EmiratesGBC 2016
AWARDS

Celebrating Green Building Achievements, Rewarding Excellence

Wednesday 18 May 2016
Al Marooj Rotana, Dubai

EmiratesGBC
مجلس الامارات للابنية الخضراء
Emirates Green Building Council

10th Anniversary

With the support and presence of World Green Building Council

WORLD GREEN BUILDING COUNCIL

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Welcome to the EmiratesGBC 2016 Awards

Since its 2013 launch, the EmiratesGBC Awards have been honoring organizations that demonstrate clear implementation of sustainable design, construction and/or operation of building structures. The Awards Program's ultimate goal is to help establish a regional model for the built environment that is world-class and replicable.

For the fourth year, the EmiratesGBC Awards have recognized the achievements of talented teams and leaders for their commitment to green buildings products, materials, systems, research and education.

EmiratesGBC also recognizes the creativity and excellence of the next generation of green building professionals with one award category dedicated to UAE students only.

Winning and short-listed organizations have been acknowledged and awarded during the 2016 Awards Ceremony and Gala Dinner that took place on Wednesday 18 May 2016 at the Al Marooj Rotana Hotel in Dubai. A sincere thank you to all who attended and supported the event and made the 2016 EmiratesGBC Awards a success one more time.

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From left to right: Stephen Smith, Brookfield Mutiplex, with Saeed Al Abbar, EmiratesGBC

From left to right: Simone El Henoud, Dow, with Saeed Al Abbar, EmiratesGBC

2016 Awards Official Auditor

KPMG

Opening of the Awards Ceremony

The support from the World Green Building Council and the active participation of colleagues from other GBCs in the MENA Region contributed to the success of this year's Annual EmiratesGBC Awards.

Their expertise as professionals from the building industry and their extensive networks provided a deeper reach to organizations beyond the UAE borders and exposure of regional projects and achievements that are showcasing sustainability best practices in the region.

Left: Mr. Saeed Al Abbar, EmiratesGBC Chairman

Right: Ms. Terri Wills, CEO of World GBC

Opening Words

Saeed Al Abbar, EmiratesGBC Chairman, kicked off the 2016 Awards Ceremony and Gala Dinner by thanking all participants, applicants, judges and auditors for their commitment towards greening the UAE and the region's built environment. This fourth Awards cycle has seen the number and quality of applications increase, a strong sign of the dedication of all projects, materials, research and training programs geared towards urban sustainability.

His remarks were followed by Terri Wills, CEO of the World Green Building Council, who commended the efforts and achievements of the finalists. She reminded the audience of the importance of such award programs regionally and globally to share innovations and stimulate a healthy competition that can help contribute to the authorities' efforts to tackle climate change.

The 2016 Review and Judging Process

Processes and Progress

In line with the first three Annual EmiratesGBC Awards programs in 2013, 2014 and 2015, the Official Judges were chosen based on their extensive experience in the fields of sustainability and green buildings.

Their expertise from the private sector, academia and other Green Building Councils allowed them to review the numerous applications objectively and to highlight organizations and individuals that actively contribute to furthering the green building movement, not only in the UAE, but also regionally.

Based on the processes in place and the Judges' feedback over the past years, it is with pride that the Council sees the number of applications growing each year, and to witness an improvement in the quality of submissions. The EmiratesGBC Awards have become a key platform for the industry to recognize green achievements, products, projects and research that are supporting the national vision on sustainability.

Official Judges of the EmiratesGBC 2016 Awards.

Transparency and Lessons Learned

As part of the Awards' internal processes and in order to guarantee strict transparency and confidentiality, applicants and official judges were provided with dedicated guidelines stating the 2016 Terms and Conditions and information to be added into their submissions.

These guidelines have been prepared and approved by the EmiratesGBC Management Committee, and then reviewed and validated by KPMG as external observer and auditor. Each year, they have been updated to take into consideration all feedback received from the previous cycles' applicants and judges. Categories are also reviewed and when needed refined to remain relevant to the green building industry.

This continuous process allows the Council to build stronger Awards which reflect the progress and industry needs of the region.

To guarantee absolute confidentiality, from the Awards launch until results were shared during the Awards Ceremony an Gala Dinner, all parties involved in the 2016 Awards Program signed Non-Disclosure Agreements.

