



MODERN EMIRATES HEAVY CRANE LLC



	40	69
Sustainable Sites	8	14
Water Efficiency	4	5
Energy & Atmosphere	9	17
Materials & Resources	4	13
Indoor Environmental	11	15
Innovation & Design	4	5

Points Achieved Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: Gold, New Construction (NC) V2.2
Square Feet: 8,194 sqft (Office only) / Office & Warehouse
Neighborhood: Technopark, Dubai, UAE
Construction Cost: \$ 116/ square foot
Completed: May 2010
Date of Certification: August 19, 2010

BENEFITS

- 26.1% Less Energy Use
- 53.4% Less Potable Water Use
- 20.8% Regional Materials Use

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 Makhtoum, 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 "MODERN EMIRATES HEAVY CRANE" 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 first in Techno Park and third project in the UAE to achieve the LEED NC 2.2 Gold Certification.





PROJECT PROFILE

MODERN ENIRATES HEAVY CRANE, TECHNOPARK, Dubai, UAE

THE NEW BUILDING

The project is office and warehouse building, which achieved "Gold LEED Certification" for regularly occupied office area of 8,194 sqft encompasses a total LEED boundary of 499,520.80 sqft in Techno Park, Jebel Ali, Dubai.

Modern Emirates Heavy Cranes LLC (MEHC) is operating in Techno Park, Dubai since July 1, 2007 as Trading and Leasing of construction equipments. MEHC is a supplier of Tower Cranes and Passenger Hoists in the Middle East region.

The new building is intended to construct and use as environmentally friendly office facility.

INDOOR ENVIRONMENTAL QUALITY

To facilitate quality IEQ, **MEHC** installed automatic electric timers for automatic shut off of lighting after office hours and huge windows in office spaces for daylight. Thermostats and operable windows has been provided for comfort controls and MERV 13 filter in AC duct for better indoor air quality. The facility uses more natural ventilation and building finish materials with low emission of volatile organic compounds (VOC), for adhesives and caulking, paints and coatings, and carpets - CRI Green Label Plus Program certified. This attention to energy use at the design stage reduced the consumption and associated financial costs, plus the related carbon emissions.

ENERGY EFFICIENCY AND RENEWABLE ENERGY

The main goal of the project for energy efficiency is to save at least 21% of energy from the baseline.

The following are the key elements in MEHC's strategy to help combat climate change:

- Shall comply with ASHRAE 90.1-2004 building energy efficiency standards.
- Lighting systems offer cost effective energy savings potential, and lighting fixtures and / or controls shall be selected to exceed ASHRAE 90.1-2004 minimum efficiency requirements by 10% or greater.
- High efficient HVAC equipment offers cost effective energy savings, and HVAC equipment selected that exceeds ASHRAE 90.1-2004 minimum efficiency requirements by 10% or greater.
- High performance glazing constructions
- Utilization of the renewable resources like Solar Hot Water System for domestic hot water requirements.

About 2.56% of the project's energy cost is being offset by renewable energy generated on-site – Solar Hot Water Systems.

GREEN CLEANING

The MEHC incorporates a comprehensive Green Cleaning Program, which emphasis on training and usage of Green Seal's GS-37 standard products. The Green Cleaning Program incorporate the use of green cleaning chemicals, cleaning processes that benefit public health and the environment, and purchasing environmentally preferable janitorial products. This is to reduce exposure of building occupants and maintenance personnel to potentially hazardous chemical contaminants that adversely affect air quality and health of the occupants.

OTHERS GREEN FEATURES INCLUDE

MEHC earn an exemplary performance in water efficiency credit by installing water efficient fixtures in the facility. The project has provided vegetated open space to exceed local zoning requirements by 25% , which meets the exemplary performance requirement and employs native trees which requires less irrigation.

LESSONS LEARNED

- Timely discussions with stakeholders to procure materials as per LEED standards are necessary to achieve the certification.
- Inform the stakeholders about exemplary credits and formulate strategies to achieve them in the earlier stage of the project.
- The civil contractor is responsible for the photographic documentation of project progress and credit requirements
- Inform and educate the civil contractor on the recycle / reuse strategies of construction waste management

THE TEAM

Owner: Modern Emirates Heavy Crane LLC

Design Consultant: Al Hilal Engineering Consultants

Civil Contractor: Fabtech Contracting LLC

MEP Contractor: Unibras Electromechanical LLC

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

LEED AP: Gurjeet Kaur & Pushkar Dwivedi

Commissioning Authority: Pacific Control Systems (**PCS**)

Photograph Courtesy of: MECSD & Fabtech