

June 2, 2008

Mr. John Hrynkow
CHBA President
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Dear Mr. Hrynkow:

We are writing to you in response to numerous communications issued by the CHBA regarding the LEED® Canada rating system and the Canada Green Building Council.

The first memo which was brought to our attention was dated Feb. 22, 2008 and refers to a report prepared for CHBA, entitled "LEED – An Assessment." The report provides a critical review of the LEED® for New Construction rating system. In reviewing this document, it appears that there was a general misunderstanding of the LEED® rating system accompanied by misleading and, in places, inaccurate statements. Clearly, there is a need for clarification of a number of points raised in your report. Our response to your report is attached (see Annex 1), and we will also post our report on the CaGBC website for public access.

The CaGBC is in the process of adapting the new LEED for Homes rating system developed by the US Green Building Council. Canada is continuing the tradition of strong home-builder leadership and involvement in the adaptation process on our residential committee through a case study program of LEED® for Homes projects in Canada (with very positive response from the home building community in Canada). Our residential committee has good participation from home builders and is chaired by Andrew Pride, VP, Minto Green Team. LEED® for Homes will be a builder-friendly program providing flexibility and choice to home builders, a streamlined documentation process and a third-party delivery model.

The second memo that we are aware of is dated May 22, 2008 and outlines some of the key points regarding CHBA's opposition to LEED®.

1. "LEED in Canada actively supports and encourages the adoption of LEED standards as regulatory requirements"

The CaGBC is a not-for-profit organization made up of a cross-section of the building industry that supports the development and implementation of LEED® as an industry led,

voluntary, market based program to verify the environmental performance of buildings. Approximately 90% of the more than 1,800 member organizations of the Council represent the private sector. The authorities having jurisdiction for regulatory instruments for buildings are provinces and territories. The CaGBC has no regulatory objectives nor does it have any mandate in this area or supports “back door” regulation. We encourage government to build their *own* buildings to LEED® and are on public record in asking all levels of government to provide incentives to encourage green building and development in the private sector rather than make LEED® mandatory.

2. “...it is possible to obtain a higher level of LEED® certification without having improved the energy efficiency of the home beyond the minimum requirements? In practice, this could potentially expose the builder to accusations of ‘green washing’.”

The starting point of LEED Canada for Homes is currently intended to recognize the top 25% in energy performance of current Canadian houses. The CaGBC is currently developing an equivalency table between Home Energy Rating System (HERS) in the US and EnerGuide to establish energy performance levels of LEED for Homes in Canada. The CaGBC takes certification, which is provided through independent third parties, very seriously. In the case of LEED® for Homes, independent certification providers and raters would provide certification services to home builders locally. LEED® is well recognized internationally for its credibility and rigour in certifying environmental performance in buildings.

3. “Issues surrounding the LEED® point system have generated considerable controversy, and a growing number of lawsuits, in the U.S. where LEED® was developed.”

There are currently almost 1,800 LEED® projects registered in Canada representing more than 9.3 million m² of buildings. Almost 40% of these buildings are private sector multi-residential, mixed used or speculative office projects. There are no lawsuits in Canada involving LEED® projects that we are aware of.

Over the past two years, public sentiment about climate change and environmental issues has shifted dramatically. Canadians expect industry and government to take actions that demonstrate progress in reducing green house gas (GHG) emissions. The building industry is one of the largest contributors with 35% of GHG emissions in Canada. A report by the Commission of Environmental Cooperation under NAFTA released in March 2008, states that GHG emissions from the residential building sector in Canada will increase by 20 MT by 2030 if the industry does not take decisive action.

We have a long way to go to reduce GHG emissions and other environmental impacts from buildings. LEED for Homes will provide a national market-based

green building rating system for the home building industry in Canada. LEED for Homes is complementary to existing rating systems and guidelines such as EnerGuide and EnergyStar and will take advantage of builders trained under the R2000 program.

We trust that you will carefully consider our review of your LEED report, and hope that this will contribute to a positive dialogue between our organizations. I will call you in the very near future as we would like to discuss this issue with you further.

Yours truly,

A handwritten signature in black ink, appearing to read "T. Mueller". The signature is fluid and cursive, written in a professional style.

