



Overview and Call for Expressions of Interest iiSBE Sustainable Building Challenge for 2007-2008

DEADLINE EXTENDED

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 Tokyo conference, and Melbourne SB08 is expected to be even larger.

The *Sustainable Building Challenge* is a process that forms an integral part of the sixth World Sustainable Building Conference (SB08), which is to be held in Melbourne Australia in September 2008 (www.sb08melbourne.org). The SB08 conference will include oral presentations and display space for assessed case studies, in addition to normal technical paper presentations. The SBC08 Challenge will enhance the development of an international co-operative process to compare existing performance assessment tools, guide the development of new ones, and promote innovative sustainable building design concepts and techniques. The SBC08 process is organized by iiSBE, the *International Initiative for a Sustainable Built Environment* (www.iisbe.org), which has organized similar events since 1998. iiSBE is a global non-profit network of researchers and experts in sustainable building.

Submission of Expressions of interest:

Projects teams that wish to be considered for SBC 2008 are required to prepare and submit an initial Expression of Interest, using the Expression of Interest Excel forms by **5pm EST Friday, 15 September 2007**, to Sabrina Morelli at smorelli@usgbc.org. You may submit an additional one-page appendix, but please ensure that your total file size is under 2 MB. An application fee of US \$125 is required as part of the Expression of Interest. Only check payments please, we can not accept any other form of payment. Make **checks payable to iiSBE** and send to:

iiSBE Sustainable Building Challenge 2007-2008
c/o Sabrina Morelli, International Programs Manager
U.S. Green Building Council
1800 Massachusetts Ave. NW, Suite 300, Washington, DC 20036

The SBC08 Process:

This document invites proposals to present case study assessments at SB08 Melbourne. Submissions are welcomed for assessments of new, renovated or existing buildings, or for urban design projects carried out at a neighborhood scale. Note that individual houses are not included in SBC08.

A joint iiSBE-SB08 committee will allocate space and time for presentation based on the apparent quality of preliminary proposals, a reasonable geographic and project diversity. The number of projects selected will also depend on the space and time available at the conference.





The SBC08 process will consist of the following phases:

- ✓ Call for Expressions of Interest closes on, **15 September, 2007**;
- ✓ Review of preliminary proposals and selection of projects, to **15 October, 2007**;
- ✓ Notification of selected project teams, 6-10 August, 2007;
- ✓ Submission of draft information to iiSBE for verification of completeness, 30 May, 2008;
- ✓ Preparation of presentation materials by selected teams, June-September, 2008;
- ✓ Presentation at SB08 Melbourne for selected teams, 21-25 September, 2008.

Building projects selected for Case Study presentations can be assessed using any recognized broad-scope performance assessment method. Although a variety of assessment methods may be used, a standard format for key performance parameters must be used in order to maximize the potential for meaningful comparisons between projects.

There will be no winners or losers in this process, which is intended to ensure that, based on the information presented at this time, proposed projects offer the prospect of sufficient quality and type of information to justify the scarce space and time at the SB08 conference.

All information submitted will remain the property of the proponent, but the proponent(s) will have to agree to permit the SB08 organizers and iiSBE to make subsequent non-commercial use of the information on their respective websites and publications.

Why should my team apply?

The selection of your team and project in the SBC08 process and subsequent presentation at the World Sustainable Building Conference SB08 in Melbourne could bring you many benefits, including:

- ✓ The results of SBC 2008 will be available in the Conference CDs, widely disseminated to industry journals and publications and publicized at national and local conferences after the conference. This will provide an opportunity for you to see performance details of other projects in comparable formats, and vice versa;
- ✓ At the conference, you and your colleagues will have an opportunity for to learn about sustainable design philosophy and practice around the world; and to obtain a detailed understanding of building performance assessment systems, their strengths and limitations;

About iiSBE, the International Initiative for a Sustainable Built Environment

iiSBE is an international non-profit organization whose overall aim is to *actively facilitate and promote the adoption of policies, methods and tools to accelerate the movement towards a global sustainable built environment*. iiSBE has an international Board of Directors from almost every continent and has a small Secretariat located in Ottawa, Canada. Our main activities include the development of performance assessment methods and software, co-sponsorship (with CIB and UNEP) of the international SB-series of conferences, the operation of a web-based database of information on sustainable building, development of education and training agendas, and networking.

