

Adaptation of LEED to Emirates Requirements



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Emirates Green Building Council

Founded 2nd July 2006

Founding Members are:-

| | |
|--|-----------|
| ➤ Developers | 5 |
| ➤ Civil bodies (NGO) | 1 |
| ➤ Energy Companies | 1 |
| ➤ A/E Consultants | 10 |
| ➤ General Contractors | 6 |
| ➤ Landscape Contractors | 1 |
| ➤ Manufacturers & Suppliers | 12 |
| ➤ Facility & Hospitality Management | 3 |
| ➤ Energy Management Services | 1 |
| ➤ Water Consultants | 1 |

Emirates Green Building Council

**17th September 2006, became the 8th member of the
World Green Building Council**



The Vision Statement:-

“Achieving the highest level of Sustainable Built-environment in the United Arab Emirates through the promotion of High-performance Green Buildings and environmentally friendly technologies.”

Emirates GBC Technical & Awards Committee

The first task of the T&A Committee was to develop a building sustainability assessment tool (BSAT) that applies specifically to the UAE.

Phase 1 – Establish our criteria

Decide exactly what we wanted to achieve – the objective

Phase 2 – Evaluation

Evaluate existing tools and the local market and decide either to produce a new BSAT formulated by the EGBC, or to select one of the existing BSAT models and modify it to suit the UAE environment

Phase 3 – Formulate the Basic Outline

To agree and decide on content and priorities.

Phase 4 – Develop the Basic Outline

Expand and add detail on the contents with specific regard for the priorities established in Phase 2. Allocate points to achieve the weighting emphasis agreed in Phase 2

Establishing Our Criteria The First Five

All members of the EGBC were asked to give their own evaluation of what were the five most important points that the BSAT should address.

These were collated and listed to provide input to our choice

Establishing Our Criteria Objectives

- It should be suitable to upgrade over time, allowing the EGBC to begin at a level which is not seen as unachievable, but allows the EGBC to “raise the bar” in years to come.
- It should be performance based.
- It should not present any major change to existing design and construction processes.
- It should take account of existing UAE legislation.
- It should be identifiable as a serious international standard, and thus should be recognizable, internationally, as a validated assessment of a building’s sustainability.
- It should be such as to enable the EGBC to go forward without re-inventing any wheels.

Evaluation Workshop #1

Presentations for a number of existing BSAT's

An evaluation of them against the objectives and their ability to address the "First Five" list

Evaluation

Choice – Modified LEED 2.2:-

- It provides an internationally recognizable label.
- It is performance based
- It is upgradeable.
- It refers to standards that are already widely used in the UAE, and referred to by the local Municipalities.
- By agreement with the USGBC, we can establish processes and infrastructure that duplicates their model, and will be afforded their help in this as we establish ourselves.
- It can be modified to reflect the “wish list”, and, through a process of discussion and agreement with the USGBC, obtain their approval which establishes the international stamp of standard.

Workshop #2

Formulating the Basic Outline

The purpose was to examine the contents of LEED NC 2.2 and decide what would be retained as is, what would be retained and modified, what would be deleted and what would be added.

At the end of the session, sub-committees were formed with the specific remit to examine one section each in detail, and recommend the detailed modifications that should be instigated.

It was also in their remit to provide sufficient reference and back-up to their proposals to achieve the same level of excellence as the existing LEED documents, and demonstrate that the requirements are measurable and verifiable by international recognizable standards

Developing the System Workshop #3

Each sub-committee met and discussed the contents of their section, and reported back to the T&A Committee.

Workshop number 3 was held over two days to work through the recommendations and to decide whether or not to agree the recommendations, & whether further research was required and to recommend the way forward.

Finally, a matrix was devised to enable all to complete with their opinion of how each section should be weighted with respect to other sections.

LEED 2.2 For New Construction

A rating system which evaluates environmental performance from a whole building perspective, providing a definitive standard for what constitutes a “Green Building”

Four Levels of Certification:-

| | |
|------------------|-----------------------|
| Certified | 26 – 32 Points |
| Silver | 33 – 38 Points |
| Gold | 39 – 51 Points |
| Platinum | 52 – 69 points |

LEED 2.2 For New Construction

Divided into 6 categories:-

| | |
|--|------------------|
| Sustainable Sites (SS) | 14 Points |
| Water Efficiency (WE) | 5 Points |
| Energy & Atmosphere (EA) | 17 Points |
| Materials & Resources (MR) | 13 Points |
| Indoor Environment Quality (EQ) | 15 Points |
| Innovation & Design (ID) | 5 Points |

LEED 2.2 For New Construction

Pre-requisites

There are a number of “Pre-requisites” which have to be achieved.

Without the pre-requisite, there can be no certification

| | |
|----|---|
| SS | 1 |
| EA | 3 |
| MR | 1 |
| EQ | 1 |

Note:- none for water because it is not so important in the USA context.

Outcome Comparison

| Section | LEED NC 2.2 | | Emirates Version | |
|---------------------------------|-------------|-----------|------------------|-----------|
| | PR's | Credits | PR's | Credits |
| Sustainable Sites (SS) | 1 | 14 | 1 | 16 |
| Water Efficiency (WE) | 0 | 5 | 2 | 10 |
| Energy & Atmosphere (EA) | 3 | 17 | 3 | 17 |
| Materials & Resources (MR) | 1 | 13 | 1 | 11 |
| Indoor Environment Quality (EQ) | 1 | 15 | 2 | 16 |
| Innovation & Design (ID) | 0 | 5 | 0 | 3 |
| Totals | 6 | 69 | 9 | 73 |

Status

The recommendations of the Technical Committee have been forwarded to the USGBC. The proposed revisions will be incorporated into the new version of LEED which will be launched later this year.

The Emirates version will be available by September this year for use as a sustainable building guide.