Thomas Mueller
President & CEO, Canada Green Building Council

Enclosure: Response to CHBA Report entitled "LEED – An Assessment"

cc: CHBA Executive Board
CaGBC Executive Committee

May 2008

Annex 1: Response to the Canadian Home Builders Association's (CHBA) Report titled: "LEED-An Assessment"

Introduction:

The Canada Green Building Council (CaGBC) has reviewed the report entitled "LEED – An Assessment", commissioned by the CHBA. This assessment is mostly related to the LEED Canada New Construction (NC) rating system, which covers buildings under Part 3 of the National Building Code.

Our review of the "LEED-An Assessment" report is structured around the key themes noted in the section titled *Issues Concerning LEED*. From each sub-section, we have selected statements for which clarification or a more complete analysis of LEED Canada rating systems needed to be provided.

First, it must be stated that LEED Canada rating systems are voluntary, market-based programs for recognizing environmental leadership, and are constantly evolving to respond to project and user needs. The current rating systems are also continually supplemented to extend to all sectors of the building industry. The CaGBC is a consensus-based, non-profit organization which is adapting and introducing LEED rating systems in Canada with direct participation from all sectors of the building industry.

Response to Concerns Raised in CHBA's Report

Point System:

- ***Why a point system?***

LEED is not the only environmental standard that uses a point system; EnergyStar, Built Green, and most other environmental performance certification systems also use "points" to scale environmental performance. The rating system scales within LEED Canada form the basis for allocating points that contribute to an overall performance rating.

- ***Point system certification leads building designers to look at individual issues in isolation and not integrated design strategies.***

The CaGBC as well as the US Green Building Council (USGBC) are strong advocates of the Integrated Design Process (IDP); and the importance of integration and systemic effects are noted throughout LEED Canada Reference Guides. An important indirect benefit of using LEED during the design process is that the broad range of environmental and health issues covered requires continued communication and interaction between members of the design and construction team. A wide range of players – builders, contractors, clients,

building occupants, building professionals, and maintenance staff – are often required to be involved in exploring and developing strategies that lead to the successful achievement of LEED requirements. The CaGBC currently offers an IDP workshop series for professionals specifically aimed at fostering such integration.

The new version of LEED for Homes (recently launched by the USGBC, with many Canadian projects) has a prerequisite and several credits available for Integrated Project Planning. The experience of Canadian projects and builders in the USGBC's pilot is guiding development of the CaGBC's new LEED for Homes rating system, which is planned for Canadian launch early in 2009. Both rating systems require a preliminary rating in which the homebuilding team determines which credits to pursue and who is accountable for each selected LEED credit. Points are also awarded for having an integrated design team, having a professional credentialed with respect to LEED for Homes, and holding an integrated design charrette. A successful launch of the Canadian program is highly likely, since 47 Canadian builders and 500 Canadian homes are already participating in the USGBC's program. (Requirements and further information can be found in the LEED for Homes Reference Guide available through the USGBC at www.usgbc.org).

- ***Point chasing***

LEED Canada strives to encourage and assist builders, professionals and developers to improve their standards of practice and performance. As stated in the LEED Canada NC Reference Guide, the details of environmental rating systems should not drive the product and process, but that the team needs to have a "...fundamental professional commitment to environmental responsibility".

Design Innovation:

- ***LEED prescriptive approach leaves little room for gaining credits for real design innovation.***

Many LEED credits offer both prescriptive and performance requirements, offering both guidance on best practices, and recognizing creative ways of accomplishing better environmental and health performance.

As well, the LEED Canada Innovation & Design Process category recognizes projects with innovative building features and sustainable building knowledge. Innovation & Design Process credits, as stated in the LEED Canada NC Reference Guide, are explicitly intended to recognize building performance that greatly exceeds those required in an existing LEED credit; and other strategies not be addressed by a LEED prerequisite or credit but that warrant consideration.

The CaGBC has published a list of over 75 strategies used to achieve Innovation and Design credits which summarize a wide variety of innovative approaches. The USGBC recently published a document listing all Innovation and Design

credits which have been accepted for its LEED rating systems. In this document the USGBC lists over 170 accepted Innovation & Design credits ranging from LEED Post-Occupancy Performance Evaluations to Flexible Building Systems Design as well as a Citywide Salvage Program. The CaGBC encourages project teams pursuing LEED Canada certification to refer to this list and to use their own creativity as guidance for new Innovation and Design credits. The document can be found online at www.usgbc.org/LEED/Credit?CIRMain.aspx?CMSPageID=1432.

