# COG Built Environment and Energy Advisory Committee September 18, 2014

### **Evolution of Green Codes**



### **Green Building Ratings, Codes & Standards**





Water Efficiency



Energy & **Atmosphere** 



Indoor Environmental Quality



Innovation in



Design



**Regional Priority** 



- 5. Commercial | 4.Residential
- 5.1 Planning and Design

5.3 Water Efficiency & Conservation



5.5 Environmental Quality



Additional CALGreen Voluntary measures are required for Tier 1 & 2





Water Use Efficiency







Indoor Environmental Quality



**Construction and Operations Plans** 



Site Development and Land Use



**Energy Efficiency &** Atmospheric Quality

Indoor Environmental **Quality & Comfort** 

**Material Resource** Conservation

Commissioning, O&M



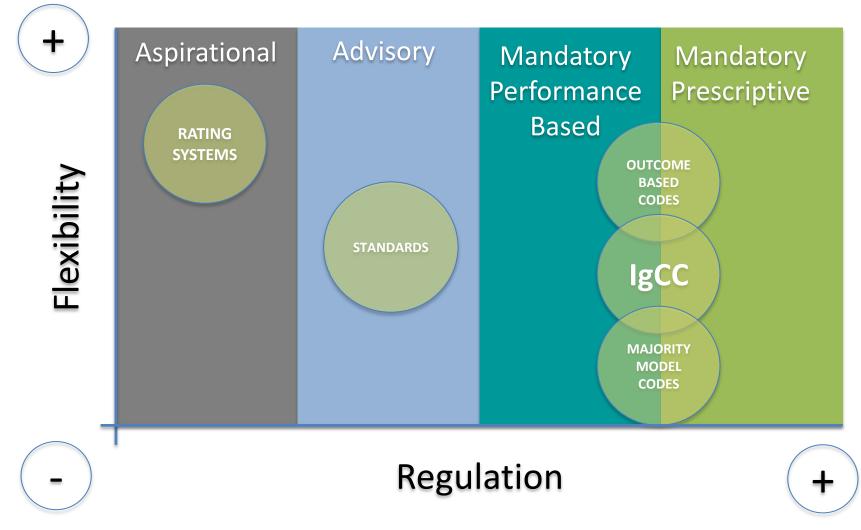
**Jurisdictional & Elective Requirements** 



