
- **Water-use provisions** to reduce water use
- **Energy-use and efficiency provisions** to reduce energy use, emissions and peak demand
- **IEQ provisions** to help keep building occupants comfortable, healthy and productive
- **Materials provisions** to reduce impact on resources as well as earth and atmosphere (reduce, reuse, recycle)
- **Construction and plans for operation** to help the building operate as intended by design team



Major changes in 189.1-2017

75 individual addenda

All sections updated to reflect updates to referenced standards, new technical information, and more practitioner and enforcement experience

- Adds resilience to scope
- Requires electrical infrastructure for EV parking/charging
- Makes all water efficiency requirements mandatory, eliminating performance option
- Requires real-time display of energy use
- Requires occupant IEQ survey



2018 International Green Construction Code



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ICC's vision for local adoptions of the 2018-IgCC Powered by 189.1

- An **Adoptable, Useable** and **Enforceable** MODEL building code.
- 2018-IgCC technical provisions from ASHRAE 189.1
- Administration provision and publication by ICC
 - Why local adoptions
 - Local Adoption Process
 - Current IgCC adoptions



Tools

Tools in development for aiding adoption and implementation:

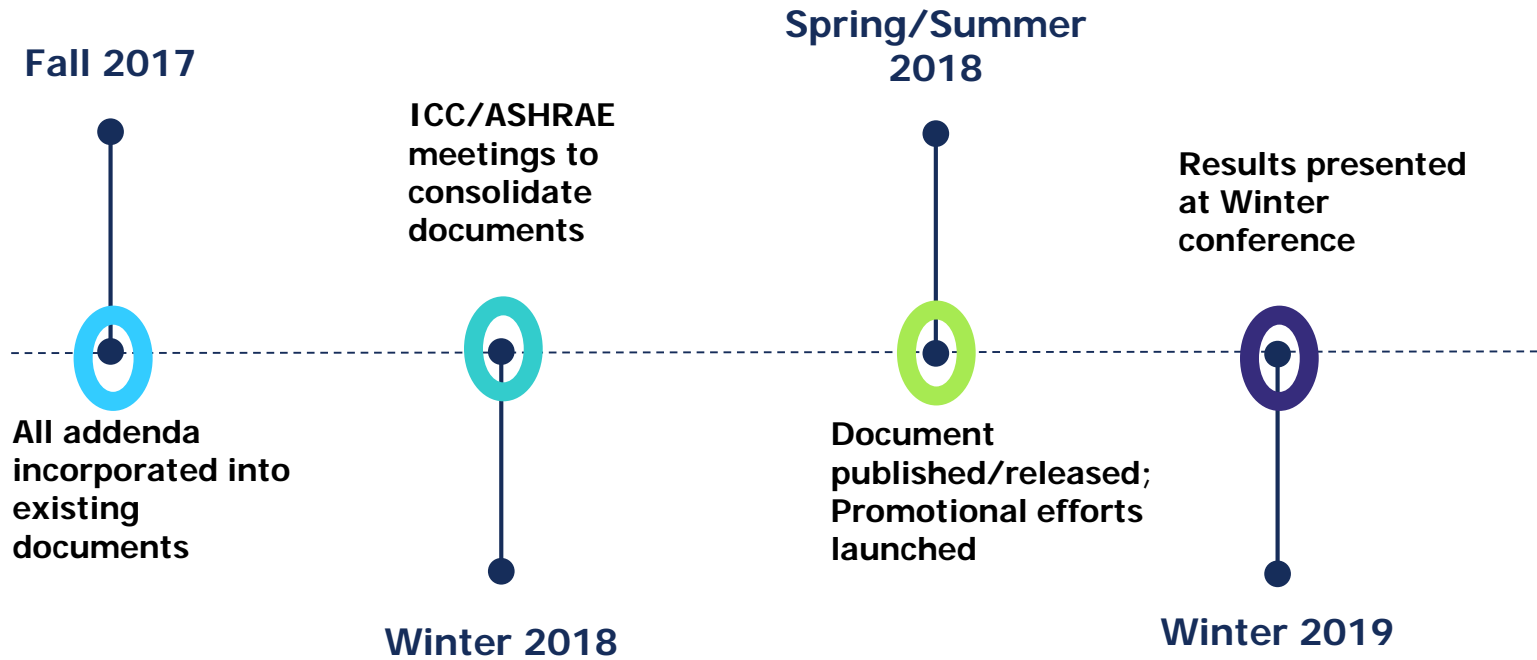
- **User's Manual**
- **Code and Commentary**
- **Certification**
- **Education and Training**
 - 3 Formats: Onsite, Online, Webinars
- **PPT Slide Deck**

How to get involved & learn more

- **Website(s)**
 - ASHRAE – Host
 - ICC
 - USGBC
- **Spread the Message**
 - Webinars
 - Social media
 - PPT Deck



2018 IgCC Timeline





Goals

*Working collaboratively with our industry partners is producing real results that will help **improve building performance, streamline regulation, reduce cost** and allow us to focus our resources on goals we have in common”*

Dominic Sims, ICC

CEO

August 21, 2014



How to Get Involved in Standard 189.1

Join the committee listserv www.ashrae.org/resources--publications/free-resources/

Attend a meeting as an observer
ASHRAE Winter and Annual meetings

Submit a public review comment www.ashrae.org/public-review-drafts

Submit a change proposal www.ashrae.org/standards-research--technology/standards--guidelines/continuous-maintenance

Join the committee
www.ashrae.org/standards-research--technology/standards-forms--procedures

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