

Federal Trade Commission  
Office of the Secretary  
Room H-135 (Annex B)  
600 Pennsylvania Avenue, NW  
Washington, DC 20580

**Re: Green Building and Textiles Workshop – Comment Project No. P084203**

To Whom It May Concern:

From recycled products to organic clothing and hybrid cars, demand for “green” products and services is growing rapidly. “Going green” is now becoming mainstream, inspiring an increasing number of consumers to seek ways to reduce the environmental footprints of their homes and workplaces. The U.S. Green Building Council (“USGBC”) greets this trend as important progress towards its goal of healthier, more environmentally responsible, and livable buildings and communities. We are at once mindful that as the market for green building products and services expands, so too does the potential for consumer confusion and deception.

The Federal Trade Commission’s (“FTC”) *Guides for the Use of Environmental Marketing Claims* (“Guides”) play an important role in helping marketers to navigate the ever-expanding environmental market and to ensure that their claims are consistent with consumer understanding and expectations. USGBC applauds the FTC’s efforts to update the *Guides* to enable their application to a host of new “green” products and claims. We appreciate the opportunity to participate in this process and offer the following comments regarding potential revisions related to green building.

**Background**

**About USGBC**

Founded in 1993, USGBC is a 501(c)(3) non-profit organization composed of leaders from across the building industry working to advance buildings that are environmentally responsible, profitable and healthy places to live and work. Driving its mission to transform the built environment is the Council’s LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™, a nationally-recognized third-party certification program for the design, construction and operation of high performance green buildings. Today, USGBC has more than 16,500 member companies and organizations, including real estate developers, architecture, design and engineering firms, contractors, product manufacturers, government agencies, educational institutions, and nonprofit organizations. Additionally, individuals throughout the United States participate in USGBC’s work through USGBC’s more than 70 local chapters, affiliates and organizing groups.

**About LEED**

LEED is a voluntary third-party certification system for green building, and was developed to promote leadership in the building industry by providing an objective, verifiable definition of “green.” LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas, with an additional category to recognize innovation: sustainable site development, water savings, energy efficiency, materials and resources, and indoor environmental quality. Each category includes certain minimum requirements (“prerequisites”) that all projects must meet, followed by additional optional credits that are earned by incorporating green design and construction techniques. Four progressive levels of LEED certification – Certified, Silver, Gold and Platinum – are awarded based on the number of points

achieved.

USGBC provides independent, third-party verification to ensure a building meets these high performance standards. As part of this process, USGBC requires technically rigorous documentation that includes information such as project drawings and renderings, product manufacturer specifications, energy calculations, and actual utility bills. This process is facilitated through a comprehensive online system that guides project teams through the certification process. All certification submittals are audited by third-party reviewers.

Since its initial public launch in 2001, LEED has been expanded to address a broad range of building types, and has completed a series of improvement cycles to respond to technical innovations and market needs. The next major update of LEED, known as LEED 2009, recently concluded its first public comment period and is now under review.

## Comments

### Part I: Green Building Claims

**(Part I)(1) How effective have the Guides' provisions regarding general environmental claims been in preventing consumer deception and providing business guidance with respect to environmental claims for building products and buildings? Please provide any evidence that supports your answer.**

**(Part I)(2) Has there been a change in consumer perception of environmental claims for building products and buildings since the Guides were revised?**

Yes. Since the *Guides'* last revision, the market for green building products has grown dramatically, and with it, consumer understanding about green buildings and homes.

**(Part I)(2)(a) If so, please describe this change and provide any evidence that supports your answer.** Green building, once the province of a handful of innovators and market leaders, is now entering the mainstream of building practice. This shift is rather recent, having occurred only in the last few years. In a recent survey evaluating consumer attitudes toward green homes, 31% of homeowners indicated that they are moderately knowledgeable about green homebuilding, while another 45% reported that they are very or extremely knowledgeable about the subject.<sup>1</sup> This data represents a stark shift from early reports.

**(Part I)(2)(b) Should the Guides be revised to address any such change? If so, how?**

Increasing awareness of green building practices provides some assurance that consumers will be able to identify and dismiss unsupported and overly optimistic product claims. Importantly, however, consumer knowledge about green building remains uneven and incomplete, given that green home building is only now beginning to enter the mainstream residential market. Moreover, the large number of green offerings in the marketplace and the inherently technical nature of many claims present significant challenges for even the savviest of consumers.

The FTC can ensure that marketers do not mislead consumers of all levels of sophistication about green building by highlighting the increasing prevalence of green building products and services in the marketplace, and by providing examples of misleading marketing claims in this area. Specifically, the

---

<sup>1</sup> McGraw Hill Construction, SmartMarket Report (2007), *The Green Homeowner: Attitudes & Preferences for Remodeling and Buying Green Homes*, p. 12.

*Guides* should be modified to include information about appropriate (and inappropriate) means of substantiating and qualifying green building claims.

**(Part I)(3) Are there environmental claims for building products and buildings in the marketplace that are misleading? If so, please describe these claims and provide any evidence that supports your answer.**

Please see III. of our response to Part II(2)(b), discussing the misuse of third-party certification seals and logos, and program comparisons.

## **Part II: Third-Party Certifications and Seals**

**(Part II)(1) How effective have the Guides' provisions regarding third-party certifications and seals been in preventing consumer deception and providing business guidance with respect to environmental claims for textiles, building products, or buildings? Please provide any evidence that supports your answer.**

The *Guides* currently provide broad business guidance regarding the substantiation of “green” product claims. This guidance has been analogously applied to marketing related to the design, delivery, and operation of buildings claiming attributes of sustainable design. While USGBC believes the *Guides* have been widely understood by marketers to apply to claims related to green building products and services, USGBC nevertheless supports the addition of guidance directly addressing these areas to safeguard against misleading claims in this burgeoning field.

