

PACIFIC CONTROLS CLOUD SERVICES FZE AT PLOT NO TP030401, DUBAI, UAE



FAST FACTS

Project: Pacific Controls Cloud Services FZE, Plot No TP030401, Dubai, UAE

LEED Certification Level: GOLD, New Construction (NC) 2.2

Gross Floor Area: 78,266 sq ft / Data Center Building

Neighborhood: Techno Park, UAE

Completed: July 2014

Date of Certification: 23 March 2015

BENEFITS

- 21.46 % Overall Savings on Energy Use
- 54.40 % Savings on Irrigation Water Use by Landscaping
- 52.62 % Savings on Potable Water Use by Water Fixtures
- 18.06 % Materials Used with Recycled Content
- 13.70 % Regional Materials Use
- 63.17 % Diverted on-site generated construction waste from landfill

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.

In response to this resolution, we are proud to inform that “**Pacific Controls Cloud Services**” has been awarded with Prestigious **LEED GOLD Certification** established by the U.S. Green Building Council(USGBC)

Pacific Controls Cloud Services (PCCS) in Dubai is the largest Green Data Center campus in the Middle East that is Uptime Tier III Design as well as Facility certified, awarded with LEED Gold Certified by the USGBC and also ISO27001 certified. PCCS provides a state of the art, secure facility for hosting mission critical applications that delivers high availability and business continuity, while adhering to tough environmental standards.

LEED POINT SUMMARY

41 out of 69

41 Points Achieved 69 Points Available

Sustainable Sites	10	14
Water Efficiency	4	5
Energy & Atmosphere	7	17
Materials & Resources	5	13
Indoor Environmental	10	15
Innovation & Design	5	5



PACIFIC CONTROLS CLOUD SERVICES (PCCS)

SUSTAINABLE SITES & WATER EFFICIENCY

The project team sought to encourage sustainability. The following are strategies to support it:

- Provides preferred parking for carpool and low-emitting and fuel-efficient vehicles on-site
- High SRI value for Roofing material
- 100% of the outdoor area covered with light color pavers
- Installed water efficient landscaping
- Installed efficient water fixtures which consume less amount of potable water.
- Installed storm water network

ENERGY EFFICIENCY

Project is designed as per ASHRAE Std. 90.1-2004 and following are the Energy Efficiency Measures incorporated in the project:

- Highly insulated mass Wall, Glazing and Roof
- World class automated, intelligent and predictive energy management platform
- Efficient lighting and incorporating motion sensors and timer control for the internal and external lighting
- Efficient HVAC systems – Efficient Air Cooled Chillers and VAV driven AHUs, PAHUs
- Includes computational fluid dynamics (CFD) and thermal imaging to detect hotspots.
- The unique iDCMS calculates the efficiency of the Data Center in terms of Green Grid's power usage efficiency (PUE) and data centre infrastructure efficiency (DCiE) metrics to benchmark it against industry standards.

MATERIAL AND RESOURCES

- 62.17% (by weight) of the construction waste diverted from landfill.
- 18.06% of construction material used has recycled content.
- 13.7% of construction material are regional materials – means those materials which are within 500miles radius from the PCCS Site
- Provides appropriately sized dedicated areas for the collection and storage of recycling materials

INDOOR ENVIRONMENTAL QUALITY

- The IAQ performance complies with the minimum requirements of ASHRAE Std. 62.1-2004,
- Installed air flow monitoring device for each mechanical ventilation to monitor the fresh air
- Developed and implemented a Construction Indoor Air Quality (IAQ) Management Plan in reference to SMACNA guidelines
- Use of building finishes materials with low emission of VOC for adhesives, sealants, paints and coatings
- With a continuous surveillance of the site, the staff will be monitoring the alerts and inputs from the iDCMS at all times.
- Project space is in compliance with ASHRAE Standard 55-2004.
- Oxygen, Hydrogen, nitrogen dioxide and dust levels monitored in real time.
- All equipment is proactively monitored around the clock to meet the requirements of mission-critical business applications

OTHER GREEN FEATURES INCLUDES

- Earned an exemplary performance in with Water Efficiency, Heat Island Effect, and Maximize Open Space.
- Provided Green Cleaning Program

PACIFIC CONTROLS CLOUD SERVICES (PCCS)

THE TEAM

Owner: **Pacific Controls**

Design Consultant: **Orbit Engineering Consultants**

Contractor: **Condor Building Contracting**

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

Commissioning Authority: **CML International**

LEED APs: **Mr. Thom Bohlen, Mr. Loveleen Raval and Ms. Mary rose Anlacan**