Designing for credits:

- ***LEED makes no distinction in terms of location or real value or application.***
All LEED Canada prerequisites and credits have sound environmental benefits, and many recognize that the weight of their impact can change depending on project scale and location. The CaGBC already addresses energy issues associated with differing project locations and scales in LEED Canada NC and CI. Additionally, the LEED Canada Initiative is aimed at including a wider range of building sectors, and making it more scalable and more flexible. In future, LEED will emphasize actual energy and water use performance, as well as carbon emission reductions.

Anomalies:

- ***A number of LEED points can be gained for items that have no effect on the actual building, its impact on the environment or its suitability to meet the needs of the occupants (i.e. Redevelopment of Contaminated Sites).***
All LEED Canada rating system criteria were established to reduce or eliminate the environmental impact of buildings and building construction, as explained in the LEED Canada Reference Guides.

LEED Canada-NCs SSc3-Redevelopment of Contaminated Sites points out that the environmental benefits of building on a remediated site are considerable. Developments on these sites put abandoned land back into productive use; and as part of the clean up efforts reduce the exposure of humans and wildlife to pollution. It provides an alternate option to developing on previously undeveloped land, which decreases the overall environmental impact of development and preserves greenfield sites for ecological functions or agriculture (the loss of habitat has been identified as a key factor in loss of species worldwide.)

- ***There are a number of LEED points available for commitments of as little as two years (hybrid vehicles and green power)***
One of the goals of such credits as SSc4.3 Alternative Transportation: Hybrid and Alternative Fuel Vehicles and EAc6: Green Power is market transformation toward more environmentally-friendly and socially responsible products and services. For instance, the total yearly sales of hybrid cars in the U.S. has gone from zero in

1999 to 250,000 in 2006, and LEED credits have played a part in encouraging their market growth.

This shift towards purchasing environmentally friendly products and services can also be seen in the green power market, which has also seen a significant increase in the number of organizations purchasing green power over the last five years. LEED Canada-NC requires a 2 year commitment for purchasing green power and hybrid or alternative fuel vehicles, and has prompted many LEED registered projects to improve their design and purchasing policies. Both lead to reduced greenhouse gas emissions released by automobile use associated with a project, and with improved building operations.

Cost of compliance:

- ***Compliance costs for LEED certification are significant, mainly soft costs for additional design fees, commissioning costs, documentation costs and LEED fees***
As we mentioned above, the report on LEED by the CHBA is focused on LEED for New Construction, which is aimed on institutional, commercial and industrial buildings, unlike the LEED for Homes program for new housing. Additional Design Fees: According to two studies completed by Davis Langdon (one of the largest costs consulting firms in North America) on the cost of LEED-NC projects, they concluded that *"many projects are achieving LEED within their budgets and in the same cost range as non-LEED projects."* Davis Langdon cites the following factors that influence project costs: program, demographics, climate, and local design regulations. Please see the following link for the latest LEED cost report produced by Davis Langdon.
www.davislangdoncrosher.com/upload/images/publications/USA/The%20Cost%20of%20Green%20Revisited.pdf

- 1) Commissioning Costs: The commissioning process ensures that equipment performs optimally and thereby contributes to a building's performance and operation efficiencies. Commissioning benefits owners through improved energy efficiency, improved workplace performance due to higher quality environments, reduced risk from threats such as faulty equipment, poor indoor air quality or thermal comfort complaints. Commissioning reduces or eliminates liability exposure related to poor indoor air quality by providing a documented record of building performance and through training building operators in the proper maintenance of building systems, which can also reduce operating and equipment replacement costs. Several energy service companies have expressed to the Council that they commissioning to provide the highest rate of return of energy efficiency measures they implement.

LEED for Homes has no credits requiring commissioning, so the report's comments are not applicable.

- 2) Documentation Costs: LEED introduced many management practices aimed at better environmental and health performance that were new to the development industry; now industry leaders are incorporating these into their standard operating procedures. Most are finding that having done so, their products, and processes are improved. Initially, the LEED rating system was criticized for being a cumbersome and costly process to document by those using it for the first time; and both the CaGBC and the USGBC have taken steps to ease the task. Both now accept electronic submissions which have reduced the paper work associated with certification, which streamlines and eases the process of certification

Under the new LEED Canada Initiative, the Council is examining ways to streamline certification and the certification delivery process. The key goal of these changes is to make the LEED certification faster, easier, and cheaper to use, while maintaining its technical rigour and integrity. Third party certification is paramount to the credibility of any building rating system operating in the marketplace today, and allows the Council to credibly confirm environmental performance and verify progress towards environmental goals.