**(Part II)(2) Has there been a change in consumer perception claims using third-party certifications and seals for textiles, building products, or buildings since the Guides were revised?**

Yes. Since the *Guides* were last revised in 1998, there has been a dramatic increase in consumer demand for “green” products, and parallel growth in the number of products and services claiming to have environmentally responsible attributes. A number of third-party certification programs have been developed to assist consumers in distinguishing between available products, and consumers are becoming increasingly familiar with these systems.

**(Part II)(2)(a) If so, please describe this change and provide any evidence that supports your answer.**

While in 1998 green building certification programs were merely in their infancy stages, today, numerous programs are being developed and administered by a diverse set of public and private entities. The emergence of green building rating systems and third-party certification programs during the last decade has substantially changed the way consumers communicate and understand attributes of sustainability in their home and work environments. Rating systems have provided a consistent and quantifiable definition of “green building” upon which consumers can reliably base decisions. Not surprisingly, a growing number of states and localities incentivize or require compliance with these programs as a part of their broader environmental policies. Several states are also crafting and adopting code-based green building approaches that are informed by and apply lessons learned from leadership-oriented rating systems.

USGBC has witnessed the evolution of consumer understanding about third-party certification programs through its development and administration of the Leadership in Energy and Environmental Design (“LEED”) green building rating system. Founded as nonprofit organization in 1993, USGBC first

released LEED (Version 1.0) as a pilot program in August 1998. The first comprehensive revision of this system occurred in March of 2000 with the release of LEED 2.0. LEED 2.1 and LEED 2.2 followed in 2003 and 2007, respectively. Each successive revision has incorporated changes in green building technology, and honed program requirements and processes to maximize opportunities in sustainable design.

As the LEED program has matured, it has been expanded to specifically address numerous building types. To reflect this expansion, the initial rating system has been distinguished as LEED for New Construction & Major Renovation. In addition, USGBC currently offers rating systems for the Operations and Maintenance of Existing Buildings, for the design and construction of Core and Shell structures, Commercial Interiors, Schools, and most recently, Homes. Additionally, USGBC is currently pilot-testing and nearing completion of rating systems for neighborhood developments, healthcare facilities, retail spaces, labs, and campuses.

These LEED rating systems provide a rigorous, accessible, and verifiable means of certifying and identifying green buildings. USGBC is currently developing the next version of our green building rating system--LEED 2009—to reflect and respond to technical innovations and market needs.

As a result of the availability and credibility of third-party certification systems such as LEED, marketers are increasingly turning to third-party seals and logos as a means of communicating to consumers that their products and services do not cause harm to the environment. These rating systems and third-party certification processes, when developed in a truly balanced, open and transparent manner, properly administered by certifying organizations, and appropriately represented by marketers, provide consumers with a common language for and a trusted means of evaluating the environmental attributes of their purchases. Moreover, rating systems and third-party certification processes take the guesswork out of consumer decision making, providing an independent and expert assessment of technical product claims that may be difficult for consumers to interpret or verify on their own.

**(Part II)(2)(b) Should the Guides be revised to address any such change? If so, how?**

The growing use of green building rating systems and third-party certification programs presents an opportunity to establish appropriate and reliable consumer expectations regarding the performance and characteristics of green buildings. In this sense, these programs are complementary to the central purpose of the *Guides*. USGBC recommends that this correlation be strengthened through the incorporation of guidance pertaining to: 1) the promotion of free access to substantive information about rating systems and certification processes; 2) the disclosure of participants and processes involved in the development of rating systems and certification processes; and 3) the proper use of logos, brands, seals, and other representations demonstrating compliance with rating systems and certification processes.

**I. USGBC recommends that the FTC, in revising the *Guides*, incorporate provisions encouraging the accessibility of information pertaining to rating systems and certification programs.**

With increasing frequency, product advertisements and marketing materials reference third-party certification programs to demonstrate compliance with green building criteria. In order to provide consumers with the ability to apply their own level of scrutiny to such claims, information about green building criteria and the third-party certification processes that underlay these claims should be made available to the public.

USGBC recommends that the FTC revise the *Guides* to encourage rating system developers and certifiers to publish the substance of their rating systems, and their certification processes, in an open manner. The

*Guides* should specify that this information should be made available on the Internet and also in print, upon request. Further, recognizing the technical nature of many aspects of green building, the *Guides* should instruct that information about rating systems and certification processes should be communicated in a manner that would allow the average consumer to understand the essential functions and characteristics of the buildings deemed to be compliant with the offered criteria. Additionally, the *Guides* should encourage the use of case studies to provide consumers with examples of how products and buildings that comply with green building rating systems actually perform.

**II. USGBC recommends that the FTC, in revising the Guides, incorporate provisions requiring disclosure of the open, transparent, and balanced creation of all rating systems and certification programs.**

To further enable consumers to examine and evaluate the validity of a particular rating system and/or certification program, developers of such processes should be encouraged to disclose in an open manner all pertinent information regarding the creation, revision, and maintenance of their programs.

The American National Standards Institute (“ANSI”) is an internationally recognized organization that provides a well-established process for ensuring the credibility of standards developers. The essential requirements for ANSI standards development articulate various procedures whereby developers must demonstrate *openness, transparency, and balance*. At this time, several rating system and certification program developers have voluntarily subjected their program development procedures to ANSI for review and accreditation.

