



October 20, 2016

Laura Nicholson
South Carolina State Housing Finance and Development Authority
300-C Outlet Pointe Blvd
Columbia, South Carolina, 29210

Sent via fax (803) 551-4925

Dear Ms. Nicholson:

On behalf of Home Innovation Research Labs, I respectfully request that NGBS Green certification based on the **ICC/ASHRAE-700 National Green Building Standard (NGBS)** be recognized as a named alternative to Energy Star Certification Version 3.0 in the 2017 and 2018 South Carolina Qualified Allocation Plan (SC QAP). Specifically, I request that projects that seek Home Innovation's NGBS Green certification can earn 15 points in the category of Optional Development Design Criteria Points as an ENERGY STAR Certification alternative.

There are many compelling reasons why the South Carolina State Housing Finance and Development Authority (Authority) should recognize the NGBS Green as on-par with ENERGY STAR Certification. First, Home Innovation's NGBS Green certification is more comprehensive and rigorous than ENERGY STAR criteria and certification. ENERGY STAR is focused on energy efficiency while NGBS green aims to promote residential buildings which are energy efficient, but also reduce water use, use resources more efficiently, incorporate practices to ensure a healthy indoor environment, and require that building owners and operators are trained in how to proper building maintenance. Second, the NGBS was specifically designed for residential projects including affordable housing, and is cost-effective to implement, making it ideally suited for low-income housing programs to meet their goal of increasing the construction or renovation of green high-performance housing in a cost-conscious manner. Third, the NGBS's credibility as a green building rating system is unassailable given it carries ANSI approval as an American National Standard, as well as approval as an ASHRAE Standard and an ICC Standard. No other green building rating system or certification program in the country can match the NGBS's credibility in that regard, and thus the Authority can be assured that the NGBS is a true consensus-based standard, developed by a balance of stakeholders, rigorous in its compliance requirements, that has undergone the scrutiny of extensive public review and comment. Last, the NGBS is recognized in 23 State Qualified Allocation Plans for low income housing tax credits and innumerable federal, state, and local affordable housing programs, making NGBS Green particularly appropriate for affordable housing.

National Green Building Standard Overview

The NGBS is the first and only residential green building rating system to undergo the full consensus process and receive approval from the American National Standards Institute (ANSI). The original 2008 version was approved by ANSI in 2009; the 2012 version was approved by ANSI in early 2013; and the 2015 edition was approved in March 2016. The 2008 and 2012 NGBS versions were jointly developed by the National Association of Homebuilders (NAHB) and the International Code Council (ICC). For the third

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edition of the standard, the 2015 version¹, ASHRAE joined as a third co-sponsor. This partnership further cements the NGBS as the preeminent green standard for residential construction.

The NGBS carries three important designations. It is ANSI-approved as an American National Standard. It is also part of the family of ICC International-codes (I-Codes) that form a complete set of comprehensive and coordinated building codes. Last, it is approved as an ASHRAE Standard.

As one of the I-Codes, the NGBS is written in code language to make it easy for industry professionals and contractors to understand. I believe this is one reason the NGBS has been successful even in areas where it is not part of the building code and is used as an above-code program. For a residential building to be in compliance, the building must contain all mandatory practices in the NGBS. The building must also contain enough practices from each of the six categories of green building practices to meet the required threshold points.² The six categories of green practices are:

- Lot & Site Development
- Resource Efficiency
- Energy Efficiency
- Water Efficiency
- Indoor Environmental Quality
- Homeowner Education

Under the NGBS, homes and multifamily buildings can attain one of four potential certification levels: Bronze, Silver, Gold, or Emerald. The NGBS was specifically 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 all projects must achieve a minimum point threshold in every category of green building practice to be certified. A project certified to the NGBS can't merely obtain all or most of its points in a few categories, as other rating systems allow. This requirement makes the NGBS the most rigorous green building rating systems available.

The NGBS's mandatory provisions must be met for certification at any level. There are no exemptions. However, unlike other green building rating systems, the NGBS contains an expansive array of green building practices aimed at all phases of the development process: design, construction, verification, and operation. 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.

NGBS Green Certification Program

Home Innovation serves as Adopting Entity and provides national certification services to the NGBS. Home Innovation is a 53-year old, internationally-recognized, accredited product testing and certification laboratory located in Upper Marlboro, Maryland. Our work is solely 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

¹ More information at www.homeinnovation.com/ngbs

² See page 12 in ICC 700-2012 NGBS.

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independent, third-party product testing and certification lab, making us uniquely suited to administer a green certification program for residential buildings. Our staff is made up of mechanical, structural, and electrical engineers; planners; economists; architects; former builders, remodelers, and contractors; lab and technicians. Combined, they possess an unparalleled depth of knowledge and experience in all facets of market analysis and building science research and testing. Why is that important? Because 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.