- 3) LEED Fees: LEED Canada-NC certification is revenue-neutral for the CaGBC. LEED registration and certification fees charged per project are set to cover the costs of independent certification review. Fees are structured to encourage smaller projects typical of Canada and do not cover the Council's overhead costs. Most certification programs require certification fees to pay for the costs of independent professional review and assessment. The CaGBC will be launching, as a part of the next generation of LEED Canada, a web-based delivery process which is expected to streamline certification and reduce costs.

The USGBC fees for its LEED for Homes total \$400 per house for USGBC members; less for production builders building more than 9 houses per year). Independent "providers" have been established to offer certification and training services, to ensure competition in the marketplace and to keep costs to builders and home buyers low. The CaGBC intends to follow a similar path with its LEED for Homes rating system, and will set its fees to ensure registration and certification is economically beneficial to both builders and home buyers.

Building quality homes with high environmental, health and energy performance can sometimes increase initial costs - typically an excellent investment, especially with rising energy costs. Monthly carrying costs (addressing both construction costs & utility cost savings) documented for US LEED for Homes-certified projects are typically little different from conventional construction.

Lack of a Transparent Consensus Process:

- ***The CaGBC is not an accredited standards organization. Further, the Council does not reference accredited standards as the basis for many of the LEED requirements or the evaluation processes***

LEED rating systems are not formal standards in and of themselves, they are criteria established by leaders in the industry on what constitutes good practices to reduce the environmental and health impacts of development. Instead of creating many new standards, LEED references recognize leading industry standards created by accredited standards organizations, such as:

- The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), which is a recognized organization that develops stringent energy and mechanical engineering standards, guidelines and practice guides;
 - The Canadian Model National Energy Code for Buildings, which is the nationally recognized model code for building energy performance;
 - The Canadian Standards Association, which is the premier Canadian standards-setting body for a broad range of issues;
 - The Forest Stewardship Council (FSC), an international non-profit organization established in 1993, which promotes environmentally responsible forests management by setting standards, certifying and labeling products.
- ***Evaluation criteria associated with particular LEED points are skewed toward certain products and systems without explanation***

The standards and evaluation criteria associated with LEED credits are based on established standards created by third party organizations which have stringent criteria for products and materials to adhere to. LEED deliberately does not recommend any products or technologies but rather it references standards to which products must adhere to.

For example, Green Seal and California's South Coast Air Quality Management District: The Green Seal standard used for EQ Credit 4.2 Low Emitting Materials Paints and Coatings and the California's South Coast Air Quality Management District used for EQ Credit 4.1 Low Emitting Materials Adhesives and Sealants, do not require project teams to purchase any products certified by these organization. Instead, LEED simply requires projects use products which meet their maximum VOC limits.

- ***The CaGBC provides no explanation for its choice of rating system***

In 2000/2001, a partnership of three levels of government and two utilities in BC commissioned Dr. Ray Cole from University of British Columbia School of Architecture to research and evaluate the most appropriate green building rating system to introduce in BC. It was recommended to use the LEED rating system

developed by the USGBC. While this process was underway, a national organizing body, Sustainable Buildings Canada, dedicated to green buildings in Canada, was created with support from the Royal Architectural Institute of Canada. It retained Dr. Cole for further work and concluded that LEED was also the best rating system for Canada. The CaGBC was created to administer the system in Canada.

Development of the new LEED for Homes rating system is guided by a volunteer committee of industry leaders, including homebuilders, developers, research organizations and key federal government departments. Committee members were carefully selected to represent all industry stakeholders.

Quality Assurance:

- ***No educational or professional background, or experience, is necessary to write the exam and receive the designation of LEED AP***

Providing training and accreditation for individuals under the LEED system encourages and promotes a higher understanding of environmental design, construction and operation. The purpose of LEED exam is to ensure that: professionals (in addition to their professional designations) build their knowledge and skills in green design and construction practices, understand and are able to participate in integrated design, provide critical input into green projects and submit these projects for certification. The exam tests the technical LEED requirements, resources, and processes. The LEED accreditation exam provides sufficient rigour to thoroughly test an individual's expertise.