At this juncture, it seems inappropriate to specifically require participation in the ANSI process, given that a requirement of this kind would exclude well-established programs of tremendous value, such as Energy Star. Nevertheless, the *FTC Guides* should enforce disclosure in accordance with the following general requirements for the benefit of consumers:

- ***Openness:*** Rating and third-party certification programs should be required to disclose information about the degree to which public participation is invited with respect to any voting, public comment, and objection and appeal procedures.
- ***Transparency:*** Programs should be required to disclose information about their processes for establishing rating and third-party certification criteria and procedures. This includes disclosure of information about technical development programs, internal quality controls, and voting processes, as well as the results of any external reviews examining compliance with these procedures.
- ***Balance:*** Programs should be required to disclose the degree to which their processes reflect diverse perspectives and the lack of control by a party or parties subject to conflict of interest. Balance requires the identification of participants involved in the development of a rating system or certification program, the affiliations of such participants, and disclosure regarding the extent of their participation.

Proper disclosure of the above elements will allow consumers to better evaluate the credibility and rigor of the seals and certifications on the products being offered to them.

**III. USGBC recommends that the FTC, in revising the *Guides*, incorporate guidance and examples articulating the proper use of logos, brands, seals, and other representations demonstrating compliance with, and differentiation between, existing rating systems and certification processes.**

*Proper use of logos and seals*

The Guides currently instruct that when using seals-of-approval, marketers should provide qualifying language that clarifies which attributes of a product they claim to be environmentally superior (16 C.F.R. § 260.7 Environmental Marketing Claims, Example 5). This guidance aids consumers in interpreting the meaning of logos and symbols, and protects certifying organizations from having their logos used in ways they do not intend. USGBC recommends that the FTC expand the *Guides* to provide additional examples of inappropriate and deceptive uses of logos and seals on packaging in light of the rapid proliferation of new certification programs and the great potential for consumer confusion and deception posed by their misuse.

Specifically, USGBC recommends the addition of language clarifying that marketers should take caution when using logos and seals awarded for a specific purpose to be sure that they do not indicate approval or endorsement of environmental attributes beyond the scope of the certifying program. This is particularly important in cases in which logos or seals address some, but not all, aspects of a product or service.

A. Improper Claims of LEED Product Certification

Although USGBC provides third-party certification of buildings through LEED, it does not certify individual products or building components as “green” or “environmentally friendly.” Despite this fact, some marketers have erroneously interpreted the inclusion of their products in LEED-certified buildings as evidence that their products are, by extension, certified by USGBC or LEED, or can be used to achieve LEED credits. Claims of this kind through the use of USGBC or LEED logos on product packaging mislead consumers and pose similar challenges to third-party certifiers, who subsequently become unknowingly linked to products they have not in fact reviewed or endorsed.

B. Improper Claims of LEED Building Certification

Similarly misleading are marketing claims that a building is “LEED” or “LEED-certified” prior to the receipt of certification from USGBC. Importantly, certification under LEED for Homes is awarded only after a completed home or major renovation project has undergone third-party review through USGBC and its contracted providers, who verify that credits sought have actually been incorporated into the project. While a registered project may indicate that it is seeking LEED certification (for example, by using the LEED for Homes logo in conjunction with the phrases “registered under LEED for Homes,” “designed/built to qualify for LEED certification,” or “LEED for Homes Project Under Construction”), claims of certified status by builders or project owners prior to the completion of LEED’s third-party certification process are misleading and inappropriate.

C. Improper Claims of Professional Accreditation

The Green Building Certification Institute (GBCI), established with the support of USGBC, offers building and design professionals an opportunity to demonstrate their knowledge and understanding of green building and LEED through the LEED Accredited Professional (LEED AP) Program. LEED Professional Accreditation is a voluntary designation awarded to individuals who have passed the LEED Professional Accreditation exam, and indicates that the professional has the knowledge and skills to

facilitate the LEED certification process. To date, more than 56,000 individuals have passed the exam and earned the LEED Accredited Professional credential.

Problematically, some marketers have made claims that confuse the *accreditation* process of professionals and the *certification* process for buildings. For example, a builder may represent that it is a “LEED builder” or “LEED expert” as a result of having completed or participated in a LEED project. Representations of this kind mislead consumers, who may believe that the builder has special qualifications or expertise that have not in fact been evaluated by USGBC or GBCI.

#### D. Misleading Comparisons of Rating Systems and Certification Programs

In addition, USGBC encourages the FTC to incorporate language and guidance regarding the improper comparison of logos, seals and symbols. USGBC celebrates the development and existence of multiple rating systems and certification programs in the marketplace as an important means of enhancing consumer choice and of ensuring the continued improvement of all such programs. At the same time, USGBC recognizes the potential for consumer confusion posed by claims that seek to distinguish between different rating systems and certification programs, and welcomes the addition of FTC guidance clarifying appropriate means of comparison.

Specifically, USGBC urges the inclusion of guidance clarifying that blanket statements about the equivalency or superiority of specific certification levels across independent rating systems are inappropriate and misleading. Importantly, while many programs add value to the marketplace, they may do so in different ways. Thus, programs embracing similar nomenclature to identify levels of environmental performance may embrace distinct definitions of these terms. For example, the second certification level of one system is titled “Silver”; another competing system also maintains a “Silver” level. While these levels share similar names, they do not reflect the same level of sustainable attributes. As a result, representations to consumers as to their equivalence are false. Accordingly, any such conclusions or representations should be limited to the context of credible research and/or case studies, and communicated with the use of unambiguous metrics. In addition, the logos, seals, and symbols used to convey certification should be sufficiently distinguished so as not to mislead consumers regarding the potential equivalence or direct relation of one rating system to another.

**(Part II)(3) What criteria are third-party certifiers using to substantiate claims made with third-party certification or seals for textiles, building products, or buildings? Are those criteria appropriate? Please provide any evidence that supports your answers.**

Each LEED green building rating system provides a broad spectrum of sustainable design characteristics organized in a series of categories. Each characteristic is assigned a point value. Design teams seeking certification may then select particular characteristics for incorporation into their project. If a design team meets all prerequisites and acquires enough points, a certification may be granted, pending third-party review and confirmation. For the purposes of illustrating the certification process and pertinent criteria, please see the following brief overview of the LEED for Homes program.

