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### **Written testimony of Ward Hubbell, President, Green Building Initiative**

House Select Committee on Energy Independence and Global Warming  
Building Green, Saving Green: Construction of Sustainable and Energy-Efficient Buildings  
United States House of Representatives  
May 14, 2008

Chairman Markey, Ranking Member Sensenbrenner and members of the committee, thank you for the opportunity to showcase the benefits of green buildings, as well as highlight the work of the Green Building Initiative (GBI).

Although GBI was unable to appear in person today, we wanted to ensure that the committee had the opportunity to hear a perspective from an organization aiming to bring green building to mainstream builders and practitioners.

With oil prices at \$120/barrel, home heating and other energy costs creating a serious challenge for middle –even some upper class families–not to mention a growing consensus around the existence of climate change and our role in accelerating it–the idea of green building has gone, seemingly overnight, from a fringe movement of the architectural elite to the center line of Main Street.

When organizations like the National Association of Homebuilders, the Carpenters Union and Habitat for Humanity start putting an issue near the top of their agenda, you know you've got an issue that cuts through the middle of America.

Why the focus on buildings?

According to the US Department of Energy, buildings consume more energy and emit more greenhouse gases than any other single source. So while this is a pretty dire commentary on our built environment, there is another statistic that creates some optimism. By 2035, the American Institute of Architects estimate, 75% of the buildings in this country will be either new or remodeled.

Talk about an opportunity.

As a policy maker, working to improve the design and operation of buildings is an important pursuit. At a state level, this year alone there have been more than 200 separate legislative proposals in more than 30 states seeking to address green building in one form or another, ranging from tax incentives to expedited permitting to mandates. At the municipal level, many mayors around the nation have accepted something called the 2030 Challenge -- a goal to achieve net carbon neutrality in all buildings in their cities by year 2030.

## Multiple Organizations, Standards, and Tools are Needed

Up until a few years ago, there was one private sector organization – the US Green Building Council – and one method – a rating system they own called LEED – that most of us looked to for solutions in the area of green building.

But like any movement that achieves lasting change, it evolves and matures over time. One such sign of this is the entrance of other organizations, such as those testifying before you today and my own—who are working to try and create different approaches for solving this problem.

The Green Building Initiative is a not-for-profit, 501(c)(3) public charity dedicated to accelerating the practice of designing and maintaining more energy efficient, healthier and less environmentally-impactful buildings.

We started this organization because we believed that the mainstream builder – and for that matter, the mainstream consumer – was yet unrecruited to the cause of green building. Organizations like the USGBC were certainly making progress but the focus has been on the top 25% of buildings—often the large, signature projects whose budgets can absorb the high cost of environmental certification.

In our view, there was not yet a practical path to green for the vast majority of building projects.

GBI wanted to change this reality in the commercial market. One of the things we did was to take a very successful and highly credible green rating tool from Canada and introduce it to the US market. It's called Green Globes™ and it is gaining acceptance throughout public and private sectors. While keeping rigor and adherence to high performance standards at the forefront of our program, GBI has significantly streamlined many aspects of the green building process that create perceived barriers for practitioners and the public. Examples of our innovations include:

Green Globes™ requires third party assessment before a building can earn one, two, three, or four globes. GBI requires that third-party assessors be licensed architects and engineers with 15+ years of experience. Our process is unique in that we do not require GBI-specific documentation, but instead rely on the design and construction documents—drawings, specifications, energy modeling, etc.—created through a normal process. We are also unique in that we require an on-site walk through of the building by our highly qualified and trained third-party assessors. This has proven to be a cost-effective process that has helped to keep administrative burdens to a minimum for all parties seeking certification.

Green Globes™ is also an interactive web-based tool which can be used not only to assess a building using our built-in environmental rating system, but can also walk design teams through various strategies to determine one that works for the building and provides the most environmental benefits. Think of a Turbo Tax® for green buildings. We believe this tool is helping to make green building accessible for mainstream America because it is easier and much, much less expensive to use; we can do for a few thousand dollars for which others may pay hundreds of thousands of dollars.

Green Globes™ is also the only commercial building rating system undergoing the rigors of a third-party codified consensus process. This simply means that the content of our rating system – how it assigns points, what it recognizes and what it doesn't – is in the hands of an independent technical committee over which we have no control. GBI was the very first green building organization to earn accreditation as a developer of standards under the American National Standards Institute. As such, we took a leadership role in raising the bar by which we judge how rating systems are created and

evaluated over time. GBI is the only standard developer taking its commercial building rating system all the way through an ANSI-approved consensus process.