There are additional educational and certification requirements for LEED for Homes. In a new approach, LEED for Homes projects are required to be rated by a LEED for Homes Provider – local organizations with demonstrated technical experience and expertise in their region's market. A LEED for Homes Provider offers green home rating support services to builders; and trains, coordinates and oversees LEED qualified inspectors and builder support staff.

Providers demonstrate outstanding abilities and have a proven record of supporting builders in the construction of green homes. For more information on LEED for Homes providers and other frequently ask questions visit: <http://www.usgbc.org/ShowFile.aspx?DocumentID=3911>.

- ***There is no disclosure of any follow up verification of either the construction or the actual performance of LEED projects***

Currently, performance evaluations on LEED Canada NC projects are not required, since it is aimed at certifying excellence in design and construction. The CaGBC is currently working on creating a new certification/verification system starting with existing buildings that is aimed directly at verifying and certifying actual performance and operational practices.

There are a number of organizations such as the New Building Institute (NBI) who have performed post-occupancy evaluations of LEED-NC certified buildings, and found that on average LEED buildings are performing 25-30% better than the national average and that Gold and Platinum buildings are approaching the interim goal of Architecture 2030. NBI's report titled Energy Performance of LEED for New Construction Buildings can be found at www.newbuildings.org Additionally, LEED for Existing Buildings administered by the USGBC requires a full evaluation during a specified performance period and re-certification every 5 years.

None of the building rating tools which are currently operating in the marketplace include performance verification after occupancy. Performance verification is a critical next step in the evolution of green "high-performance buildings" in Canada. The CaGBC is currently undertaking performance assessment, benchmarking and evaluation in about 400 buildings across Canada. This is the beginning of a bigger change in making performance verification and performance management of buildings an integral part of new and existing buildings and homes.

Marketplace Confusion:

- ***LEED for Homes in Canada will not have any performance criteria that would set it apart from already established programs***
LEED for Homes is intended to be a national rating system for low-rise residential home construction operated by the CaGBC. What sets LEED for Homes apart from other tools is its comprehensive nature and rigour in improving the performance of low rise residential new construction, and the wide range of environmental and health issues it addresses. LEED for Homes focuses not only energy, but also on ventilation, water conservation, healthy material selection and recycling, site development, community development and education. LEED for Homes is a leadership system targeting high performance in residential construction not incremental improvements.
- ***LEED for Homes in Canada will not ensure the same standards of energy efficiency and environmental impact reduction as a program such as R-2000***
LEED for Homes has, in fact, energy performance standard prerequisites which are mandatory for certification and ensure major improvements in Canadian housing's energy performance. The starting point of LEED Canada for Homes energy performance certification is currently intended to recognize the top 25% in energy performance of current Canadian houses.

LEED for Homes offers two energy certification paths : the performance path awards points for increasing levels of home energy, citing EnergyStar for Homes, and will provide "translator" tools that recognize other credible Canadian and US energy evaluation systems, such as EnerGuide and HERS. The second path

includes prescriptive requirements for insulation, air infiltration, windows, heating and cooling systems, space heating and cooling equipment, lighting, and appliances that are a major advance on current standard practice.

- ***LEED for Homes does not employ the "House as a System" approach to design, construction, and verification***

The LEED for Homes Rating System and Reference Guide encourages a holistic integrated design that consider the "House as a System" approach, and addresses constraints of site and location. They emphasize linkages between energy, indoor environment, materials, water, site, location, and homeowner awareness.

- ***USGBC has set a target of 1,000,000 LEED homes by 2010. This level of penetration cannot be achieved unless either the standard is set very low or, at some level, the program is made mandatory by housing regulators.***

Currently, the Canadian building industry is responsible for over 30% of the nation's greenhouse gas emissions. The CaGBC recognizes that the building industry can play a significant role in lowering Canada's greenhouse gas emissions.

LEED is not intended to be a regulatory instrument. The CaGBC is a non-profit organization and proponent of voluntary market-based-solutions to improving the performance of buildings. LEED was developed as a voluntary system to engage and enable builders and developers to adopt green building practices and technologies, and to certify green buildings to provide them with a competitive edge in the marketplace. Provinces and territories retain the authority and jurisdiction in Canada over the adoption and regulation of building codes for homes and buildings; use of LEED as a regulatory instrument is not the intent of the Canada Green Building Council.