LEED for Homes is a national, voluntary certification system for residential applications. The rating system is available for the following project types: single family, low-rise multifamily, production homes, affordable housing, manufactured and modular homes, and major rehabilitation of existing homes.

Under the LEED for Homes rating system there are four certification levels: Certified, Silver, Gold and Platinum. Points toward certification are awarded in the following eight categories:

- **Innovation and Design (“ID”)**: The Innovation and Design Process category creates an opportunity for design teams to earn credit for implementing design strategies not specifically addressed within the rating system. In order for points to be earned in this category, design teams must demonstrate the sustainable value added by such designs as well as the method of implementation for such design.
- **Location and Linkages (“LL”)**: Location and Linkages credits reward builders for selecting home sites that have more sustainable land use patterns and offer environmental advantages over conventional developments. Credits may be awarded, for example, for the selection of sites with access to public transportation or pedestrian services.

**Sustainable Sites (“SS”)**: The Sustainable Sites credit category rewards projects for incorporating designs that minimize adverse environmental impact. Examples of concepts recognized within this category include the reduction of erosion and runoff, as well as the practice of landscaping with low-maintenance, native plant species.

**Water Efficiency (“WE”)**: The Water Efficiency category focuses on maximizing the use of three kinds of conservative practices: reuse, reduced irrigation, and reduced indoor water use. Designers can achieve points within this category for the use of high-efficiency fixtures and fittings, as well as rainwater harvesting.

**Energy and Atmosphere (“EA”)**: The Energy and Atmosphere credit category is designed to reduce the emissions of CO<sub>2</sub> as well as reduce the consumption of grid-based electricity. Design teams are rewarded for integrating features such as optimal home insulation, high-efficiency HVAC systems, Energy Star lighting and appliances, and the use of renewable energy.

**Materials and Resources (“MR”)**: The Materials and Resources credit category rewards designers for utilizing materials that are extracted, processed and transported in an environmentally responsible manner. This category also promotes the use of construction practices that reduce or recycle waste.

**Indoor Environmental Quality (“EQ”)**: The Indoor Environmental Quality category encourages project teams to design projects in a way that reduces the presence of harmful chemical compounds and/or pollution within the home, and maximizes the level of thermal comfort for occupants. For example, points may be awarded for the control of moisture, proper ventilation, air filtering, and the efficient distribution of space heating and cooling.

**Awareness and Education (“AE”)**: The Awareness and Education category contains credits that promote the education of homebuyers and tenants as to the proper maintenance and operation of green features.

Thresholds and prerequisites have been imposed on several point categories to reflect areas of special emphasis and to ensure that projects pursue points in a broad range of categories. For an example of how points were accrued in a certified LEED for Homes project, please see the attached LEED checklist.

Owing to the extensive development process for LEED for Homes and the inclusion of broad perspectives through various public comment periods, USGBC believes LEED for Homes reflects appropriate third-party certification criteria. LEED for Homes was originally created by a standards development committee with the assistance and expertise of five specialized Technical Advisory Groups (“TAGs”).

The original design was then further developed through a series of pilot programs; the first released in September 2005, and the second released in February 2007. Each pilot release incorporated an opportunity for public comment and subsequent revisions. During the pilot program, more than 650 homes were reviewed and certified. The finalized LEED for Homes rating system was released in January 2008. Prior to its release, the final version of LEED for Homes was approved by a consensus body vote consisting of more than 1,200 independent consensus body participants. Electronic copies of each pilot version, as well as the final LEED for Homes rating system, are available to the general public on USGBC's website ([www.usgbc.org](http://www.usgbc.org)).

**(Part II)(4) Are there environmental claims for textiles, building products, or buildings using third-party certifications and seals in the marketplace that are misleading? If so, please describe these claims and provide any evidence that supports your answer.**

Please see III. of our response to Part II(2)(b), discussing the misuse of third-party certification seals and logos, and program comparisons.

### **Part III - Green Building and Textiles Claims Currently Not Addressed by the Green Guides**

**(Part III)(1) Should the Guides be revised to include guidance regarding “sustainable” or “renewable” claims for textiles and building products? If so, why, and what guidance should be provided? If not, why not?**

Since the Guides were last revised, numerous terms have appeared in the market to describe the environmental attributes of products and services. Words such as “green” and “sustainable,” while increasingly understood to refer to environmental impact, are used to describe a diverse range of products and services. USGBC recognizes the potential for consumer confusion regarding the manner in which these terms are used (for example, whether they are intended to refer to discrete attributes of a product, or instead, to a product in its entirety). USGBC thus recommends that the FTC add guidance identifying such terms and providing additional examples of how marketers can qualify and substantiate claims that use them to avoid deceiving consumers. For example, the FTC should clarify that claims that a product is “sustainable” because it contains a single, environmentally responsible attribute may mislead consumers regarding the product’s overall impact on the environment.

Importantly, as other commenters have noted, words such as “green” and “sustainable” may be used independently of product claims to communicate important information about a company or organization’s mission and vision. USGBC recommends that the FTC distinguish between statements such as these, which are used to convey broad organizational goals and should not require substantiation, and product claims, which make assertions about specific product attributes.

**(Part III)(1)(a) What evidence supports making your proposed revision(s)? Please provide this evidence.**

**(Part III)(1)(b) What evidence is available concerning consumer understanding of the terms “sustainable” or “renewable” with respect to textiles and building products? Please provide this evidence.**

**(Part III)(1)(c) What evidence constitutes a reasonable basis to support a “sustainable” or “renewable” claim with respect to textiles and building products? Please provide this evidence.**

Please see part I. of our response to Part II(2)(b), recommending the addition of guidance encouraging the accessibility of information pertaining to rating systems and certification programs.