Identification of Winners and Short-listed Organizations

The identification of short-listed and winning organizations is based on the scores and comments received from the official judges. At the end of the official scoring phase, results are compiled and presented to the EmiratesGBC Awards Taskforce and KPMG for final review, recommendations and validation.

This external third-party review ensures that all steps are respected as per the guidelines, terms and conditions, and that the short-listed and winning projects receive the recognition they deserve.

Meet the 2016 Awards Official Judges

Emirates Green Building Council Board Members

Dr. Rob Cooke, Board Member of the of EmiratesGBC; Associate Sustainability Consultant, Buro Happold

Sarfraz Dairkee, Secretary of EmiratesGBC Board of Directors; General Manager Corporate Dev. & Engineering, M.A.H.Y. Khoory & Co. LLC

Abeer Manneh, Urban Designer at Woods Bagot and representative of the Board of EmiratesGBC

Dr. Michael Schmidt, Board Member of the of EmiratesGBC; Head of Development, Construction Chemicals Division, ORA: Middle East, West Asia, CIS & Africa, BASF

Representatives of the MENA Network Green Building Councils

Walid El Baba, LebanonGBC Board member

Abdallah Bdeir, MENA GBC Regional Network Chair

Academic Partners

Prof. Bassam Abdel-Karim Abu-Hijleh, Dean and Atkins Chair Head of the Sustainability MSc & PhD Programmes, Faculty of Engineering and IT, The British University in Dubai (BUiD)

Dr. Ghalib Y. Kahwaji, Professor and Head of the Mechanical Engineering Department, Rochester Institute of Technology (RIT), Dubai

EmiratesGBC Taskforce Members

Habiba Al Marashi, Treasurer

Lora Shrake, Operations Director

Marie-Helene Westholm-Knebel, Senior Technical Officer

Networking Reception prior to the Gala Dinner

Green Facility Management Organization of the Year

The Winner

Enova Facilities Management Services

First Energy Savings Performance Contracts in the region for JAFZA and DEWA buildings.

Award presented by Sarfraz Dairkee, EmiratesGBC Board Member

Being the first Facilities Management Company to be ESCO accredited in Dubai, Enova shows the added value of integrated Energy and Facilities Management. More than a technology, this approach provides a comprehensive solution, relying on people, processes and tools to achieve and guarantee significant energy savings within a robust business model.

The validity of this approach was demonstrated in 2015 with Enova signing two of the most significant ESCO contracts signed in Dubai, respectively for the retrofit of 7 DEWA buildings and 157 JAFZA buildings. Enova is responsible today for the delivery of 60% of the energy savings that Etihad ESCO has committed to.

The contract of JAFZA alone is the largest energy retrofit project in the Middle East. In this world's first third-party Shari'a compliant Energy Savings Performance Contract, Enova guarantees annual savings of 26 GWh of electricity and 200 million IG of water, resulting in AED 22 million savings per annum.

The Short-Listed Projects

Green Facility Management Organization of the Year

Emaar Community Management

Ensuring sustainable living across 35,000 homes

Implementation of multiple sustainability Initiatives with a focus on implementing paperless billing via our Green Bill campaign and protecting community water bodies as well as other connected water bodies through our 'Say No' to car wash-ing initiative. Initiatives covering 35,000 homes and engaging 100,000+ residents.

BK Gulf Facilities Management

BK Gulf Facilities Management Client Projects

Total integrated FM services focusing on safety, sustainability and reliability centered maintenance since 1998. Service delivery is centered upon the sustainability triple bottom line concept and supported by dedicated teams delivering a range of services including Health, Safety, Environment and Sustainability initiatives.

Green Training Initiative of the Year

The Winner

Dubai Electricity & Water Authority

Carbon Ambassador Programme 2015/16

Award presented by Habiba Al Marashi, EmiratesGBC Co-Founder and Board Member

With consideration to the numerous activities linked to Sustainable Development in the UAE, in line with the Green Economy for Sustainable Development policy launched by HH Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, the UAE Vision 2021, and in line with the Dubai Integrated Energy Strategy 2030 (DIES2030), the Carbon Ambassador Programme aims to involve contenders in a voluntary collaboration within the UAE with activities to streamline a culture of sustainable development, and provide free training opportunities and capacity building in fostering tomorrow's workforce of leaders in green building practices and policies.

