

LG ELECTRONICS GULF FZE



	39	69
Sustainable Sites	10	14
Water Efficiency	3	5
Energy & Atmosphere	8	17
Materials & Resources	6	13
Indoor Environmental	7	15
Innovation & Design	5	5

 Points Achieved
  Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: Gold, New Construction (NC) V2.2 for Multiple Buildings
Gross Area: 113, 206 sq ft / Office & Warehouse
Neighborhood: Jebel Ali Free Zone, Dubai, UAE
Construction Cost: \$48 / square foot
Completed: May 2010
Date of Certification: April 16, 2011

BENEFITS

- 21.5% Savings on Energy Use
- 31.8% Savings on Potable Water Use
- 3.91% Offset by On-Site Renewable Energy
- 91.7% Diversion from Landfill of Construction Waste
- 30.6% Use of Materials with Recycled Content
- 45.2% Use of Materials Regionally Available

PROJECT BACKGROUND

A new resolution on the implementation of green building specifications and standards in the emirates of Dubai has been issued by H.H. Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of UAE and ruler of Dubai. As per the new resolution, effective on January 2008, all owners of residential and commercial buildings and properties in the emirates of Dubai must comply with the internationally recognized environment friendly specifications to turn Dubai into a healthy city that meets the demands of best practices and benchmarks of pollution-free sustainable development.

Implementing this resolution, Dubai becomes the first city in the Middle East to adopt green building specifications and requirements. The resolution falls in line with Sheikh Mohammed's keen interest in dealing with the current environmental challenges.

In response to this resolution, we are proud to inform that "LG ELECTRONICS GULF FZE" has been awarded with **Prestigious LEED Gold Certification** established by the U.S. Green Building Council and verified by the Green Building Certification Institute (GBCI). It is the 1st Multiple Building in the Middle East to achieve the LEED NC v2.2 Gold Certification.





PROJECT PROFILE

LG ELECTRONICS GULF FZE, JAFZA, Dubai, UAE

THE NEW BUILDING

LG ELECTRONICS GULF FZE is constructed on a 232, 743.20 sqft plot area located at plot no's. B34BS12 & B34BS13 of JAFZA's Industrial area in Dubai, UAE, which is adjacent to different Warehouse facilities, Factories and Offices. LGE's new facility is comprised of G+3 Office block with a gross area of 46, 353 sqft and G+M Warehouse block with a gross area of 66, 853 sqft. The new facility will be housing a total of 415 occupants with 25 expected visitors during peak time on a daily basis.

LG Electronics is a world leader in the field of consumer electronics, mobile communications, and home appliances.

INDOOR ENVIRONMENTAL QUALITY

- Efficient HVAC & Lighting System was installed to Optimize the building's Energy System
- Provides occupants with the ability to control their personal thermal environment
- MERV 13 filters has been selected and installed
- Permanently installed entryway/foot path cleaning system
- Housekeeping rooms, store, janitor's room and other has a deck to deck partition and separate ventilation system
- Reduce the quantity on indoor air contaminants by using low-emitting materials as well as declaring the building as non-smoking

ENERGY EFFICIENCY AND RENEWABLE ENERGY

LG Electronics Gulf FZE utilizes enhanced metering and sophisticated Building Management System to closely monitor building energy use and identify opportunities in real time for adjustments.

The following are the Energy Conservation Measures incorporated in the project:

- Occupancy sensors are installed to all the meeting rooms as well as corridors
- High-performance building envelope insulation
- High- performance glazing
- Efficient lighting fixtures and bulbs
- High efficient AC Units
- High efficient fans, pumps and motors

The project offsets 3.91% of its energy consumption through Solar Hot water Panels as on-site renewable energy source. The solar thermal supply creates enough hot water for all of the building occupant's needs.

OTHER GREEN FEATURES INCLUDE

- More than 50% of the parking spaces are covered with fabric material with more than SRI value of 29
- Native adaptive species are utilized for the vegetation
- Proper stormwater drainage system are in-place to limit disruption of natural hydrology
- 100% of roof area was installed with high albedo materials to maximize energy savings and avoid heat island effect
- Use of building finishes with low voc paints, coatings, adhesives and sealants
- Carpets are CRI certified
- Highly accessible to mass transit such as metro rail
- A Green Educational Program was developed to further increase educational elements of the building and the LEED process

LESSONS LEARNED

- Must be firm on implementing ASHRAE compliance for Ventilation System
- Must finish collecting all the compliance documents right after the construction or during the Building Completion Certification (BCC) period. It is necessary to secure the Green Building certification.

THE TEAM

Owner: LG Electronics Gulf FZE

Design Consultant: ORION Engineering Consultants

Contractor: GS Engineering & Construction

Green Building Consultant: Middle East Centre for Sustainable Development (MECSO), Dubai, UAE

Chief Technical Officer: Thom Bohlen, Architect, LEED AP

LEED AP: Ms. Charity Pena & Mr. Pushkar Dwivedi

Commissioning Authority: Pacific Control Systems

Photograph Courtesy of: LG Electronics Gulf FZE