**(Part III)(2) Should the Guides be revised to include guidance regarding life cycle claims for building products?**

Yes. The *Guides* should be revised to incorporate guidance regarding Life Cycle Assessment for building products.

**(Part III)(2)(a) If so, why, and what guidance should be provided? If not, why not? Please provide any evidence that supports your answer.**

Life Cycle Assessment (LCA), a methodology defined by ISO 14040, provides an important means by which manufacturers can meaningfully compare the environmental attributes of their products, and by which consumers can make informed product purchases based on environmental preferences. At its most basic, LCA advances an evaluation of a material's overall environmental performance through a study of various environmental impacts across a variety of categories and during various stages of a material's life. LCA categories are assigned distinct weights to reflect their potential to contribute either negatively or positively to the material's overall environmental footprint, ultimately yielding an overall score.

Although in existence for many years, LCA is only now beginning to gain broad acceptance in the mainstream building market due to heightened interest in green buildings and green building products. Indeed, USGBC is currently in the process of integrating LCA within the materials and resources credits of LEED 2009, in response to growing demand by manufacturers for a way to distinguish their products from others, and the existence of consumer confusion regarding the use of divergent claims in the marketing of similar products. LCA is also informing the design process of a growing number of buildings through the use of LCA-based design tools, such as the National Institute of Standards and Technology's BEES 4.0 tool and Athena's Environmental Impact Estimator. USGBC expects that the use of LCA will continue to expand rapidly in the coming years to keep pace with growing consumer consciousness and concern about environmental issues.

Recognizing both the rapidly changing nature of the environmental product market and the necessary delay in successive revisions of the *Guides*, USGBC recommends that the FTC add guidance about LCA to prepare marketers for the future direction of the building industry. Guidance broadly defining the meaning of this term will enable marketers to become familiar with this valuable methodology, and to gain an understanding of both the opportunities and challenges posed by LCA's growing use.

Importantly, any such guidance should clarify that while LCA can play a helpful role in enabling the meaningful comparison of similar products, it can also give rise to inconsistent results, and contribute to consumer confusion and deception, if not used in a standardized manner. For example, although two manufacturers may both use LCA to evaluate their products, they may select different categories for inclusion in the assessment, draw data about environmental impacts from distinct sources, or assign unique weights to assessment categories. Consequently, the environmental performance of two nearly identical products may be reported in markedly different ways using LCA.

The FTC can minimize the potential for confusion based on inconsistent application of LCA by encouraging all marketers that use LCA to derive input data from a common source. The National Renewable Energy Laboratory (NREL)'s Life Cycle Inventory Database Project is a comprehensive data source for use in this way. Additionally, the FTC could set forth the basic parameters that should define any life cycle assessment of a product to standardize the relevant impact categories, life cycle stages, and service life periods that are the basis of these assessments. Guidance of this kind will ensure that LCA is

performed on a level playing field, enabling the consistent and meaningful comparison of similar products.

Alternately, the FTC might adopt the concept of an Environmental Product Declaration (EPD), a concept that is now used with increasing success and frequency in Europe. EPDs are LCA-based declarations that disclose a product's environmental impacts to enable consumers to compare like products. By providing a standard vehicle for reporting information about a product's environmental performance, EPDs help to normalize product claims, and in turn, prevent the use of misleading and deceptive environmental claims.

USGBC recommends that, regardless of the approach embraced, the FTC ensure that marketers disclose the parameters they have used in the life cycle assessment of their products to avoid consumer confusion and deception.

**(Part III)(2)(b) What evidence is available concerning consumer understanding of life cycle claims with respect to building products? Please provide this evidence.**

**(Part III)(2)(c) Is there an appropriate scientific methodology to evaluate life cycle claims for building products? If so, please provide any evidence that supports your answer.**

LCA is itself a methodology. As discussed above, although the term references a common means of evaluating environmental performance, the precise contours of a given life cycle assessment can vary dramatically. Consistency in the basic parameters underlying this method is essential to enabling meaningful comparisons of green building products.

## CONCLUSION

USGBC appreciates the opportunity to comment on desired revisions to the *Guides*. Such revisions are appropriate at this time to provide the greatest degree of protection to consumers and to maintain the integrity of environmental claims in this rapidly expanding market. USGBC stands ready to assist you in any way possible. Please let us know if we can provide any additional information to you.

Sincerely,

Michelle Moore  
Senior Vice President of Policy and Public Affairs

# **APPENDIX**



for Homes

## Project Checklist

### LEED for Homes in California

Builder Name:	La Quinta Redevelopment Agency
Home Address (Street/City/State):	[REDACTED]

