



Sustainable Building Challenge – iiSBE Canada: SB08 CALL FOR ENTRIES

What is the Sustainable Building Challenge?

The Sustainable Building Challenge is an international co-operative process to develop new building performance assessment tools and highlight innovative sustainable building design techniques. The Challenge will form a key part of the Sixth World Sustainable Building Conference (SB08) to be held in Melbourne, Australia, in September, 2008 (www.sb08melbourne.com). This is a second Call for Entries for projects to be considered as Canadian entries for SB08.

Why Should I Apply?

Canadian designers, building owners and commercial developers, including architects and engineers, are invited to submit their most sustainable projects for the worldwide Sustainable Building Challenge.

Benefits include:

- The opportunity for Canadian designers to present their projects to a wider global audience. The results of SB08 will be widely disseminated to industry journals and publications and publicized at national and local conferences across Canada
- An opportunity to learn about sustainable design strategies and assessment systems in use around the world
- An opportunity to use a highly sophisticated building environmental rating system (SBTool), which is currently being applied to projects around the globe
- The Challenge will also serve to raise awareness of green building issues and stimulate international demand for green building design and construction

Eligibility Criteria:

Commercial, institutional and multi-unit residential building types from the public or private sector will all be considered for the Sustainable Building Challenge. Minimum size is 1,000 m². Eligibility will be restricted to projects that demonstrate potential exemplary and balanced sustainable performance objectives as part of the design process. All projects must be of the highest architectural quality and must have completed design documents and, if not built, must be under construction by June 1st, 2007. In order to qualify for the Sustainable Building Challenge, projects must have completed energy simulations using either CBIP EE4 or other DOE2 based simulation programs.

Projects will be selected based on:

- Architectural quality
- Potential exemplary and balanced sustainability performance
- In depth outline of the design process and performance outcomes
- Rationalization of innovative solutions to one or more of the problems faced by designers
- Relevance and potential for project replication, including economic feasibility
- Demonstration of Life Cycle Assessment (LCA) approach to the selection of building assemblies and materials

Priority will be given to projects that support the SB08 conference theme of “connected, viable and livable” cities. These projects must sustain the immediate community and demonstrate innovative solutions to one or more of the problems faced by the building designers.

Selection Process:

Three building projects will be selected for full evaluation and presentation at the Melbourne conference. These projects will undergo a unique in depth environmental performance evaluation using the SBTool, a uniform assessment framework maintained by the Sustainable Building Challenge International Technical Committee. Results of the assessment will form the basis for comparing and contrasting the projects in Melbourne. Up to ten further projects will be selected and presented in poster format. Poster projects will be presented as informational only, and will not be required to undertake a SBTool assessment.

Performance Assessment:

Participants are expected to enter data from their projects into the SBTool, a copy of which will be provided to each project team. The iiSBE Canada SB08 Team will offer technical, and possibly financial support, the latter contingent upon the nature of the project. The level of effort required for the SBTool assessment will be similar to other systems such as LEED® or Green Globes. However, projects that have completed, or are in the process of completing a LEED® or Green Globes evaluation will incur a reduced level of effort to complete the SBTool assessment since much of the technical information will have already been compiled. The architectural team will undertake most of the SBTool effort, but some input will be required from all design disciplines involved. Accordingly, participants must be prepared to underwrite the cost/effort necessary to complete the SBTool assessment. Past experience indicates that this can approach 200 person-hours depending on the size and nature of the project.

The results of any certifications or assessments in addition to SBTool will also be noted in the Melbourne presentation.

Each building will be assessed under the following criteria:

- Site Selection, Project Planning and Development
- Energy and Resource Consumption
- Environmental Loadings
- Indoor Environmental Quality
- Service Quality
- Social and Economic Aspects
- Cultural and Perceptual Aspects

Submission Guidelines:

Submissions should be carefully prepared and neatly bound in a presentation binder and must include the following:

Fact Sheet providing the following information:

1. Project name, location, and date of construction
2. Size:
 - Gross and conditioned floor area
 - Building footprint/roof area
 - Gross wall area
3. Building type/use (define by area for mixed use)
4. Design population
5. Envelope construction:
 - Fenestration-to-wall ratio
 - Opaque wall R values
 - Window U values

- Window SHGC
- 6. Brief HVAC description
- 7. Brief lighting description
- 8. Actual or projected energy use by energy source (MJ/m²/yr, kWh/ft²/yr, \$/m²/yr, \$/ft²/yr); unusual and significant process loads should be separated from the building energy use
- 9. Projected energy use of any reference utilized for the project by energy source e.g. CBIP, ASHRAE 90.1 (specify which); (MJ/m²/yr, kWh/ft²/yr, \$/m²/yr, \$/ft²/yr)
- 10. Actual or projected water use for irrigation and building occupants (excluding and processes); litres/m² or litres per Full Time Equivalent occupant (FTE) per year as appropriate

Additional pages should include:

- General description and discussion of project (2 page limit)
- Reduced size drawings (11x17), including context plan
- Photographs (or renderings if not fully constructed), minimum 300 dpi resolution
- Description of design process, including description of energy simulations (1 page limit)
- Discussion of specific sustainability performance outcomes relative to SBTool categories as outlined under the Performance Assessment section noted above. (3 page limit)
- Discussion of capital budget and economic performance. (1 page limit)
- Acknowledgement of the level of effort necessary to complete the SBTool assessment as indicated above and a statement of willingness to provide that effort. (1 or 2 sentences)

Application Fees:

- The application fee of \$250.00 CDN must accompany the submissions. Cheques should be made payable to the iiSBE Canadian SB08 Team.

Deadline for Entries:

Projects that wish to be considered for SBC 2008 must be submitted by **4pm EDT Friday, August 18, 2007**, to the following address:

iiSBE Canada SB08 SBC Call for Entries
c/o Energy Profiles Limited
295 The West Mall, Suite 503
Etobicoke, ON
M9C 4Z4
Attn.: Bob Bach

Selection will take place in mid June, 2007.

About the iiSBE Canada SB08 Selection Team:

The iiSBE Canada SB08 Team will take responsibility for selecting the submissions and directing their preparation for the conference. The team operates under the auspices of iiSBE Canada and is composed of a voluntary committee of professionals representing a wide cross section of the building industry. The team operates in collaboration with the non profit Athena Institute and with the participation of Natural Resources Canada, Public Works and Government Services Canada, and Canada Mortgage and Housing Corporation.

About SB08 - the 2008 World Sustainable Building Conference:

The World Sustainable Building Conference series is held every three years and regularly attracts thousands of delegates from around the globe. The event provides the opportunity for the world's leading technical experts and researchers to advance their knowledge by focusing on technical developments and case studies. Seventeen countries showcased projects to over 1,800 delegates at the 2005 conference, which was held in Tokyo, Japan.

For Additional Information & Questions, Please Contact:

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