GBI's proposed American National Standard 01-2008P—as the newest version of the Green Globes™ system—was posted for public comment on April 25, 2008, and we expect by early next year that Green Globes™ will be the first Green Commercial Building Assessment Protocol to be recognized as an American National Standard. This proposed standard represents contributions from EPA, GSA, DHHS, as well as the AIA, ASHRAE, American Lung Association, top green building professionals, product manufacturers, and numerous cities and states.

Green Globes™ is also the only green building rating system for New Construction that uses something called the Commercial Building Energy Consumption Survey database, widely recognized as the best U.S. resource for actual building performance data. We are recognized as an EPA Energy Star partner and our benchmarking process closely aligns with the goals of the Energy Star program.

Over the past four years, we have enrolled hundreds of buildings around the country – schools, hotels, office parks, recycling centers, medical buildings, banks, light industrial. We're certifying buildings for corporations like Bristol Myers Squibb, Pfizer, Capital One and MeadWestvaco; we've certified state and federal buildings, including the Clinton Presidential Library and the state Dept. of Environment Quality building in Little Rock. Green Globes™ is also now recognized alongside LEED in laws passed in 14 states and a growing number of cities and counties.

### **What Can Congress Do to Help Promote Growth in Green Building**

There are several important ways that Congress can help us achieve measurable energy savings and reduce the environmental impacts of buildings. Two key ways are:

1. Harness the competition between rating systems, standards, and tools because competition has yielded enormous benefits. Keeping policies open and neutral is important to continuing this progress. Avoid selecting one brand over another (i.e. Green Globes, LEED, Green Communities, ASHRAE, etc., are all offering a means to an end. We have yet to find one and only one silver bullet for buildings.)

Since GBI came into the marketplace, we've seen an increase in the use of technology for cutting down on the time and cost of getting an environmental certification. GBI introduced North America's first web-based tool for environmental assessment of buildings. Now others such as the National Association of Home Builders (NAHB) and LEED have taken steps to develop online templates and electronic methods.

We've seen a move toward using recognized consensus-based processes. Three years ago, GBI became the first green building organization in the country to put its rating system (Green Globes) through an ANSI-approved consensus process. We believe this has created a new benchmark for credibility and others, such as the National Association of Home Builders, have followed suit. ASHRAE also deserves credit for their work to develop a minimum performance standard for high performance buildings through an ANSI process. Whereas GBI's standard is a rating system incentivizing users toward multiple higher levels of performance, the ASHRAE standard was written in mandatory language for adoption into building codes.

We've also seen a greater emphasis on Life Cycle Assessment (LCA). LCA is becoming the preferred method of evaluating the cradle to grave environmental impacts of building products and we were the first organization to commission leading edge research on building assemblies. We are now incorporating the resulting LCA data and tool into our rating system. We expect others will shortly follow our lead as we have allowed the tool to be made available for free (ATHENA® *EcoCalculator for Assemblies*, [www.athenasmi.org](http://www.athenasmi.org)).

Also in our proposed standard we are introducing the use of CO2 as a benchmark for buildings and requiring a minimum achievement in the energy area where the performance path is based on a 50% reduction in CO2 equivalent (CO2e). This is a measure widely used in other countries and GBI believes that as Green Globes™ takes steps to increase the bar in these areas, others will again follow suit.

GBI has helped to contribute to the debate on how to best predict and address the projected energy performance of buildings. Until GBI entered into the marketplace, energy projections were primarily based on a percentage better than code. But a 2008 New Buildings Institute study of existing LEED certified green buildings shows that 50% of green buildings surveyed do not qualify for Energy Star ratings (which if they did would mean they are in the top 25% of energy efficient buildings nationwide). What can we all learn from the early adopters of green building? For one thing, we can continue to debate the process we use for energy benchmarking. Since 2005, GBI has relied on the CBECS database and the Energy Star Target Finder and have directed our users toward these tools because they are based on actual building performance data. As it turns out, in 2007 Architecture 2030 and AIA also began recommending the use of CBECS. GBI has been ahead of the curve on many issues, but collectively the green buildings' community has a long way to go to develop more reliable methods for assessing the many factors involved in predicting energy use. We are pleased to help be a catalyst and advocate for better data and "outside of the box" thinking.