<b>Input Values:</b> No of Bedrooms: [REDACTED]	<b>Minimum No. of Points Required:</b> Gold    66    Platinum    81																																																																																										
Detailed information on the measures below are provided in the companion document "LEED for Homes Rating System"																																																																																											
<b>Max Points Available</b>																																																																																											
<b>Innovation and Design Process (ID)</b> (Minimum of 0 ID Points Required) <b>9</b>																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Y/Pts</th> <th>No</th> <th>NA</th> <th>Measure</th> <th>Requirement</th> <th>Points</th> </tr> <tr> <td>y</td> <td></td> <td></td> <td>1.1</td> <td>Integrated Project Planning</td> <td>Preliminary Rating</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>1.2</td> <td>Integrated Project Team</td> <td>Prerequisite</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1.3</td> <td>Design Charrette</td> <td>1</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td>2.1</td> <td>Quality Management for Durability</td> <td>Durability Planning; (Pre-Construction)</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td>2.2</td> <td>Wet Room Measures</td> <td>Prerequisite</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td>2.3</td> <td>Quality Management</td> <td>Prerequisite</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td>2.4</td> <td>Third-Party Durability Inspection</td> <td>3</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>3.1</td> <td>Innovative / Regional Design</td> <td>Trellis Shading -- EA-Gen-23</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>3.2</td> <td>100% light colored hardscape -- SS-03-08</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>3.3</td> <td>100% light colored hardscape</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>3.4</td> <td>Excellence in irrigation design</td> <td>1</td> </tr> <tr> <td colspan="6" style="text-align: center;"><b>8</b>    Sub-Total</td> </tr> </table>	Y/Pts	No	NA	Measure	Requirement	Points	y			1.1	Integrated Project Planning	Preliminary Rating	1			1.2	Integrated Project Team	Prerequisite				1.3	Design Charrette	1	y			2.1	Quality Management for Durability	Durability Planning; (Pre-Construction)	y			2.2	Wet Room Measures	Prerequisite	y			2.3	Quality Management	Prerequisite	3			2.4	Third-Party Durability Inspection	3	1			3.1	Innovative / Regional Design	Trellis Shading -- EA-Gen-23	1			3.2	100% light colored hardscape -- SS-03-08	1				3.3	100% light colored hardscape	1				3.4	Excellence in irrigation design	1	<b>8</b> Sub-Total						calculator												
Y/Pts	No	NA	Measure	Requirement	Points																																																																																						
y			1.1	Integrated Project Planning	Preliminary Rating																																																																																						
1			1.2	Integrated Project Team	Prerequisite																																																																																						
			1.3	Design Charrette	1																																																																																						
y			2.1	Quality Management for Durability	Durability Planning; (Pre-Construction)																																																																																						
y			2.2	Wet Room Measures	Prerequisite																																																																																						
y			2.3	Quality Management	Prerequisite																																																																																						
3			2.4	Third-Party Durability Inspection	3																																																																																						
1			3.1	Innovative / Regional Design	Trellis Shading -- EA-Gen-23																																																																																						
1			3.2	100% light colored hardscape -- SS-03-08	1																																																																																						
			3.3	100% light colored hardscape	1																																																																																						
			3.4	Excellence in irrigation design	1																																																																																						
<b>8</b> Sub-Total																																																																																											
<b>Location and Linkages (LL)</b> (Minimum of 0 LL Points Required) <b>OR 10</b>																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Y/Pts</th> <th>No</th> <th>NA</th> <th>Measure</th> <th>Requirement</th> <th>Points</th> </tr> <tr> <td></td> <td></td> <td></td> <td>1</td> <td>LEED-ND Neighborhood</td> <td>LL2-5</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>2</td> <td>Site Selection</td> <td>Avoid Environmentally Sensitive Sites and Farmland</td> </tr> <tr> <td></td> <td></td> <td></td> <td>3.1</td> <td>Preferred Locations</td> <td>Select an Edge Development Site</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>3.2</td> <td></td> <td>Select an Infill Site</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>3.3</td> <td></td> <td>Select a Previously Developed Site</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>4</td> <td>Infrastructure</td> <td>Site within 1/2 Mile of Existing Water and Sewer</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.1</td> <td>Community Resources &amp; Public Transit</td> <td>Basic Community Resources / Public Transportation</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>5.2</td> <td></td> <td>Extensive Community Resources / Public Transportation</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5.3</td> <td></td> <td>Outstanding Community Resources / Public Transportation</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>6</td> <td>Access to Open Space</td> <td>Publicly Accessible Green Spaces</td> </tr> <tr> <td colspan="6" style="text-align: center;"><b>9</b>    Sub-Total</td> </tr> </table>	Y/Pts	No	NA	Measure	Requirement	Points				1	LEED-ND Neighborhood	LL2-5	2			2	Site Selection	Avoid Environmentally Sensitive Sites and Farmland				3.1	Preferred Locations	Select an Edge Development Site	2			3.2		Select an Infill Site	1			3.3		Select a Previously Developed Site	1			4	Infrastructure	Site within 1/2 Mile of Existing Water and Sewer				5.1	Community Resources & Public Transit	Basic Community Resources / Public Transportation	2			5.2		Extensive Community Resources / Public Transportation				5.3		Outstanding Community Resources / Public Transportation	1			6	Access to Open Space	Publicly Accessible Green Spaces	<b>9</b> Sub-Total						100% onsite infiltration																		
Y/Pts	No	NA	Measure	Requirement	Points																																																																																						
			1	LEED-ND Neighborhood	LL2-5																																																																																						
2			2	Site Selection	Avoid Environmentally Sensitive Sites and Farmland																																																																																						
			3.1	Preferred Locations	Select an Edge Development Site																																																																																						
2			3.2		Select an Infill Site																																																																																						
1			3.3		Select a Previously Developed Site																																																																																						
1			4	Infrastructure	Site within 1/2 Mile of Existing Water and Sewer																																																																																						
			5.1	Community Resources & Public Transit	Basic Community Resources / Public Transportation																																																																																						
2			5.2		Extensive Community Resources / Public Transportation																																																																																						