Additional Information & Questions:

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or Stephen Lau, ssylau@gmail.com





Selection criteria for building projects:

- ✓ Eligible types include commercial, institutional and multi-unit residential new or renovated buildings from the public or private sector;
- ✓ Selection will also be based on the relevance of the building type and the potential for replication of the ideas demonstrated, including environmental, social and economic feasibility;
- ✓ For the design assessment of *new* or *renovation* building projects, preference will be given to building projects that have been completed after 01 December, 2004, that have completed design documents, and that have begun construction no later than 01 December, 2007;
- ✓ For the operational assessment of *existing* building projects, preference will be given to projects with operating data under occupied conditions for a minimum period of two years up to 01 December, 2007;
- ✓ The organizers will also extend specific invitations to certain projects to undergo operational assessment studies. Projects in this category will previously have undergone a design assessment process in one of the earlier *Green Building Challenge* processes (for GBC'98, SB2000, SB02 and SB05);
- ✓ Teams must indicate that their completed building case study presentation will include energy simulations using a nationally or internationally recognized hour-by-hour simulation program, or else make use of monitored operating energy data, in the case of an existing building;
- ✓ Building case study proposals must also indicate that their presentation will demonstrate the use of a recognized performance assessment system that covers most major performance issues;
- ✓ Preference will be given to building case study proposals that plan to demonstrate the use of Life Cycle Assessment (LCA) approach to the selection of construction materials;
- ✓ Architectural design quality is a consideration, although SBC 2008 is definitely not intended to be a "beauty contest".

Selection process for building project submissions:

1. Projects submitted by the deadline will be scanned for completeness of information;
2. Submissions will be reviewed according to the criteria listed above;
3. Submissions remaining will be sorted according to whether team representatives plan to attend the Melbourne SB08 conference. The intent is not to require attendance, but to identify those projects whose teams will be in a position to make oral presentations. It should be noted that teams not able to attend will still have their projects included in the Proceedings if their project is selected;
4. Selected project teams will be notified and should then begin to prepare their assessments and presentations.



Illustration courtesy of J. van Belegam

Selection criteria for urban-scale projects:

- ✓ For the purposes of SBC 2008, urban-scale projects are defined as new or renovated urban areas that contain multiple building types, local infrastructure and transportation systems and that contain a planned population in the range of approximately 2,500 to 25,000 persons;
- ✓ Planning studies or implementation plans and other documents should have been completed after 01 January, 2004, and implementation should have begun, or there should be a clear commitment to do so before September, 2008;
- ✓ One consideration for selection will be the relevance of the urban area type and its potential for replication;
- ✓ Urban projects should demonstrate a potential for exemplary and balanced sustainability performance, demonstrated through the use of LEED Neighborhood, CASBEE Neighborhood or other recognized urban assessment system. Given that there are few neighborhood assessment systems available, the results of other technical studies that demonstrate environmental, social and economic feasibility will also be accepted;
- ✓ Innovative solutions to local transportation, infrastructure and the integration of systems will be a selection factor;
- ✓ Potential for urban design quality will also be considered.

Selection process for urban project submissions:

Same as selection process for building project submissions - see description on previous page.

Information and Presentation Requirements - if your project is selected

Presentation requirements for all projects selected for presentation:

All presentations should be prepared as English-language electronic files suitable for PowerPoint or similar presentation applications, following a hard/soft copy format guideline that will be provided to selected project teams. Teams should also prepare an A4 or US Letter brochure that may contain additional supporting information in English and other languages if desired.



At the World SB08 conference, the oral case study sessions will be arranged as follows:

- ✓ First, an overview of the assessment systems used will be presented;
- ✓ Building and Urban case studies will be presented, grouped by type;
- ✓ Finally, a panel discussion of presenters will feature a discussion of how the choice of the assessment tool(s) influenced the design or operation.

Baseline information required for building projects selected for presentation:

The following are required as a minimum set for baseline information about buildings:

1. Names of owner, developer and principal design team members;
2. Building occupancy type(s);
3. City and country location;
4. Heating degree-days and cooling degree-days;
5. Gross area above ground, m²;
6. Gross area including below-ground area, m²;
7. Number of stories above ground;
8. Estimated population during normal operating conditions;

Performance information required for building projects selected for presentation:

The following are required as a minimum set for the design or operating data of buildings, *in addition to* assessment system results:

1. Distance from public transport stop in m.
2. Predicted or actual km traveled per year to and from the building by all occupants whose primary mode of transport is a motor car;
3. Development density as ratio of density of surrounding uses;
4. Predicted or actual kWh/m² per year primary operating energy for all operating end uses;
5. Predicted or actual Kg/m² per year eCO₂ for all operating end uses;
6. GJ/m² of embodied energy for the total of sand, gravel, cement, stone, masonry, steel and glass used in the project (including components used in concrete);
7. Tonnes /m² or Kg/m² of total weight of new materials in the project;
8. Predicted or actual Lpp per year or L/ m² per year of potable water consumption;
9. Predicted or actual indoor CO₂ concentrations in ppm for typical occupancies under normal operating conditions;
10. Life cycle cost, or capital cost and actual or estimated operating cost;
11. Percent of construction cost spent within the greater urban area;
12. Other performance information of interest that is not included above or in the performance assessment result;