2. Congress can help contribute to the all-important collection of building data. We need to continue to invest in data on our existing building stock so that tools such as the Energy Star Target Finder and others like it are relying on the most accurate and comprehensive data possible. Currently, Energy Star Target Finder for new buildings and Energy Star Portfolio Manager for existing buildings address about 75% of buildings nationwide—which is a great accomplishment and certainly gets us much closer to our desire for "mainstream" information. However, we need more investment in agencies like the Energy Information Administration (EIA) to ensure that the best tools available to us (like CBECS and Energy Star Target Finder) become even better predictors of actual building performance by having more data available through them to the public.

Looking ahead, the Green Building Initiative will continue our efforts to help facilitate environmentally beneficial design for new buildings. However, we're also well aware that the greater impacts to be made are in improving the operation of existing buildings. For that reason, we've launched a version of Green Globes—called Green Globes for Continual Improvement of Existing Buildings (Green Globes-CIEB)—that will help building owners improve the operations and reduce the carbon footprint of their building portfolios. To that end, we have just signed an Memorandum of Understanding with the Building Owners and Managers Association, International (BOMA) where a number of their largest portfolio managers are about to begin using our Green Globes-CIEB system.

I'd also like to reinforce that green certification is only a means to an end. In the grand scheme of things, organizations and rating systems don't matter if we don't accomplish our ultimate objective of reducing our impact by improving the performance of our buildings. The plaque on the wall is no measure of our success—reductions in CO2 and healthier occupants and tenants are the crucial statistics we seek.

Thank you for the opportunity to express our sentiments on the important topics you are discussing today. We look forward to working with the committee on an ongoing basis.

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### **Green Building Initiative Background**

The Green Building Initiative (GBI) is a 501(c)(3) non-profit education organization based in Portland, Oregon. It was established to accelerate the adoption of sustainable design and construction practices by promoting credible and practical approaches to green building for both residential and commercial construction.

The President serves at the discretion of an independent, multi-stakeholder board of directors comprised of architecture and construction professionals, product manufacturers, non-profit organizations, university officials, and other interested third parties. Each board member is allocated one vote to guide the GBI, ensuring an equal balance of influence. For a list of board members, please visit our Web site at [www.thegbi.org](http://www.thegbi.org).

In terms of funding, the GBI has benefited from the early support of a core group of industries that are committed to advancing the green building movement by creating a variety of credible options for their builder customers. Since our inception, we have also worked tirelessly to diversify our financial base through membership, training and other initiatives. You can view the GBI's complete list of funders at [www.thegbi.org](http://www.thegbi.org).

We have also long recognized the power of collaboration and have tried to foster relationships with a variety of organizations related to the built environment to help accelerate the acceptance of sustainable design and construction in the marketplace. Some of the organizations that we have worked with include:

- American Institute of Architects
- National Association of Home Builders
- Associated General Contractors of America
- Sustainable Buildings Industry Council
- U.S. Conference of Mayors
- Building Owners and Managers Association

### **The Mission of the GBI**

The GBI is committed to helping promote green building by offering credible and practical solutions to make green design, management and assessment more accessible to a wider population of builders and designers

For residential construction, the GBI has a unique strategic partnership with the NAHB. Our role is to promote the NAHB Model Green Home Building Guidelines to residential construction professionals, and to work with NAHB chapters, called home builder associations, to develop and populate local green building programs based on the national guidelines. We provide technical assistance, promotional and marketing support, host educational seminars for builder members, and conduct market research in an effort to spur sustainable development, as well as consumer

demand for green homes. To date, in partnership with the NAHB and their local affiliates, the GBI has helped to develop and launch local and state green building programs in 15 major markets across the country. For a list of these programs, please visit [www.thegbi.org](http://www.thegbi.org).

For commercial construction, the GBI owns the rights to promote and distribute the Green Globes environmental assessment and rating system, which was originally developed for the Canadian marketplace. Green Globes is a revolutionary green management tool that features an assessment protocol, rating system and guide for integrating environmentally friendly design into commercial buildings. It features modules for New Construction and the Continual Improvement of Existing Buildings and facilitates recognition of completed projects through third-party verification. The system is successful because it is rigorous, yet easy to use and affordable. Due to its unique, Web-based platform, the detailed information and references users need to design sustainable, energy-efficient buildings are embedded within the system providing the most relevant information at exactly the time it is needed.