			5.3		Outstanding Community Resources / Public Transportation																																																																																						
1			6	Access to Open Space	Publicly Accessible Green Spaces																																																																																						
<b>9</b> Sub-Total																																																																																											
<b>Sustainable Sites (SS)</b> (Minimum of 5 SS Points Required) <b>OR 21</b>																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Y/Pts</th> <th>No</th> <th>NA</th> <th>Measure</th> <th>Requirement</th> <th>Points</th> </tr> <tr> <td>y</td> <td></td> <td></td> <td>1.1</td> <td>Site Stewardship</td> <td>Erosion Controls (During Construction)</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>1.2</td> <td></td> <td>Minimize Disturbed Area of Site</td> </tr> <tr> <td>y</td> <td></td> <td></td> <td>2.1</td> <td>Landscaping</td> <td>No Invasive Plants</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>2.2</td> <td></td> <td>Basic Landscaping Design</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td>2.3</td> <td></td> <td>Limit Turf</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>2.4</td> <td></td> <td>Drought Tolerant Plants</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>3</td> <td>Shading of Hardscapes</td> <td>Locate and Plant Trees to Shade Hardscapes</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>4.1</td> <td>Surface Water Management</td> <td>Design Permeable Site</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>4.2</td> <td></td> <td>Design and Install Permanent Erosion Controls</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>5</td> <td>Non-Toxic Pest Control</td> <td>Select Insect and Pest Control Alternatives from List</td> </tr> <tr> <td></td> <td></td> <td></td> <td>6.1</td> <td>Compact Development</td> <td>Average Housing Density ≥ Units / Acre</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td>6.1</td> <td></td> <td>OR Average Housing Density ≥ 10 Units / Acre</td> </tr> <tr> <td></td> <td></td> <td></td> <td>6.3</td> <td></td> <td>OR Average Housing Density ≥ 20 Units / Acre</td> </tr> <tr> <td colspan="6" style="text-align: center;"><b>17</b>    Sub-Total</td> </tr> </table>	Y/Pts	No	NA	Measure	Requirement	Points	y			1.1	Site Stewardship	Erosion Controls (During Construction)	1			1.2		Minimize Disturbed Area of Site	y			2.1	Landscaping	No Invasive Plants	2			2.2		Basic Landscaping Design	3			2.3		Limit Turf	1			2.4		Drought Tolerant Plants	1			3	Shading of Hardscapes	Locate and Plant Trees to Shade Hardscapes	4			4.1	Surface Water Management	Design Permeable Site	1			4.2		Design and Install Permanent Erosion Controls	1			5	Non-Toxic Pest Control	Select Insect and Pest Control Alternatives from List				6.1	Compact Development	Average Housing Density ≥ Units / Acre	3			6.1		OR Average Housing Density ≥ 10 Units / Acre				6.3		OR Average Housing Density ≥ 20 Units / Acre	<b>17</b> Sub-Total						via density 80du/7.43ac = 10.77 du/acre
Y/Pts	No	NA	Measure	Requirement	Points																																																																																						
y			1.1	Site Stewardship	Erosion Controls (During Construction)																																																																																						
1			1.2		Minimize Disturbed Area of Site																																																																																						
y			2.1	Landscaping	No Invasive Plants																																																																																						
2			2.2		Basic Landscaping Design																																																																																						
3			2.3		Limit Turf																																																																																						
1			2.4		Drought Tolerant Plants																																																																																						
1			3	Shading of Hardscapes	Locate and Plant Trees to Shade Hardscapes																																																																																						
4			4.1	Surface Water Management	Design Permeable Site																																																																																						
1			4.2		Design and Install Permanent Erosion Controls																																																																																						
1			5	Non-Toxic Pest Control	Select Insect and Pest Control Alternatives from List																																																																																						
			6.1	Compact Development	Average Housing Density ≥ Units / Acre																																																																																						
3			6.1		OR Average Housing Density ≥ 10 Units / Acre																																																																																						
			6.3		OR Average Housing Density ≥ 20 Units / Acre																																																																																						
<b>17</b> Sub-Total																																																																																											
<b>Water Efficiency (WE)</b> (Minimum of 3 WE Points Required) <b>OR 16</b>																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Y/Pts</th> <th>No</th> <th>NA</th> <th>Measure</th> <th>Requirement</th> <th>Points</th> </tr> <tr> <td></td> <td></td> <td></td> <td>1.1</td> <td>Water Reuse</td> <td>Rainwater Harvesting System</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1.2</td> <td></td> <td>Grey Water Re-Use System</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td>2.1</td> <td>Irrigation System</td> <td>Select High Efficiency Measures from List</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>2.2</td> <td></td> <td>Third Party Verification</td> </tr> <tr> <td></td> <td></td> <td></td> <td>2.3</td> <td></td> <td>OR Install Landscape Designed by Licensed or Certified Professional</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td>3.1</td> <td>Indoor Water Use</td> <td>High Efficiency Fixtures (Toilets, Showers, and Faucets)</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>3.2</td> <td></td> <td>OR Very High Efficiency Fixtures (Toilets, Showers, and Faucets)</td> </tr> <tr> <td colspan="6" style="text-align: center;"><b>9</b>    Sub-Total</td> </tr> </table>	Y/Pts	No	NA	Measure	Requirement	Points				1.1	Water Reuse	Rainwater Harvesting System				1.2		Grey Water Re-Use System	3			2.1	Irrigation System	Select High Efficiency Measures from List	1			2.2		Third Party Verification				2.3		OR Install Landscape Designed by Licensed or Certified Professional	1			3.1	Indoor Water Use	High Efficiency Fixtures (Toilets, Showers, and Faucets)	4			3.2		OR Very High Efficiency Fixtures (Toilets, Showers, and Faucets)	<b>9</b> Sub-Total						Toilets Showerheads, lav faucets																																				
Y/Pts	No	NA	Measure	Requirement	Points																																																																																						
			1.1	Water Reuse	Rainwater Harvesting System																																																																																						
			1.2		Grey Water Re-Use System																																																																																						
3			2.1	Irrigation System	Select High Efficiency Measures from List																																																																																						
1			2.2		Third Party Verification																																																																																						
			2.3		OR Install Landscape Designed by Licensed or Certified Professional																																																																																						
1			3.1	Indoor Water Use	High Efficiency Fixtures (Toilets, Showers, and Faucets)																																																																																						
4			3.2		OR Very High Efficiency Fixtures (Toilets, Showers, and Faucets)																																																																																						
<b>9</b> Sub-Total																																																																																											





