

AKSA POWER GENERATION FZE



	41	69
Sustainable Sites	9	14
Water Efficiency	4	5
Energy & Atmosphere	6	17
Materials & Resources	6	13
Indoor Environmental	11	15
Innovation & Design	5	5

Points Achieved
 Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: Gold, New Construction (NC) V2.2
Square Feet: 33,595 sq ft / Office & Warehouse
Neighborhood: Jebel Ali Free Zone, Dubai, UAE
Construction Cost: \$60.72 / square foot
Completed: November 2010
Date of Certification: April 30, 2011

BENEFITS

- 21.4% Savings on Energy Use
- 46.9% Savings on Potable Water Use
- 36.5% Materials Use with Recycled Content

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 "AKSA POWER GENERATION 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 ninth (9th) project in the UAE to achieve the LEED NC 2.2 Gold Certification.





PROJECT PROFILE

AKSA POWER GENERATION FZE, JAFZA Dubai, UAE

THE NEW BUILDING

Aksa Power Generation FZE is a new office and warehouse building in Jebel Ali Free Zone, Dubai designed and built to bring the company working standards on the higher professional level. The building is divided in two parts that are physically connected; warehouse with an area of approximately 26,931.3 sqft and office with two floors, with an area of approximately 6,576.75 sqft.

The Aksa Power Generation is a global players in design, manufacturing and installation of diesel generator sets. Caters to the power requirement of GCC and Near Africa.

INDOOR ENVIRONMENTAL QUALITY

To provide a comfortable and healthy environment, Aksa Power Generation incorporated the following:

- Fresh air complying to ASHRAE 62.1-2004
- Developed and implemented a Construction Indoor Air Quality (IAQ) Management Plan in reference to SMACNA guidelines
- Installed carbon dioxide (CO₂) sensors
- Temperature, humidity and lighting controllability are available for all shared occupant spaces
- Use of building finish materials with low emission of volatile organic compounds (VOC) for adhesives, sealants, paints and coatings
- The office and warehouse windows are design to harvest daylight, wherein glare control devices are provided to ensure daylight effectiveness of all regularly occupied areas

ENERGY EFFICIENCY

Aksa achieved an energy cost savings of 21.4% using the ASHRAE 90.1-2004 Appendix G methodology.

Energy efficiency measures includes:

- High efficiency HVAC equipment
- Interior and exterior shading
- Variable air volume supply
- Automated sensors
- Solar external lighting

MATERIALS & RESOURCES

- 80.46% of on-site generated construction waste diverted from landfill
- 36.50% of materials use with recyclable content
- 26.65% of regional materials use
- Provide appropriately sized dedicated areas for the collection and storage of recycling materials

OTHER GREEN FEATURES INCLUDE

- 100% of non-roof hardscape paved with high-albedo materials
- 86.84% of the roofing materials used meet the SRI requirements
- Developed and implemented stormwater management plan
- Provides preferred parking for low-emitting and fuel-efficient vehicle

LESSONS LEARNED

- Teamwork and dedication certainly paved the way for it to achieve the certification
- Early decision and implementation of the LEED process is required for the success of a sustainable project
- Proper documentation and delegation of work is needed

THE TEAM

Owner: Aksa Power Generation FZE

Design Consultant: Architectural Corner

Contractor: City Diamond Contracting

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

Chief Technical Officer: Thom Bohlen, Architect, LEED AP

LEED AP: Mr. Ashraf Ali Khan & Ms. Joylin Mangulab

Commissioning Authority: Pacific Control Systems

Photograph Courtesy of: Aksa & MECSD