Living Building Challenge

Introduction

On July 17, 2018, AESG, a corporate member of EmiratesGBC, delivered a Technical Workshop which gave an overview of the International Living Future Institute's (ILFI) Living Building Challenge (LBC). The workshop was facilitated by LBC ambassadors, Dalia Wagdi and Fawsi Dibis, who elaborated on the seven "Petals" and the 20 Imperatives under them that must be met by any project wishing to purse the LBC.

The Living Building Challenge

The Living Building Challenge is a green building certification program and sustainable design framework that visualizes the ideal for the built environment. It uses the metaphor of a flower because the ideal built environment should function as cleanly and efficiently like nature.

Living Building are regenerative spaces that connect occupants to light, air, food, nature, and community. They are self-sufficient and remain within the resource limits of their site, whilst producing more energy than they use and collecting and treating all water on site. They are designed to create a positive impact on the human and natural systems that interact with them.

To be certified as a Living Building, two core rules must be adhered to:

- All Imperatives assigned to a Typology are mandatory
- Living Building Challenge certification requires actual, rather than anticipated, performance demonstrated over twelve consecutive months

To start the process of certification, at least one member from the project team must be an IFLI member. The ILFI member can then register the project. Throughout Design and Construction, a project team should begin compiling and organizing documentation. Once the operational phase is complete, a project team may submit data for audit. Once all documentation has been submitted, an independent auditor performs a content review of the documentation followed by a project site visit.

After 12 months, there is another final audit, whereby the certification is given. More information can be found on the Living Building Challenge website.

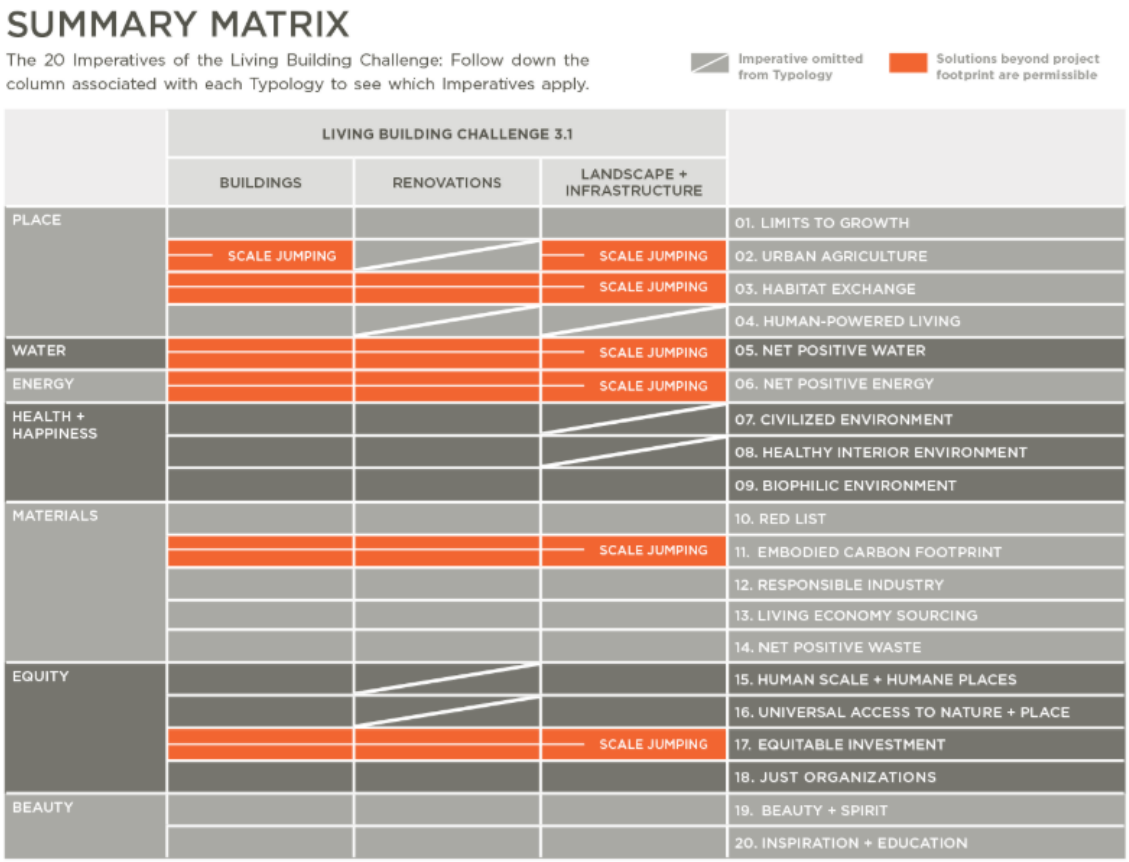

Figure 1 The Seven Petals & 20 Imperatives that should be achieved by a Living Building. To find out more about each imperative, read the Standard here.

Conclusion

The Living Building Challenge represents a change from a paradigm of doing less harm to one in which we view our role as a steward and co-creator of a true Living Future. The Challenge defines the most advanced measure of sustainability in the built environment today and acts to rapidly diminish the gap between current limits and positive solutions. Furthermore, the Living Buildings function as examples for future cities, developers, buildings owners and tenants as teaching tools and sources of inspiration to create a harmonized future.

Defining Nearly Zero Energy Buildings in the UAE

To support future building regulations and the industry in the UAE towards decarbonization, the Emirates Green Building Council has positioned itself as a Net Zero Centre of Excellence. The Net Zero Centre of Excellence exists as a platform for UAE government, academia and the private sector to learn and share knowledge on how to advance the building sector toward net zero buildings by the global timeline of 2050.

For this purpose, Emirates GBC carried out a first of its kind Nearly Zero Energy Buildings study in the region and published a statistical and analytical report that provides an initial definition of Nearly Zero Energy Buildings (nZEB) in the UAE.

As part of the study, EmiratesGBC approached its corporate members, partners and standout projects requesting masked data on best practice low-energy projects. To evaluate the market readiness and feasibility of nZEBs in the UAE, EmiratesGBC also approached building experts to complete a survey on their understanding of the concept of Nearly Zero Energy Buildings.

The main objectives of the study were as follows:

- Review existing definitions of low, zero and positive energy buildings,
- Identify factors and parameters which can help define Nearly Zero Energy Buildings with a particular focus on the UAE and the region at large,
- Recommend a suitable definition for Nearly Zero Energy Buildings in the UAE based on analysis of best practice projects.

Based on the stakeholder analysis, analysis of the market and review of case studies, an initial nZEB definition for residences and offices in the UAE can be considered to be:

A Nearly Zero Energy Building (nZEB) in the UAE can be defined as a highly energy efficient building with a site EUI less than 90 kWh/m^2/year and covers a significant portion of its annual energy use by renewable energy sources produced on-site or offsite.

To read the report, click here.