Two Mandatory Inspections

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

Home Innovation qualifies, trains, and accredits building professionals to provide independent verification services for builders. Verifiers must first demonstrate that they possess experience in residential construction and green building before they are eligible to take the verifier training. Many verifiers are HERS raters and/or LEED raters. Potential verifiers must complete thorough training on exactly how to verify every practice in the *National Green Building Standard*. After completing the training, verifiers must pass a three-part written exam with an 80% pass rate and demonstrate that they carry sufficient liability insurance before receiving Home Innovation accreditation. Verifiers must have their accreditation renewed yearly and must retrain and retest with every revised edition of the NGBS.

Currently, we have 23 NGBS Green Accredited Verifiers that provide verification services in South Carolina. Many of these Verifiers also provide ENERGY STAR certification and thus they are familiar with both programs and can help advise builders and developers as to the most cost-effective way to design and construct high-performance residential buildings.

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 the verifications that they perform 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. Our verifiers report that the most common inspection issue they encounter in the field is improperly installed insulation. However, because our Verifiers inspect every unit they are in the building before the drywall is installed and they can help the builder or contractor take the necessary corrective action before it is too late to correct.

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Legislative and Regulatory Parity

Since 2009 when ANSI first approved the NGBS, without exception the NGBS has been considered as on par or more stringent than ENERGY STAR, LEED, or Green Communities as a green building rating system for residential projects.

- On the federal level, HUD recognizes the NGBS by name specifically and as on par with ENERGY STAR.³ For example, in their 2013 funding notice for jurisdictions affected by Hurricane Sandy, the agency cited the NGBS as an acceptable green standard for reconstruction efforts. HUD's April 2016 Mortgage Insurance Premium reduction program recognizes NGBS Green as one of the accepted green certification programs.
- The U.S. Department of Army recognizes NGBS as a LEED equivalent for military housing nationwide.
- Twenty-three states recognize, mandate, or incentivize NGBS certification through their Qualified Allocation Plan for the federal Low Income Housing Tax Credit Program.⁴
- A complete list of where NGBS Green is recognized is available.

To date, not a single jurisdiction has refused to recognize the NGBS as an alternative compliance path for any regulatory or incentive program where we have asked them to make an equivalency decision. For a more complete listing of where NGBS has been recognized, visit our summary of incentives⁵.

QAP Recognition of the NGBS

NGBS Green is currently recognized in 23 state Qualified Allocation Plans (QAPs), and an increasing number of State Housing Finance Agencies have been adding NGBS green certification to their QAPs to help promote green affordable housing. In these plans, NGBS is recognized as on-par with comparable programs, such as LEED, ENERGY STAR, or Enterprise Green Communities. Builders who utilize NGBS Green for low-income housing tax credits typically receive the same number of points for NGBS as they would for an alternative program. The straight-forward and low-cost nature of the NGBS Green certification program make it ideally suited for affordable housing development, and this is evident by the number of Habitat for Humanity organizations and other LIHTC providers who select NGBS as their program of choice.

Program Statistics to Date

Home Innovation has certified 2,193 multifamily buildings, representing 76,797 dwelling units, and 11,212 single-family homes. Currently, there are 1,358 multifamily buildings in progress, representing an additional 71,340 dwelling units, and 1,520 single-family homes.

³ U.S. Department of Housing and Urban Development memo from Kathryn Saylor, Assistant Inspector General for Evaluation to Clifford Taffet, General Deputy Assistant Secretary, dated November 20, 2015 citing National Green Building Standard specifically as one of the HUD adopted energy building rating systems.

⁴ See www.homeinnovation.com/NGBSIncentives.

⁵ www.homeinnovation.com/ngbsgreenincentives

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While we don't specifically track the number of projects that are affordable housing, we have certified many LIHTC projects as well as other affordable and workforce housing developments. I believe that this indicates we have been successful in designing a green certification program that is affordable and flexible, while remaining rigorous.

Summary

The goal of the NGBS and the Home Innovation NGBS Green Certification Program is to recognize projects that reach exceptional levels of sustainable design. We have worked hard to develop a program that removes as many barriers as possible to high-performance green buildings without eliminating any of the rigor or verification necessary to ensure compliance. To this end, we have kept our certification fees low, minimize the time needed for interpretations and project review, and significantly reduced the costs required to incorporate green practices. I respectfully request that the NGBS Green be recognized alongside ENERGY STAR certification as an acceptable green building certification equivalent in South Carolina's Qualified Allocation Plan.

Providing builders with a choice to earn 15 points by seeking NGBS Green certification is a win-win for the South Carolina State Housing Finance and Development Authority; tax credit builders; and future residents of approved projects. The Authority allows builders to select a comprehensive, third-party verified green program which is equally affordable to ENERGY STAR. Builders have a choice of which program works best for their projects and project team. Residents enjoy a home that is not only energy efficient, but also healthier, reduces water use, and is maintained to extend the high-performance benefits years into the future.

We look forward to discussing it further with you or staff if you require a more detailed overview of the NGBS Green certification program. We will also gladly send you any supplemental information that you might require for further support. Please don't hesitate to contact Michelle Foster (mfoster@homeinnovation.com, 301.430.6205), our Vice President, Innovation Services, directly if she can be of further assistance.

I look forward to working with the Authority to promote green certified housing built to the *National Green Building Standard*.

Sincerely,



Michael Luzler
President and CEO