

Summary of Case Study Assessment Sessions at SB05 Conference

As part of the preparations for the SB05 Tokyo Conference, the conference organizers issued a call for Case Study Assessment projects in October 2004. The request for proposals included the following description of requirements:

- 1) Case study should focus on Green buildings and its assessment implementations;
- 2) There is no academic review process but session secretary will check and advise the quality of presentation contents;
- 3) Applicants can apply to both academic session and case study session of SB05 Tokyo;
- 4) Applicants can use any building environmental assessment tool(s);

The Case Study sessions were organized as two parallel workshop streams within the overall conference. This aspect of the conference represented a continuation of a conference feature introduced at the GBC'98 conference in Vancouver, and continued at SB2000 in Maastricht and SB02 in Oslo. The original purpose, in 1998 and 2000, was to display projects that were assessed using the GBTool rating system. Other rating systems were included in 2002 and in the SB05 Tokyo event, but the purpose remained the same: to display and to discuss high-performance buildings that have been assessed using available rating systems. This implies that presentations should provide a balance between a discussion of the building and its design features, the process of assessment, and the nature of the rating system itself. As the field has matured and rating systems have become better known, emphasis on explanation of the rating system has diminished in importance, but a balance between design features and the assessment process (including possible adaptations of the rating system) has remained important.

At SB05, the projects selected for presentation consisted of 49 buildings, including 8 multi-unit housing projects, 3 houses, 18 office buildings and 4 educational buildings. The remaining 16 projects span a wide variety of types, including institutional buildings, cultural centres, an airport, and a theme park. 7 rating systems that result in scores were used, 2 others that provide other forms of results, and one project that used a broad-spectrum set of assessment tools of a somewhat different nature. Of the 49 projects, 29 were assessed using GBTool, CASBEE was used to assess 16 projects, and other systems were used in a smaller number of cases.

More detail on the projects and assessment results are shown in Appendix 1, but readers should be cautioned that the resulting scores are not easy to compare, since each rating system covers somewhat different parameters with different weightings. In this regard, it should be noted that GBTool is a generic framework that requires users to establish weights and benchmarks to suit their own regions before ratings are carried out. GBTool scores are therefore also somewhat non-comparable between different regions.

More information can be found in the individual project reports, which are available on the SB05 website.

For SB05

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Summary of Building Performance Rating Scores for SB05

20-Jan

Team / location	Building / project	Building type	Scores for various rating systems							Comments	
			GBTool	Casbee	LEED	Verde	Eco-Effect	GOBAS	Green Star		
Australia, Bovis Lendlease	Assessment of The Bond	Office building							5 stars	Green Star, Australian system, was used	
Brazil	Natura plant	Industrial and office	3.0								
Canada	Queens University ILC	Education	2.4							Assessments included use of GBTool, Green Globes and Athena (for embodied energy).	
	Mountain Equipment Coop	Retail	3.2								
	TOHU cultural building	Culture, Public	2.7								
Chile	Temuco airport	Airport	2.3							GBTool used.	
China, Tsinghua	GOBAS assessments	Gymnasium							1.8	GOBAS C	
		Office building A							4.4	GOBAS A	
		Office building B								6.0	GOBAS A
		Residential								4.0	GOBAS B
China, HK Government, Ove Arup	CEPAS assessments	Commercial building								CEPAS provides ratings at three stages but no scores	
		Laboratory									
China, Shanghai	SRIBS research office	Office	4.3							For Design Phase	
	SRIBS research office	Office	4.2							For Operating Phase	
Germany, Kohler et al	Passive House (one single family, one multi-family, 2 office buildings, one school)		LEGEP was used to show results for various parameters; no overall scores provided.								
Italy	Freire Nursery School	School	1.3							All project were assessed using adapted versions of GBTool.	
	Olympic Village housing	Housing	2.0								
	Environment Park Head Office	Office	2.0								
	Mediapolis	Theme park	2.0								
Japan	Tamagawa Renaissance City	Office	2.4	3.6						All were assessed using CASBEE; all except Aoyamagakuin University Complex were also assessed with GBTool.	
	Marunouchi Kitaguchi	Office	2.8	3.3							
	Kansai Electric Power building	Office	2.8	4.0							
	Keio University South Building	Institutional	3.0	3.6							
	Takenaka Corp. Main Office	Office	2.6	4.9							
	Aeon Chikusa Eco-Store	Retail	2.1	2.8							
	Shiodome Tower	Office	2.7	3.6							
Aoyamagakuin University Complex	University		3.9								
Japan, Takeyama and Nagata	Egg of the Earth	Research centre		4.3						CASBEE was used	
Japan, Takeyama	Earth Designing School House	School		4.1						CASBEE was used	
Japan, PS Company	IDIC building	Multi-purpose building		3.5						CASBEE was used	
Korea	Seoul Central Post Office	Institutional	2.5							All were assessed using adapted version of GBTool.	
	Kolon Institute of Technology	Office	2.6								
	I'Park Samsungdong	Housing	2.4								
Mexico Green Building Council	Torre HSBC Mexico	Office building			39.0					Used LEED 2.1 to make estimate	
Sweden	Holmen housing block, Hammarby	Housing	3.3	3.5			3.6			Approximate scores, based on equal weighting of categories	
Taiwan	Kaohsiung Housing	Housing	1.7							Adapted version of GBTool was used.	
	NCKU Research HQ	Office	1.5								
Spain	CENER Office and labs in Pamplona	Office and labs	2.3	2.1		2.5				Assessment systems used include GBTool, CASBEE and VERDE 1.0	
	Trasluz Office in Madrid	Office	2.4	2.0		2.9					
	San Cristobal apartment building	Housing	2.2	2.1		3.2					
	Apartment building in Barcelona	Housing	2.5	2.5		3.0					
Spain, Pablo La Roche	Sustainable dwelling in Tenerife	House			71.0					Unofficial use of LEED for Homes resulted in Gold score. Codyba was used to assess performance of shading devices	
Switzerland, FIDIC	Project Sustainability Assessment	School	FIDIC's system gives results by category but no scores								
UK, Fionn Stevenson	Optimising the use of unfired clay products in rural housing	House	Multi-format assessment including buildability, durability, thermal performance, RH, air tightness, acoustic performance and POE. Embodied energy calcs were carried out.								
USA	Alfred Arraj Courthouse	Public Building	2.0		34.0					LEED 2.0 was used, Silver rating	