



NGBS Green certification is a comprehensive and rigorous green building certification based on **ICC/ASHRAE – 700 National Green Building Standard (NGBS)**. The program recognizes residential buildings designed and constructed to use less energy, resources, and water; and have a reduced environmental impact. Residents enjoy lower utility bills, greater comfort, reduced maintenance, and an improved indoor environment.

The NGBS was specifically designed for homes and multifamily buildings, including affordable housing. It is cost-effective to implement, making it ideally suited for low-income housing programs.

### **National Green Building Standard Overview**

The credibility of the NGBS as a green building rating system is unassailable. It is an ANSI American National Standard, an ASHRAE Standard, and an ICC Building Code and Standard. No other green building rating system or certification program can match its credibility as a true consensus-based standard, developed by a balance of stakeholders, that has undergone the scrutiny of extensive public review and comment.

As one of the I-Codes, the NGBS is written in code language to make it easy for industry professionals and contractors to understand. This has eliminated one barrier to residential green building design and construction, and has helped make NGBS Green Certified buildings affordable.

### **Home Innovation Research Labs**

Home Innovation serves as Adopting Entity and provides national certification services to the NGBS, as well as accreditation for NGBS Green Verifiers. Home Innovation is a 54-year old, internationally-recognized, accredited product testing and certification laboratory. Our work is focused on the residential construction industry and our mission is to improve the affordability, performance, and durability of housing by helping overcome barriers to innovation. Our core competency is as an independent, third-party product testing and certification lab, making us uniquely suited to administer a green certification program for residential buildings. Our staff possess an unparalleled depth of knowledge and experience in all facets of building science and construction. That is invaluable in administering the NGBS Green certification program, because it means behind every building seeking NGBS compliance stands a team of experts on a mission to help them succeed. Participation in NGBS Green brings our building science expertise to each project team at no additional cost.

### **NGBS Green Certification is Rigorous**

As an I-Code, each NGBS version has a set ICC baseline. To earn certification, the building must contain all NGBS mandatory practices. There are no exceptions. The building must also contain enough practices from each of the six categories of green building practices to meet the required threshold points.

The six categories of green practices are:

### 2012 NGBS Threshold Point Ratings for Green Buildings

Green Building Categories		Rating Level Points			
		BRONZE	SILVER	GOLD	EMERALD
<b>Chapter 5</b>	Lot Design, Preparation, and Development	50	64	93	121
<b>Chapter 6</b>	Resource Efficiency	43	59	89	119
<b>Chapter 7</b>	Energy Efficiency	30	60	80	100
<b>Chapter 8</b>	Water Efficiency	25	39	67	92
<b>Chapter 9</b>	Indoor Environmental Quality	25	42	69	97
<b>Chapter 10</b>	Operation, Maintenance, and Building Owner Education	8	10	11	12
	Additional Points from any category	50	75	100	100
<b>Total Points:</b>		<b>231</b>	<b>349</b>	<b>509</b>	<b>641</b>

Under the NGBS, buildings can attain one of four certification levels: Bronze; Silver; Gold; or Emerald. The NGBS is designed so that no one category of green practices is weighted as more important than another. Peerless among other green rating systems, the NGBS requires that projects achieve a minimum point threshold in every category of green building practice to be certified. An NGBS Green Certified building can't merely obtain all or most of its points in a few categories. This requirement makes the NGBS the most rigorous green building rating systems available.

From an energy-efficiency perspective, the Bronze level of NGBS Green certification is designed to be roughly equivalent to ENERGY STAR certification. The U.S. Department of Energy (DOE) worked with Home Innovation during the NGBS development to peg each point in the Energy Efficiency Chapter 7 to be roughly equivalent to a 0.05% reduction in energy use from the baseline reference building.

#### NGBS Green is Flexible

While the NGBS sets a minimum threshold for green practices for each certification level, it also offers builders flexibility in the green practices that they can choose to earn points toward certification. The NGBS contains an expansive array of green building practices aimed at all phases of the development process – design construction, verification, and operation. There are over 1,100 points to choose from within the NGBS. This provides the flexibility builders and developers need to ensure their green projects reflect their geographic location, climatic region, cost constraints, and the type of project they are constructing.

#### Two Mandatory Inspections

To earn NGBS Green certification, buildings are subject to two independent, third-party verifications. There is no self-certification in our program. Builders must hire an independent, accredited verifier responsible for visual inspection of every green building practice in the home or unit. The verifier must perform a rough inspection before the drywall is installed to observe the wall cavities, and a final inspection once the project is complete. The required verification imbues an elevated level of rigor and quality assurance to the projects that are certified.

#### NGBS Green Accredited Verifiers

Home Innovation qualifies, trains, and accredits building professionals to provide independent verification services. Verifiers must possess experience in residential construction and green building. Many verifiers are HERS raters. Potential verifiers are trained on how to verify every NGBS practice. After completing the training, verifiers must pass a three-part exam and carry sufficient insurance to

earn accreditation. Verifiers renew their accreditation annually and retrain and retest with every NGBS version. We have strict rules to ensure verifiers remain independent and free of conflict-of-interest on the projects for which they provide verification services.

Verifiers serve as our field agents to confirm buildings are NGBS compliant. Home Innovation reviews every rough and final inspection to ensure national consistency and accuracy in the verification reports. Further, we regularly audit our verifiers and their verifications as part of our internal quality assurance program.

Why is third-party verification important? Simply because it is the only reliable way to ensure that the project will be a high-performing, green project post-construction.

### **NGBS Green is Affordable**

There are three buckets of cost for any green certification program: construction; verification; and compliance. Home Innovation has worked to keep compliance costs affordable. Construction costs will vary based on the local building code. Obviously, buildings in jurisdictions that have adopted more recent building codes, such as the 2015 IECC, will have lower NGBS compliance costs than those in jurisdictions using the 2006 IECC. A [2014 study](#) found that for 2009 IECC code-compliant building, the NGBS cost of compliance at the Bronze level ranges from \$2,300 - \$3,000, with the cost dropping considerably if the state has adopted the 2012 IECC.

Verification fees are set by individual verifiers and vary by the services offered (inspection, testing, modeling, consulting), but in general are affordable and only incrementally higher than if a building was also seeking ENERGY STAR certification.

Last, [NGBS Green certification fees](#) are affordable and typically are not be a barrier to participation in the program.

### **Legislative and Regulatory Recognition**

A [complete list of where NGBS Green is recognized](#) is available on Home Innovation's website.

### **QAP Recognition of the NGBS**

NGBS Green is currently recognized in 30 Qualified Allocation Plans (QAPs) as State Housing Finance Agencies have added NGBS green certification to help promote green affordable housing.

### **Program Statistics**

To date, Home Innovation has certified 3,289 multifamily buildings, representing 117,105 dwelling units, and 13,482 single-family homes. Currently, there are 1,967 multifamily buildings in progress, representing an additional 94,008 dwelling units, and 1,740 single-family homes. We have certified 30 homes in South Dakota to date, and have an additional 29 in progress. A real-time tracker of homes of homes in our certification pipeline, as well as a downloadable quarterly list of all certified projects, is [available on our website](#).

If you have any further questions about the NGBS Green certification program, contact Michelle Foster, 301.430.6205; [mfoster@homeinnovation.com](mailto:mfoster@homeinnovation.com).