Project Checklist for California (cont'd)

30.3% Better than Title-24:



EA 1.2 Pts Achieved

10.0

Y/Pts	No	NA	Energy and Atmosphere (EA)	(Minimum of 0 EA Points Required)	OR	38
y	10		1.1 ENERGY STAR Home	Meets ENERGY STAR for Homes with Third-Party Testing	Prerequisite	19
			1.2	Exceptional Energy Performance		2
			7 Water Heating	Efficient Distribution System		2
y			8.1 Lighting	Meet the Requirements of Title-24 in California	Prerequisite	
			8.2	Energy Efficient Lights	EA 8.3	1
3			8.3	OR ENERGY STAR Advanced Lighting Package or High-Efficacy Lighting	EA 8.2	3
			9.1			2
2			Appliances	Select Appliances from List		
			9.2	Very Efficient Clothes Washer (MEF > 1.8, AND WF < 5.5)		1
4			10 Renewable Energy	Renewable Electric Generation System (1 Point / 5% Reduction)		10
1			11 Refrigerant Management	Minimize Ozone Depletion and Global Warming Contributions		1
21			Sub-Total			
Y/Pts	No	NA	Materials and Resources (MR)	(Minimum of 2 MR Points Required)	OR	14
y	1		1.1 Material Efficient Framing	Overall Waste Factor for Framing Order Shall be No More than 10%.	Prerequisite	3
			1.2	Advanced Framing Techniques		2
		na	1.3	OR Structurally Insulated Panels	MR 1.2	2
y	6.5		2.1 Environmentally Preferable Products	Tropical Woods, if Used, Must be FSC	Prerequisite	8
			2.2	Select Environmentally Preferable Products from List		3
y	2.5		3.1 Waste Management	Document Overall Rate of Diversion	Prerequisite	3
			3.2	Reduce Waste Sent to Landfill by 25% to 100%		86%
10			Sub-Total			
Y/Pts	No	NA	Indoor Environmental Quality (IEQ)	(Minimum of 6 IEQ Points Required)	OR	20
		na	1 ENERGY STAR with IAP	Meets ENERGY STAR w/ Indoor Air Package (IAP)	IEQ2-10	12
y	2		2.1 Combustion Venting	Space Heating & DHW Equip w/ Closed/Power-Exhaust	IEQ 1	2
			2.2	Install High Performance Fireplace	IEQ 1	1
1			3 Moisture Control	Analyze Moisture Loads AND Install Central System (if Needed)	IEQ 1	1
y	2		4.1 Outdoor Air Ventilation	Meets ASHRAE Std 62.2	IEQ 1	2
			4.2	Dedicated Outdoor Air System (w/ Heat Recovery)	IEQ 1	1
			4.3	Third-Party Testing of Outdoor Air Flow Rate into Home		1
y	1		5.1 Local Exhaust	Meets ASHRAE Std 62.2	IEQ 1	1
			5.2	Timer / Automatic Controls for Bathroom Exhaust Fans		1
			5.3	Third-Party Testing of Exhaust Air Flow Rate Out of Home		1
y			6.1 Supply Air Distribution	Meets ACCA Manual D	IEQ 1	2
			6.2	Third-Party Testing of Supply Air Flow into Each Room in Home		1
y	2		7.1 Supply Air Filtering	≥ 8 MERV Filters, w/ Adequate System Air Flow	IEQ 1	1
		na	7.2	OR ≥ 10 MERV Filters, w/ Adequate System Air Flow		2
			7.3	OR ≥ 13 MERV Filters, w/ Adequate System Air Flow		1
1			8.1 Contaminant Control	Seal-Off Ducts During Construction	IEQ 1	1
			8.2	Permanent Walk-Off Mats OR Shoe Storage OR Central Vacuum		2
1			8.3	Flush Home Continuously for 1 Week with Windows Open		1
y	1		9.1 Radon Protection	Install Radon Resistant Construction if Home is in EPA Zone 1	IEQ 1	1
			9.2	Install Radon Resistant Construction if Home is not in EPA Zone 1	IEQ 1	1
y			10.1 Garage Pollutant Protection	No Air Handling Equipment OR Return Ducts in Garage	IEQ 1	2
		na	10.2	Tightly Seal Shared Surfaces between Garage and Home		1
		na	10.3	Exhaust Fan in Garage		1
3			10.4	OR Detached Garage or No Garage	IEQ 1	3
16			Sub-Total			
Y/Pts	No	NA	Awareness and Education (AE)	(Minimum of 0 AE Points Required)	OR	3
y	1		1.1 Education for Homeowner and/or Tenants	Basic Occupant's Manual and Walkthrough of LEED Home	Prerequisite	1
			1.2	Comprehensive Occupant's Manual and Multiple Walkthroughs / Trainings		1
			1.3	Public Awareness of LEED Home		1
1			2.1 Education for Building Mgrs	Basic Building Manager's Manual and Walkthrough of LEED Home		1
3			Sub-Total			
91			Project Totals (pre-participation)	Estimated Certification		120





for Homes

### Project Checklist for California (cont'd)

97	Project Totals (pre-Certification Summary)	Estimated Performance Rating	7.0
----	--	------------------------------	-----

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been met for the indicated credits and will, if audited, provide the necessary supporting documents.

Builder's Name  Company

Signature  Date

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the required inspections and performance testing for the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been completed, and will provide the project documentation file, if requested.

Rater's Name  Company

Signature  Date

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the required inspections and performance testing for the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been completed, and will provide the project documentation file, if requested.

Provider's Name  Company

Signature  Date