### **Green Globes – History and Credentials**

The Green Globes environmental assessment and rating system represents more than nine years of research and refinement by a wide range of prominent international organizations and experts.

The genesis of the system was the Building Research Establishment's Environmental Assessment Method (BREEAM), which was brought to Canada in 1996 in cooperation with ECD Energy and Environment. Pioneers of this project included Jiri Skopek, John Daggart and Roger Baldwin, who were the principal authors of the BREEAM Canada document.

In 1996, the Canadian Standards Association (CSA) published BREEAM Canada for Existing Buildings. More than 35 individuals participated in its development, including representatives from the following organizations:

- Bell Canada
- Carrier
- Canadian Construction Research Board
- Canadian Standards Association
- ECE Group
- Environment Canada
- Environmental Planning Institute of Canada
- Halozone, Inc.
- International Council for Local Environmental Initiatives
- Natural Resources Canada
- National Research Council
- Ontario Hydro
- Ontario Realty Corporation
- Tescor Energy Services, Inc.
- University of Toronto

In 1999, ECD Energy and Environment worked with TerraChoice, the agency that administers the Government of Canada's Environmental Choice program, to develop a more streamlined, question-based tool, which was introduced as the BREEAM Green Leaf eco-rating program. This program led to the development of Green Leaf for Municipal Buildings with the Federation of Canadian Municipalities later that year.

In 2000, BREEAM Green Leaf took another leap forward in its evolution, becoming an online assessment and rating tool under the name Green Globes for Existing Buildings. Also that year, BREEAM Green Leaf for the Design of New Buildings was developed for the Department of National Defense and Public Works and Government Services Canada.

In 2002, Green Globes for Existing Buildings was introduced online in the United Kingdom as the Global Environmental Method (GEM). Work also began to adapt BREEAM Green Leaf for the Design of New Buildings into the online Green Globes for New Buildings. Participants in this process included representatives from:

- Arizona State University
- Besto Group
- Building Owners and Manufacturers Association of Canada
- Canadian Construction Association
- Canadian Standards Association
- Department of National Defense
- DST Group
- Elia Sterling Associates
- Energy Profiles
- GWL Realty
- MCMP Architects
- Natural Resources Canada
- Public Works and Government Services Canada
- Stewart Energy
- TerraChoice
- The ATHENA Institute

In 2004, Green Globes for Existing Buildings was adopted by the Building Owners and Manufacturers Association of Canada (BOMA) under the name *Go Green Comprehensive* (now *Go Green Plus*). Since then, the Canadian federal government has adopted *Go Green Plus* as a green management tool for its portfolio of more than 500 existing buildings. It is also integral to the Ontario Power Authority's program for energy retrofits, and is used by most major property management firms.

#### **Green Globes and the Green Building Initiative**

In 2004, the GBI acquired the rights to distribute Green Globes for the Design of New Buildings in the United States. In adapting the system for the U.S. market, the only changes made were those necessary to make the system appropriate for the U.S. market (e.g. converting units of measurement and integration with the US Energy Star program).

However, we have since committed ourselves to ensuring that Green Globes continues to reflect best practices and ongoing advances in research and technology.

To that end, the GBI sought and received accreditation as an ANSI standards developer and began the consensus-based process of establishing Green Globes as the first ANSI standard for commercial green building. As part of the process, the GBI established a technical committee and sub-committees featuring nearly 100 building science experts, including representatives from four federal agencies, states, municipalities, universities and leading construction firms, as well as building owners. A complete list is available at [www.thegbi.org](http://www.thegbi.org).

As part of the ANSI process, the GBI has relinquished control of the Green Globes tool to the technical committee, which will determine the final standard.

### **About Green Globes**

Although many green building tools claim to be Web-enabled, this is typically limited to providing online information and templates. Green Globes' use of Web tools is far more complex, and offers a fully interactive experience.

Once an online questionnaire is completed, the system generates a point score and project design highlights. The report generated includes an educational component, which highlights sustainability attributes of the building and provides detailed suggestions for improvements that should result in a reducing the building's overall environmental impact. This is supported by hot-links to further information regarding best design practices and standards or specific information on building systems and materials. Links are selected to provide educational information, government references, NGOs, and industry research relevant to each stage of project delivery and helps users achieve a better high performance design and higher Green Globes score.