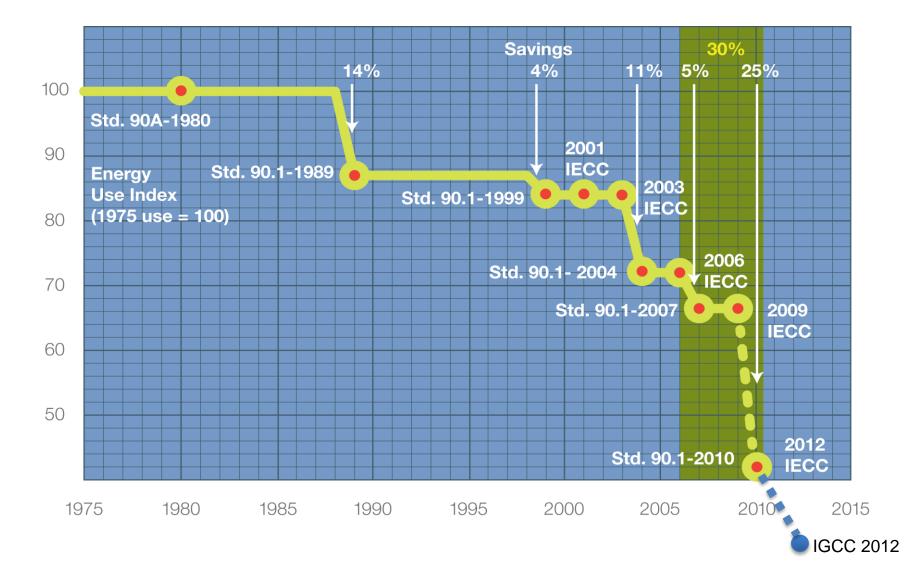
**Existing Buildings** & Sites

Source: Simon & Associates, Inc., International Code Council, Inc.,

### Where does the IgCC fit in?



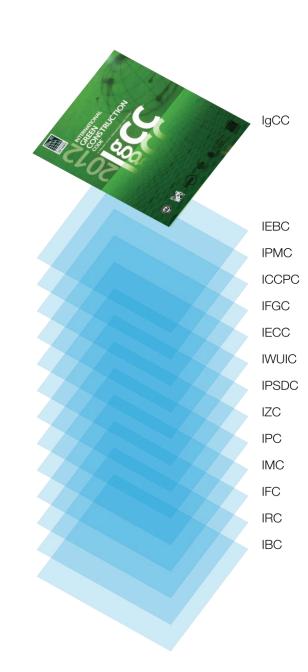
### History of IECC | IgCC Changes





## What is the IgCC?

- An "overlay" code
- Part of the International Codes Council (ICC) set of Building Codes
- Intended to be used in conjunction with other ICC codes
- Includes ASHRAE Standard 189.1 as an option for compliance.



#### ASHRAE | USGBC | IES | ANSI Standard 189.1

ANSI/ASHRAE/USGBC/IES Standard 189.1-2011 (Supersedes ANSI/ASHRAE/USGBC/IES Standard 189.1-2009)

#### Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings



A Compliance Option of the International Green Construction Code \*\*

See Appendix I for approval dates by the ASHRAE Standards Committee, the ASHRAE Board of Directors, the U.S. Green Building Council, the Illuminating Engineering Society of North America, and the American National Standards Institute.

This standard is under continuous maintenance by a Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for charge to any part of the standard. The charge submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE Web site (www.sahrae.org), or in paper form from the ASHRAE Munger of Standards.

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ISSN 1041-2336



## IgCC Key Concepts

- Uses model code development process
- Reflects 2030 Goals
- Minimum and advanced levels of performance and prescriptive options
- An overlay to the International Codes<sup>™</sup>
- Customizable to geopolitical and economic climate of the code locality
- Designed with Federal, State & Local laws in mind
- Provides a new regulatory framework for compliance assessment of sustainable construction practice



### What is in the IgCC?

- Ch.1-2: Administration and Definitions
- Ch. 3: Jurisdictional Requirements and Life Cycle Assessment
- Ch. 4: Site Development & Land Use
- Ch. 5: Material Resource Conservation and Efficiency
- Ch. 6: Energy Conservation, Efficiency and CO2 Emission Reduction
- Ch. 7: Water Resource Conservation, Quality and Efficiency
- Ch. 8: Indoor Environmental Quality and Comfort
- Ch. 9: Commissioning, Operations and Maintenance
- Ch.10: Existing Buildings
- Ch.11: Existing Building Site Development
- Ch.12: Referenced Standards
- App A: Project Electives
- App B: Radon Mitigation
- App C: Optional Ordinance
- App D: Enforcement procedures

### IgCC Adoptions

Jurisdictional adoptions of entire IgCC; compliance as fully mandatory – none yet, but expected.

IgCC as compliance *option* for commercial construction:
IgCC as compliance *option* local jurisdictions *may* adopt to meet state high-performance building standards
IgCC as compliance *option* for *government-owned or - funded construction*:

•Adoptions of *part of IgCC* 

•Jurisdictions with current IgCC working groups

New model codes take time to take root!

### What we have learned:

IgCC as an alternate compliance path to LEED

Cannot establish "equivalency"

- Opportunities to support local priorities
- •Not as easy as one would think it should be
- Consensus Building is critical
- •IgCC is probably the future

### Where do we go from here? IgCC and ASHRAE Standard 189.1

- ICC and ASHRAE have decided to work together to fully combine IgCC and Standard 189.1
- As it has since the IgCC's creation in 2009, AIA will continue to play a key role in this evolution so that it reflects the perspective of the practicing architect

### IgCC and ASHRAE Standard 189.1

- This change will be <u>supportive</u> of AIA's One Code Policy & their position statement on codes/standards/rating systems
- We anticipate that this change will affect the code no sooner than the 2018 version of the IgCC; the 2015 edition will be published next spring