

International Green Construction Code (IgCC)

IgCC Compliance with the National Green Building Standard (NGBS)

Home Innovation Research Labs

- Founded in 1964
- Focused on residential construction
- Clients are architects, builders, developers, and product manufacturers
- Four categories of services:
 - Market Research
 - Product testing
 - Applied building science research
 - Standards developer
 - Accredited third-party lab and certification agency



ICC 700-2020
National Green
Building Standard®



2020 National Green Building Standard (NGBS)

- Voluntary, above-code green certification program
- For all residential occupancies
- American National Institute of Standards (ANSI) approved
- Part of ICC suite of I-Codes



What makes NGBS different?

- Comprehensive
- Practices for design, construction, verification, and operation
 - Written in code language
 - Few mandatory provisions
 - Expansive, flexible point-based system
 - Includes tropical climate zone provisions





NGBS Compliance

- Mandatory Practices
 - No exemptions
 - No points
 - Ensures baseline building performance nationwide
- Voluntary Practices
 - Awards points
 - Points based on difficulty level
 - Design, product/system selection, or construction-based practices
 - Minimum point requirements in each of 6 green building categories
 - 100% independent, third-party on-site verification



Home Innovation
NGBS GREEN CERTIFIED™

Certification program

- Home Innovation serves as certification agency
- Accredite third-party Verifiers to inspect residential buildings for NGBS compliance
- Certify homes and multifamily buildings as in compliance with NGBS
- Certification is conferred when construction complete, on-going or post-occupancy certification is not required





Certification Program Philosophy

- Eliminate barriers
 - Costs (real/perceived; direct/indirect)
 - Difficulty/Inflexibility
 - Processing or documentation hurdles
- Be a partner
- Create incentives
- Provide construction QA/QC
- Pivot as necessary