THE CARBON AMBASSADOR PROGRAMME
BY DUBAI ELECTRICITY & WATER AUTHORITY

The Carbon Ambassador Programme was developed addressing the resulting need for a work force with skills in the areas of sustainable built environment. It is a collaborative platform to capitalize UAE's pool of educated youth.

This is the first of its kind in the region where a group of environmentally passionate contenders are being trained as future green leaders of the country.

The Short-Listed Projects

Green Training Initiative of the Year

Peopla

University Students Program

Unlike the current professionals who are used to legacy practices, the new generations in the universities should be acquainted with sustainability and green building practices in order to ensure sustainable development for generations to come. Unfortunately, university students are less likely to have enough financial resources to attend most of the high quality courses available in the market.

Accordingly, Peopla green institute developed their program to overcome this obstacle and provide a LEED Green Associate course with affordable fees without compromising on the quality. The initiative has not only helped in spreading knowledge, it has also encouraged some universities to consider adding the LEED GA certificate as part of their architecture college syllabus.

Green Building Research Project of the Year

The Winner

RAK Research and Innovation Center for the Solar Calorimetric Research Facility

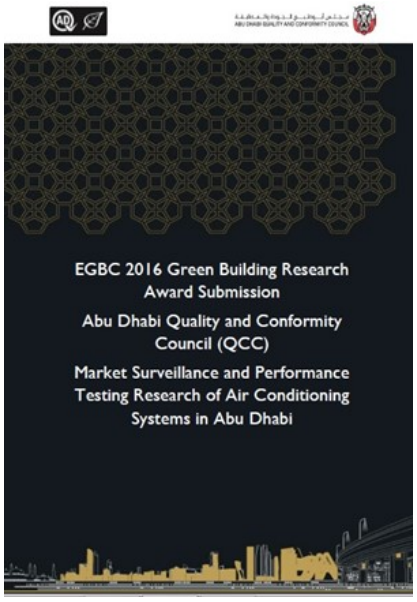
Award presented by Yasmeen Al Rashedi, Abu Dhabi Urban Planning Council

Solar Calorimetric is MENA region's first test facility which aims:

- To identify procedures for quickly and easily modeling a wide range of building configurations using advance software simulation (TRNSYS) and to further investigate using practical outdoor built comparison by performing real outdoor tests.
- To analyze the effect of solar insulating materials on the energy consumption and heat profile of buildings compared to conventional construction.
- To determine the energy savings of buildings with solar insulated and reflective materials in real conditions and study the feasibility of solar coating in new buildings and retrofits.

The Short-Listed Projects

Green Building Research Project of the Year



Abu Dhabi Quality and Conformity Council Product Conformity Scheme Services Division

Market Surveillance and Performance Testing Research of Air Conditioning Systems in Abu Dhabi

Market research was performed on point-of-sale energy efficiency labeling of Air Conditioning units in Abu Dhabi retail/wholesale, including analysis of the relationship between AC capacity, efficiency and price. Independent accredited third-party testing of AC energy efficiency was then carried out on market-sourced window and split-AC units to verify the level of compliance with labeling claims.

This research addresses the effectiveness of the Emirates AC energy efficiency labeling scheme in improving product minimum energy performance standards.

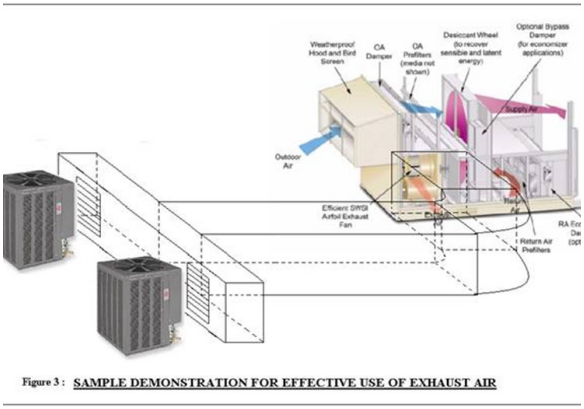


Figure 3 : SAMPLE DEMONSTRATION FOR EFFECTIVE USE OF EXHAUST AIR

Dubai Silicon Oasis Authority

Effective Utilization of FAHU Exhaust Air for Enhancing the Efficiency of AC system

Comparatively cold exhaust air in facilities can be further utilized by supplying it directly to the air cooled condensing units. When the condenser coil gets air at a lower temperature than the ambient, the total heat rejection into the atmosphere increases thereby increasing the cooling capacity of the AC system while reducing the power required to achieve this cooling capacity.

