



# INTERNATIONAL CODE COUNCIL

- **Zero Energy Homes: Where do the IECC and IgCC fit in to the picture?**



# Presentation Outline:

- Basic overview of ICC
- ICC Codes and Development Cycle
- 2012 IECC- 30% better than 2006
- The IGCC- overview, schedule and adoption



# ICC Codes and Standards

## 14 Codes- “The I-Codes”

- Building: IBC, IRC
- Fire: IFC, IWUIC
- Fuel Gas, Mechanical, Plumbing: IFGC, IMC, IPC, IPSDC
- Existing Buildings: IEBC, IPMC
- Specialty: IECC, ICC Perf, IZC
- *NEW: IgCC*

## ANSI Standards

- ICC/ANSI A-117, Accessibility
- ICC/ANSI 500- Storm Shelters
- ICC/ANSI 600- Hurricane Resistant Construction
- ICC/ANSI 700, Green Building





# ICC Model Codes: Developed Nationally, Adopted Locally

- 49 states adopt the *International Residential Code (IRC)* (state or local) a **model** code from the ICC. Covers all aspects of 1&2 family, and townhouses 3 stories or less: structural, life safety, plumbing, HVAC, electric, lighting, insulation, materials, energy, etc. (many provisions are reference stds, such as NFPA's NEC, various ASTM, AISC, ACI, etc.)
- Framework code, with many referenced standards, tables, etc.
- ICC model codes are revised and republished every 3 years.
- Jurisdictions often modify the model code, to meet local concerns.