Projects are awarded up to 1,000 points based on their performance in seven areas of assessment:

#### **1. Project Management – 50 Points**

The Green Globes system places an emphasis on integrated design, an approach that encourages multi-disciplinary collaboration from the earliest stages of a project while also considering the interaction between elements related to sustainability. Most decisions that influence a building's performance (such as siting, orientation, form, construction and building services) are made at the start of the project and yet it's common, even for experienced designers, to focus on environmental performance late in the process, adding expensive technologies after key decisions have been made. This is costly as well as ineffective.

To ensure that all of the relevant players are involved, the system tailors questionnaires so that input from team members is captured in an interactive manner, even on those issues which may at first appear to fall outside their mandate. For example, while site design and landscaping may come under the purview of the landscape designers, the questionnaire prompts the electrical engineer to get involved with design issues such as outdoor lighting or security. Thus the Green Globes format promotes design teamwork and prevents a situation where, despite strong individual resources, the combined effort falls short.

Also included under project management are environmental purchasing, commissioning, and emergency response.

#### **2. Site – 115 Points**

Building sites are evaluated based on the development area (including site selection, development density and site remediation), ecological impacts (on ecological integrity, biodiversity, air and water quality, microclimate, habitat, and nocturnal fauna and flora), watershed features (such as site grading, storm water management, pervious cover and rainwater capture), and site ecology enhancement.

#### **3. Energy – 360 Points**

To simplify the process of energy performance targeting, Green Globes directs users to the Web interface used for the Energy Star Target Finder software, which helps to generate a realistic energy consumption target. As a result, an aggressive energy performance goal can be set—with points awarded for design and operations strategies

that result in a significant reduction in energy consumption—as compared to actual performance data from real buildings.

As previously stated, Green Globes is the only green rating system to use energy data generated through the DOE's Commercial Buildings Energy Consumption Survey (CBECS), which is widely considered to be the most accurate and reliable source of energy benchmarking information.

In addition to overall consumption, projects are evaluated based on the objectives of reduced energy demand (through space optimization, microclimatic response to site, day lighting, envelope design and metering), integration of "right sized" energy-efficient systems, on-site renewable energy sources, and access to energy-efficient transportation.

#### **4. Water – 100 Points**

Projects receive points for overall water efficiency as well as specific water conservation features (such as sub-metering, efficiency of cooling towers and irrigation strategies), and on-site treatment (of grey water and waste water).

#### **5. Resources – 100 Points**

The resources section covers building materials and solid waste. It includes points for materials with low environmental impact (based on life cycle assessment), minimal consumption and depletion of resources (with an emphasis on materials that are re-used, recycled, bio-based and, in the case of wood products, certified as having come from sustainable sources), the re-use of existing structures, building durability, adaptability and disassembly, and the reduction, re-use and recycling of waste.

#### **6. Emissions, Effluents and Other Impacts – 75 Points**

Points in this section are awarded in six categories, including air emissions, ozone depletion and global warming, protection of waterways and impact on municipal waste water treatment facilities, minimization of land and water pollution (and the associated risk to occupants' health and the local environment), integrated pest management, and the storage of hazardous materials.

#### **7. Indoor Environment – 200 Points**

According to the US Environmental Protection Agency (EPA), indoor air can be up to 10 times more polluted than outdoor air, even in cities where the quality of outdoor air is poor. This has obvious health implications, but the consequences are also economic. A study by Lawrence Berkeley National Laboratory found that improving indoor air at work could save US businesses up to \$58 billion in lost sick time each year, with another \$200 billion earned in increased worker performance.

This section evaluates the quality of the indoor environment based on the effectiveness of the ventilation system, the source control of indoor pollutants, lighting design and the integration of lighting systems, thermal comfort and acoustic comfort.

Projects that achieve a score of 35% or more become eligible for a Green Globes rating of one, two, three or four globes, as follows:

One Globe:            35-54%

Two Globes:	55-69%
Three Globes:	70-84%
Four Globes:	85-100%

However, buildings cannot be promoted as having achieved a Green Globes rating until the information submitted has been third-party verified by a qualified and authorized individual assessor.

The GBI currently oversees Green Globes-trained assessors comprised primarily of licensed architects and engineers with more than 15+ years of experience in building sciences and sustainability issues. The Green Globes third-party assessment process features a rigorous two-stage approach.