Green Building Material / Product of the Year

The Winner

VRV IV, by Daikin

Award presented by Faisal Rashid, Dubai Supreme Council of Energy

Using variable speed inverter technology, variable refrigerant flow and variable refrigerant temperature to adapt power consumption to weather and load variations and achieve high part load efficiency, the system exceeds ASHRAE 90.1 and complies with ESTIDAMA and ESMA regulations.

It is designed as fully integrated HVAC Building Solution with individual zone controls, and operated and controlled from a mini Building Management System.

The Short-Listed Projects

Green Building Material / Product of the Year

Re-Con Zerø, by Mapei Construction Chemicals LLC

Re-Con Zerø is the innovative product for the sustainable recovery of returned concrete.

It makes the most of returned concrete by transforming it into granular material that can be re-used as aggregate in concrete.

It offers many advantages from an environmental, social & economical point of view & represents an interesting progress in the field of concrete sustainability.

Siemens Demand Flow, by Siemens LLC - Building Technologies Division

Siemens Demand Flow™ is a variable pressure curve technology that optimizes central chilled water systems to reduce a plant's total energy consumption by 20%-50%

Demand Flow offers a holistic approach for optimizing an entire chilled water system, including potential air-side savings. It simplifies plant operations without sacrificing occupant comfort in favor of energy savings, increases the deliverable tonnage of the chilled water plant, accurately maintains optimal differential system pressure.

Green Residential Building of the Year

The Winner

The Sustainable City

Award presented by Saeed Al Abbar, EmiratesGBC Chairman

The Sustainable City, by Diamond Developers, is a practical Implementation of social, economic, and environmental sustainability, making it the first Net Zero residential developer and service community in Dubai.

It is also the first Net Zero energy development in the region, with ten mega watt peak solar installation, and 100% water and waste recycling facilities.

The Sustainable City provides a unique and healthy lifestyle that blends smoothly with nature, and embodies the true meaning of sustainable living through stakeholder engagement, innovative design and future monitoring to sustain itself.

Green School of the Year

The Winner

Dohaland Phase 1C Qatar Academy Msheireb (Building A01), Qatar

Award presented by Abdalla Al Karam, Knowledge and Human Development Authority

The Qatar Academy Msheireb, project led by Brookfield Multiplex, is a primary school and child care centre that serves children 1st through 5th grades and spans a total Gross Floor Area of 12,754 m2.

The childcare centre is to provide care for 68 children and the primary school is to serve 450 students.

The Qatar Academy Msheireb was completed and handed over to the client in time for the September 2015 semester with the school now operational for over seven months.

The School was constructed to achieve LEED Gold in accordance with the LEED for Schools Rating System (2009).

Green Hotel of the Year

The Winner

Alila Jabal Akhdar Resort, Oman

Award presented by Solaiman Al Rifai, Dubai Tourism

The Jabal Al Akhdar Resort, managed by the Oman Tourism Development Company (Omran), was designed to perfectly blend into the natural ecosystem by heavily emphasizing on local materials, architecture and layout.

Developed on 300,000 m2 land located at 2,000 m above sea level with breath-taking cliff views. The resort boasts 86 keys with state of the art facilities that promises to engage a diverse range of guests throughout their stay.

Alila Jabal Akhdar is a perfect getaway spot due to its secluded location, quite surrounding and vast natural landscape.

The property achieved Leadership in Energy and Environmental Design (LEED) Silver certification.

The Short-Listed Projects

Green Hotel of the Year

Sofitel The Palm, Dubai

The property has Green Globe Certification, ISO 14001 Environmental Certification and its beach is Blue Flag certified.

The resort has achieved a saving of almost 1,000,000 kWh of energy through the use of smart technology and the replacement of 85% of halogen lamps with LED lamps. The implementation of an effective recycling programme has generated a saving with environmental equivalent of 4,403 trees, 1,087,800 kWh of energy, 1,813,000 gallons of water, 15,540 pounds of air emissions and 231,460 litres of oil. The waste diversion from the landfill is almost 30% with hazardous waste being disposed through a government approved agency.