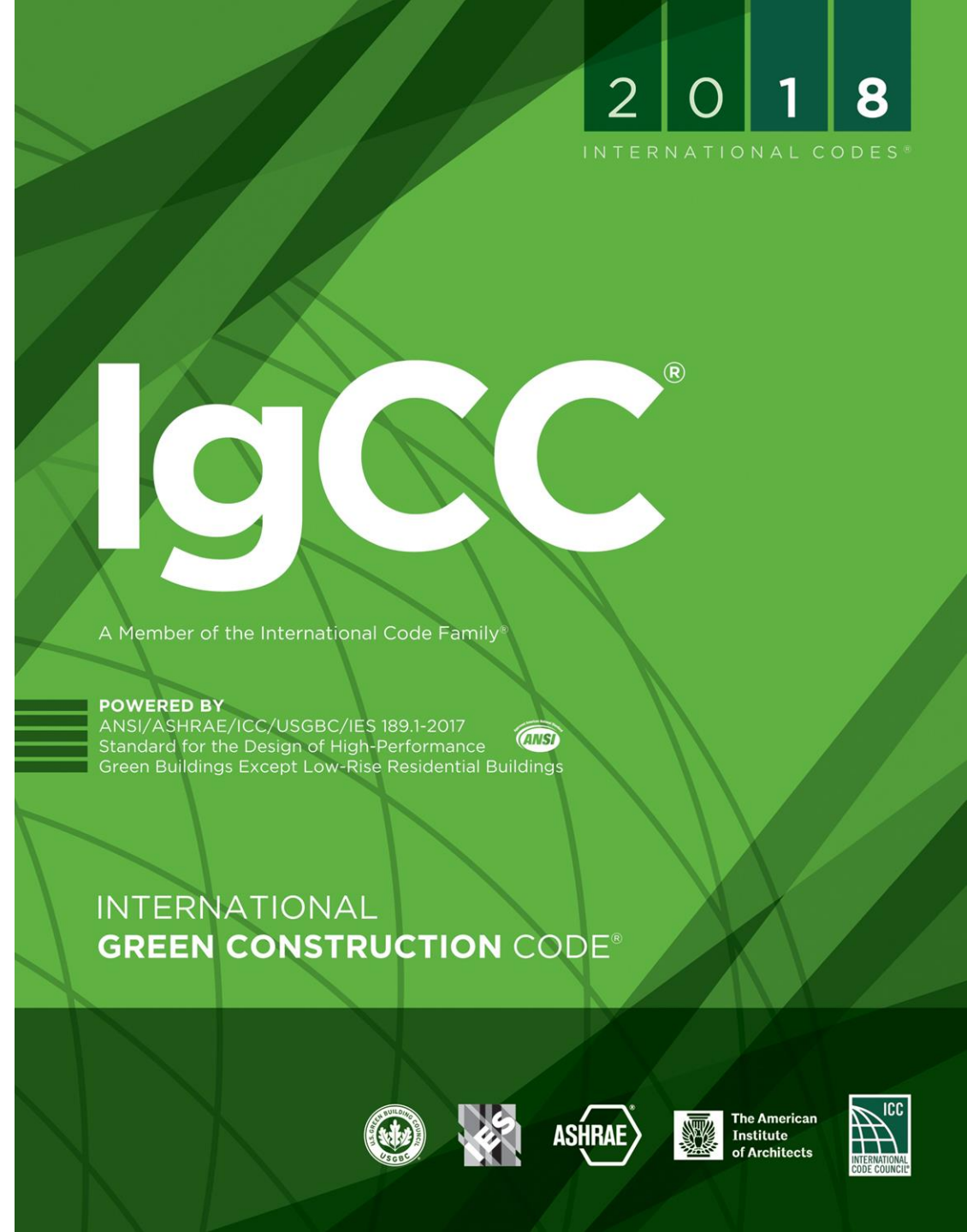
Our Philosophy

- **Builders should have a choice** in green certification programs
- ANSI-approved NGBS is national, credible, and affordable
- Most comprehensive green rating system because of green building category threshold requirements
- **Occupancy matters**; residential development has different financial and sustainability considerations than commercial/office development
- **We advocate for choice and third-party certification** to demonstrate compliance



International Green Construction Code (IgCC)

- Baseline, comprehensive green construction code to complement above-code voluntary green certification programs
- Developed by ICC, AIA, USGBC, ASHRAE
- Updated every 3 years, in alignment with the other ICC codes; latest version is 2018 IgCC