Stage I can be initiated by the design team as soon as the Construction Documents questionnaire is finalized. The completed questionnaire is verified against the documentation generated throughout the design process and, providing the building is on target to achieve a minimum of 35% of the 1,000 possible points, the design team receives a Certificate of Achievement. However, a final rating cannot be achieved until after a Stage II verification, which occurs post-construction. Stage II includes a site visit and walk-through by the third-party verifier and can be initiated as soon as construction is complete.

To further strengthen our third-party assessment program, the GBI recently announced an agreement with CSA America, Inc., a leading developer of standards and codes, to develop an independently accredited Green Globes Personnel Certification Program. CSA America is developing the program on behalf of GBI for assessors using the Green Globes system to verify achievements in the design and operation of green buildings. It is the industry's first independently administered certification program for third-party verifiers of green buildings.

### **Green Globes and Other Rating Systems**

There is a great deal of agreement as to what constitutes best energy and environmental practices, so the major green building standards and rating systems have more similarities than differences.

For example, a team of independent researchers at the University of Minnesota recently published the results of a three month intensive analysis of Green Globes and LEED.

The report, "Green Building Systems: A Comparison of the LEED and Green Globes Systems in the US," is available on the GBI Web site ([www.thegbi.org/gbi/Green\\_Building\\_Rating\\_UofM.pdf](http://www.thegbi.org/gbi/Green_Building_Rating_UofM.pdf)). It provides a detailed comparison of how the systems operate as well as their respective strengths and weaknesses.

Among its conclusions, the report states that "in total the systems are quite similar," and that "both include a common set of potentially impactful design elements that contribute to the improvement of a building's green performance."

The study also found that nearly 80% of the categories available for points in Green Globes are also addressed in LEED 2.2 and that over 85% of the categories specified in LEED 2.2 are addressed in Green Globes.

It concluded that, while comparing the two systems is extremely difficult, there are a number of trends "worth noting." Included in this summary were the following three points:

Green Globes "appears to be doing a fairly good job in improving upon the delivery mechanisms employed by LEED which are so often criticized," by providing an online approach to assessment that improves efficiency and reduces costs, Green Globes better integrates life-cycle thinking into its rating system, and The GBI, as an accredited standards developer under the American National Standards Institute (ANSI) "will undoubtedly enhance Green Globes presence in the marketplace" by undergoing the consensus-based process associated with creating an official ANSI standard for green building practices.

In addition, the study revealed some "moderate dissimilarity" in point allocations in the two systems, pointing out that "Green Globes emphasizes energy use above all other categories. In contrast, LEED allocates comparatively more points to the Materials section." It reported that areas such as indoor environmental quality, resources, and site ecology are similarly emphasized by both systems, and that Green Globes employs a rating criterion that reflects life-cycle thinking and covers the entire life-cycle of building materials.

It also stated that, "from a process perspective, Green Globes' simpler methodology, employing a user-friendly interactive guide for assessing and integrating green design principles for buildings, continues to be a point of differentiation to LEED's more complex, and largely paper-based system. While LEED has recently introduced an online-based system, it remains more extensive and requires expert knowledge in various areas. Green Globes' Web-based self-assessment tool can be completed by any team member with general knowledge of the building's parameters." The researchers added that, "in contrast, LEED tends to be more rigid, time-intensive, and [more] expensive to administer."

Aside from the fundamental similarities, the Green Globes system has a number of unique characteristics that make it an attractive option for those seeking a tool that's both rigorous and practical, at an affordable price. For example, Green Globes is:

***Flexible***

Designed for use on building projects of any size, Green Globes is suitable for everything from large and small offices and multi-family structures, to institutional buildings such as schools, universities and libraries.

***Encourages Building Comparisons***

Owners and developers with multiple properties can use Green Globes to assess and compare the buildings in their portfolio. As more and more buildings are Green Globes verified, point scores will also be aggregated in an anonymous database, enabling users to analyze how both their designs and existing buildings perform in relation to the median and to buildings that are similar in size, type and region.

***Promotes Integrated Design***

Green Globes facilitates the integrated design process, encouraging multi-disciplinary collaboration from the earliest stages of a project. The system guides design team members by reminding them of next steps and introducing the elements of sustainability in a logical sequence.

***Facilitates Planning***

Self-assessment occurs in two phases: during the schematic design stage (which corresponds with site plan approval) and during the construction documents stage (which typically corresponds with building permit approval). This allows design teams, clients and municipal authorities to review a detailed report that provides the percentage of points likely to be achieved (out of 1,000), highlights the project's environmental attributes, and suggests opportunities for improvement.

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