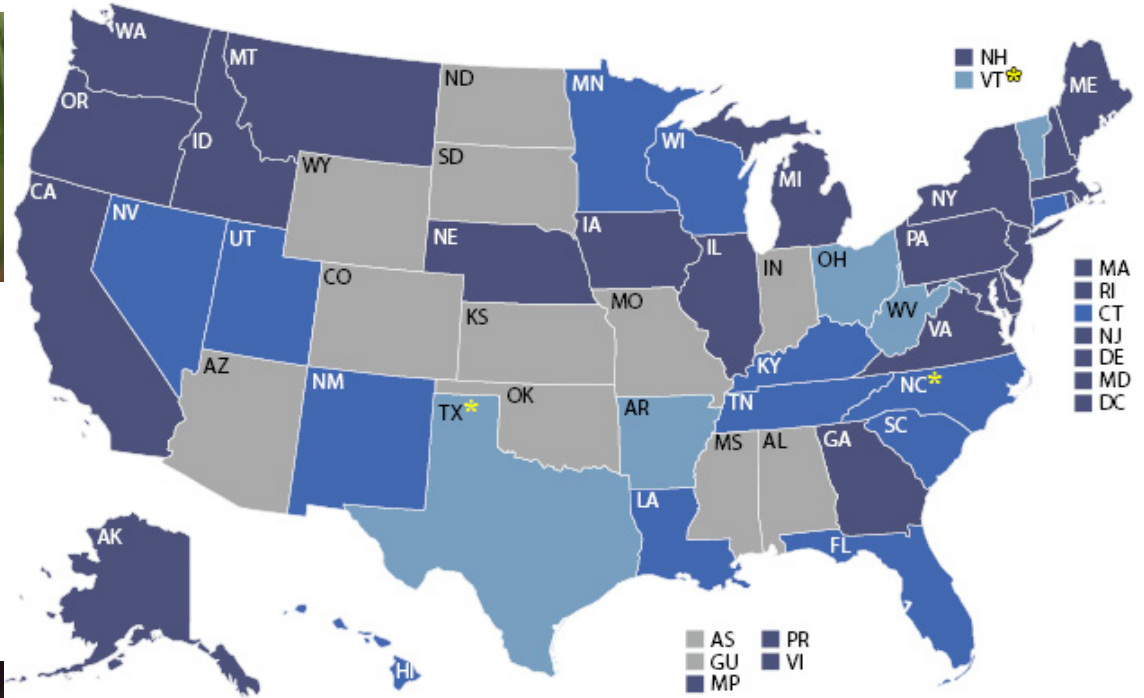
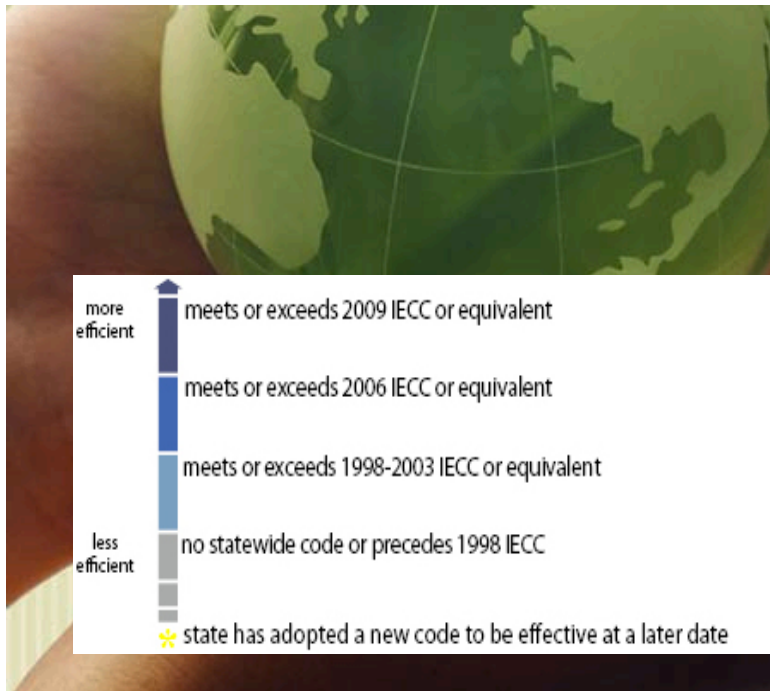
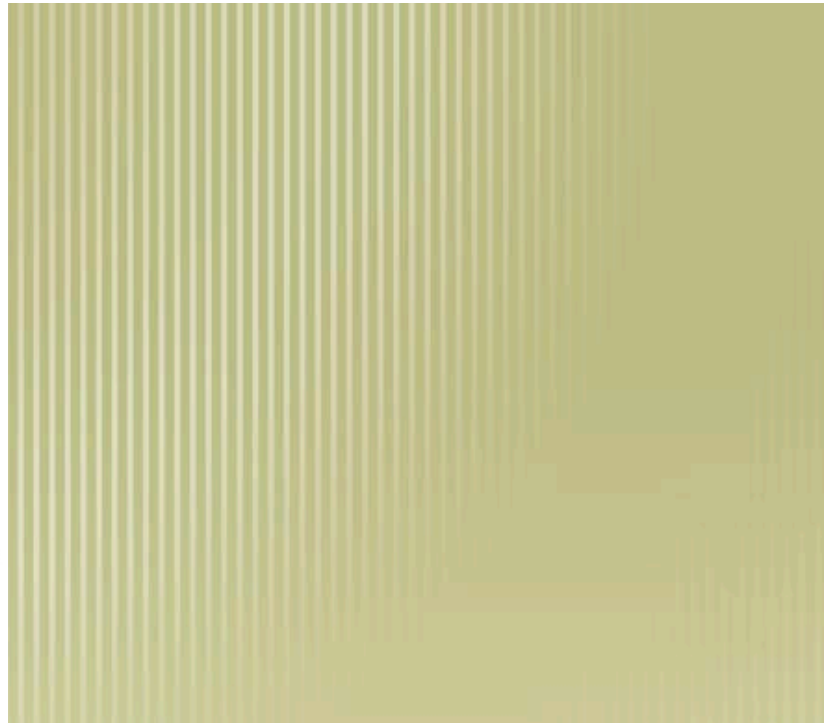
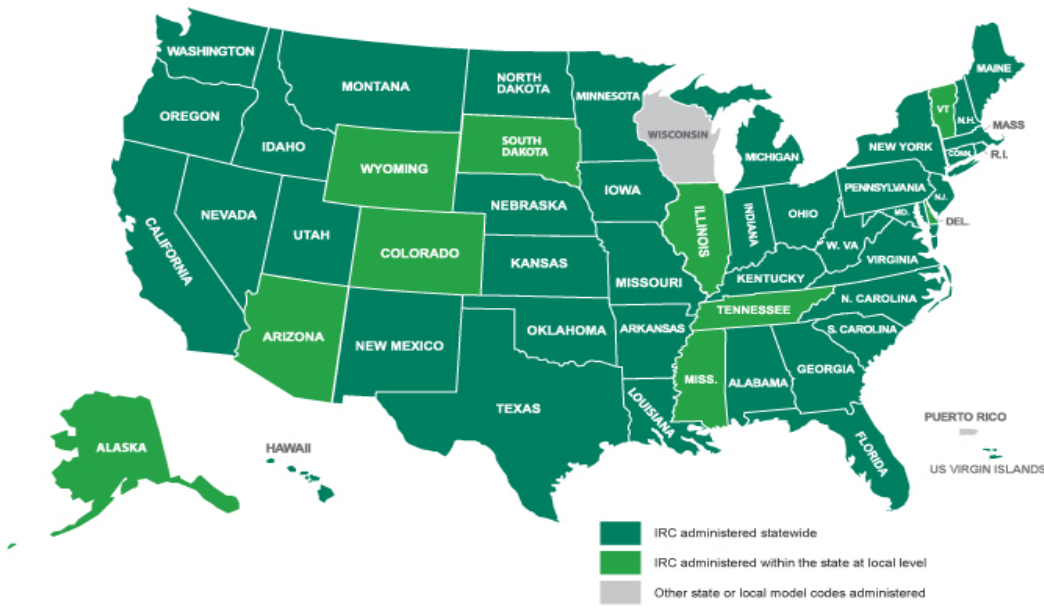
# ICC Model Energy Code- IECC