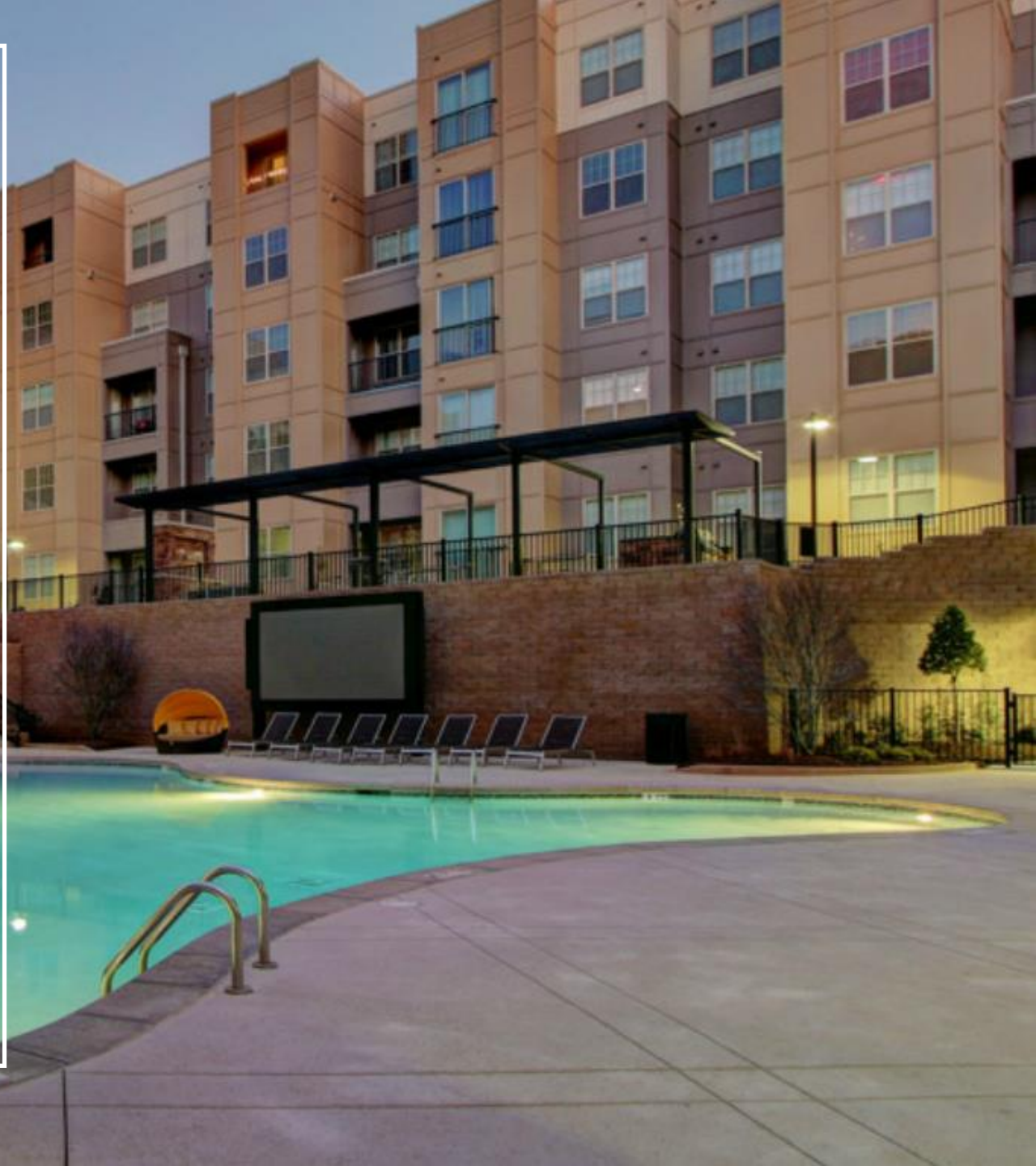
IgCC Applicability

- IgCC applies to buildings 4+ stories in height
- Jurisdictions can elect to make IgCC apply to SF and low-rise residential
- NGBS is alternative compliance path for residential buildings 4+ stories
- Sole compliance path for SF homes, townhomes, residential buildings < 4 stories
- NGBS inclusion within IgCC acknowledges its status as first and solely residential green code within I-Codes



WARNING: *Jurisdictions are unpredictable!*

- Jurisdictions may intentionally or unwittingly omit or revise IgCC Chapter 1, which allows NGBS as alternative compliance path
 - May not fully recognize that IgCC covers mid- and high-rise residential
 - May not realize that NGBS applies to high rise residential
 - May not understand NGBS can be used as an alternative compliance path
- Recommend working closely with local Adopting Entity to ensure the NGBS compliance path remains an option



IgCC Statewide Adoption

- District of Columbia (2012 version)
- Maryland (2012 version; allows local jurisdictions to adopt)
- North Carolina (2015 version; adopted Rainwater Collection and Distribution Systems section)
- Oregon (2009 version; adopted energy related provisions)
- Rhode Island (2015 version; adopted for all public agency major facility projects)



IgCC Local Adoption

- Phoenix, AZ (includes NGBS)
- Scottsdale, AZ
- District of Columbia
- Fort Collins, CO (includes NGBS)
- Boynton Beach, FL (as voluntary green code)
- Keene, NH (allowed for Sustainable Energy Efficient Development zone along w/ NGBS Green certification)
- Dallas, TX (includes NGBS)
- Richland, WA (voluntary for commercial buildings)





Local Code Enforcement Issues

- IgCC adoption has raised concerns for building industry and code officials
- Some code officials recognize that many IgCC green practices are unfamiliar and do not directly impact health, safety, and welfare
- Many building departments are resource-challenged, making it difficult to increase staffing and/or training
- Compliance review and approval can be more challenging
- One idea gaining traction is to allow independent, third-party certification to demonstrate compliance
- Third-party certification can be a cost-effective, desirable option for builders and developers

Builders and developers

- Benefit because third-party verification can be affordable alternative to IgCC compliance
- Gain marketing and potential valuation advantages of NGBS Green certification
- Customer service and technical assistance of program can help eliminate lingering barriers to high performance residential buildings



Third-Party Certification Benefits



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Third-Party Certification Benefits

Local code officials

- Benefit with lower administrative costs for implementing a new green code
- No need to develop entirely new enforcement procedures and compliance documents
- Updates occur regularly

Local jurisdictions

- Third-party verification necessary for NGBS Green certification is far more stringent than what most local jurisdictions could require
- Offers more cost-effective method for enforcement than the jurisdiction developing their own verification protocol
- Provides incentive that buildings will seek higher performance levels
- Buildings have a greater chance of meeting their sustainability objectives

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INTERNATIONAL CODES

IgCC[®]

A Member of the International Code Family

POWERED BY

ANSI/ASHRAE/ICC/USGBC/IES 189.1-2017
Standard for the Design of High-Performance
Green Buildings Except Low-Rise Residential Buildings



INTERNATIONAL
GREEN CONSTRUCTION CODE[®]



The American
Institute
of Architects



IgCC Advocacy

- Support adoption of IgCC locally with NGBS as alternative compliance path for multifamily residential
- Advocate for independent, third-party certification to serve as proof of compliance
- Why?
 - Market approach is more cost-effective for builders
 - Project get added marketing benefit of green certification
 - Green certification may help building achieve higher valuation
 - Costly for local jurisdictions to train code officials to verify building practices that are beyond health, safety, and welfare items
 - Costly and difficult for jurisdictions to design credible verification protocols and update them with new versions
 - Support of independent verifiers helps ensure green building experts are consulted early in the construction process

Advocacy Action Items

- Contact Home Innovation staff as soon as you learn of any new legislative/regulatory proposals
- Home Innovation can provide:
 - Letter of support
 - Model testimony
 - Certification statistics to support the case
 - List of similar jurisdiction decisions
 - Custom analysis, if necessary
 - Home Innovation staff intervention
 - Educational materials, if useful
- Local advocacy team should consist of builders, verifiers, and architects





Contact:

www.homeinnovation.com/NGBSGreenContact