- IECC Ref. in Federal law & proposed bills
- 2009 IECC is 15% more energy efficient than 06, *on average*
- 2012 is 30% more efficient, on avg
- Challenge is wider adoption- 40+ states, but many older versions
- Political climate has shifted

# INTERNATIONAL RESIDENTIAL CODE ADOPTION MAP

The IRC is in use or adopted in 49 states, the District of Columbia and the U.S. Virgin Islands





# Why use the IECC to increase Energy Efficiency?

- Existing compliance infrastructure
- Existing acceptance & support mechanisms
- Simple adoption
- Allows for comparison w/ existing levels
- One code, 2 paths: Prescriptive and Performance
- Mainstreams advanced EE concepts / practices



# IGCC Code Development Timeline



- First Draft complete March 2010 (PV1)
- Agreement reached with ASHRAE, USGBC, IESNA to include 189.1 as optional compliance path
- Public Comment and review- 2010
- Revised draft (PV2) submitted for code development and final action hearings in 2011. Regular code cycle hearings in 2011.
- Will publish as 2012 IGCC, approximately February 2012
- IgCC (PV2) covers all commercial buildings and ONLY residential buildings of more than three stories above grade. (scope subject to Board modification)



# IGCC Subject Areas



1. Energy use efficiency- 30% more efficient than 2006 IECC/2004 ASHRAE & new zEPI to reach zero
2. Water use- 20% more eff.
3. Materials and resource use conservation
4. Indoor environment quality
5. Impact on environment (Greenhouse Gas/Carbon)
6. Site design
7. Sustainable building owner/facility management education
8. Existing buildings

# IGCC Concepts

- Uses the “model” code format, providing the ability to customize & modify
- Minimum & advanced levels of performance- Energy Eff. min. 30% over 2006 IECC
- New zEPI to measure against zero
- Work as an overlay to the ICC family of codes
- Written in mandatory language- a floor to work with LEED
- Adaptable, adoptable



# IGCC Adoptions/ Reviews

- RI, MD, FL adopted as vol. code.
- Richland, WA; Fort Collins, CO; Phoenix, AZ; Keene, NH; Several additional cities, all or part
- Kayenta Twp, AZ- (Navajo Tribal jurisd.)
- DOE reviewing under EPACT (FEMP rulemaking)





# Code Council information and updates



- ICC website at [www.iccsafe.org/cs](http://www.iccsafe.org/cs)
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