Hilton Garden Inn Mall of the Emirates, Dubai

The project was committed to the sustainability agenda throughout the life cycle of the asset. Since inception as mandated by Majid Al Futtaim Properties, a LEED gold design and construction plan was developed and monitored through to completion.

Following strict sustainability guidelines the hotel has been developed implementing facilities that reduce its environmental impact whilst the hotel is in operation. It is estimated that sustainability initiatives will reduce harmful CO2 emissions by 665 tons per year.

In order to achieve an 18 month fast track sustainable delivery programme and constrained site conditions approximately 70% of the project was manufactured off site in a controlled environment.

Green Commercial Building of the Year

The Winner

City Center Me'aisem

Award presented by Terri Wills, WorldGBC

City Center Me'aisem, by Majid Al Futtaim, is a one level Community Mall of 23,500 sqm GLA, with the following key achievements, amongst others:

- City Centre Me'aisem was designed to reduce the annual energy cost by greater than 30% over the ASHRAE 90.1 Baseline building.
- Up to 12% of the annual electricity requirement is estimated to be met through the on-site Photovoltaic System installed on the carport roofs.
- The mall's landscape irrigation is 100% supplied via an onsite blackwater treatment system called "Bionest".
- It was built with 83% of construction waste material that was diverted from landfill for recycling.
- A 56% reduction is estimated in the mall's annual water consumption by installing water efficient flush and flow fixtures over LEED baseline.
- City Centre Me'aisem also includes a reflective roofing membrane that minimizes solar gain as well as energy-efficient LEED-compliant lights and water saving taps.
- Through integrated design the building was able to achieve water savings in excess of 45% above the LEED baseline and savings in energy of over 30%

The building was awarded LEED Platinum on 17th November 2015 by the USGBC.

The Short-Listed Projects

Green Commercial Building of the Year

DAFZA Square, Dubai

DAFZA has set up a hi-tech and modern facility for their food court, offices, and mix used areas. The new building is composed of two towers B+G+M+4 and B+G+M+7 with approximate total built up area of 32,900m², and is located in the heart of DAFZA, close to Dubai Airport.

DAFZA Square has achieved "LEED Gold" from USGBC, and is contributing to the UAE Vision 2021 "Sustainable Environment and Infrastructure" and Dubai Integrated Energy Strategy 2030. DAFZA Square is being cooled from "Central District Cooling Plant" that has a unique energy optimization system called "Demand Flow" which further optimizes the consumption of the energy.

Siemens Middle East HQ Building Masdar City, Abu Dhabi

The Siemens Middle East Headquarters at Masdar City which was inaugurated in January 2014, is ESTIDAMA certified with a 4 Pearls rating and is the first LEED Platinum-certified office building in Abu Dhabi.

Sustainable materials used accompanied by its design also make it "one of the greenest buildings in the region". Siemens has also provided its own sustainable technology within the building, which includes an advanced Building Management System (BMS), as well as CCTV, Fire and Lighting Management and Control System.








EmiratesGBC 2016 Awards


Al Murooj
Rotana


#EGBCAwards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Meet the 2016 Dr. Owainati Student Excellence Award Official Judges

Tushant Suri,

Brookfield Multiplex

Simone El Henoud,

Dow

Sanjeev Coelho,

HOK

Jeffrey Willis, Arup

Academic Partnerships

For the fourth year, the Dr. Owainati Student Excellence Award has rewarded the work of a UAE -registered student in the field of green building, design and engineering.

During his address, Dr. Sadek Owainati, one of the Co-Founders of Emirates Green Building Council, gave an overview of the journey taken by the Council as a catalyst for technical knowledge and capacity building. He reminded the event participants of the need for students to be supported in their academic research, as a way to advance knowledge on green buildings and pave the way to a sustainable future.

Dr. Sadek Owainati

Throughout the years, EmiratesGBC has developed strong partnerships with local universities. This year and for the first time we facilitated a Student Forum allowing EmiratesGBC members to discuss with UAE students the best ways to develop their skills, prepare for their final research papers and position themselves strategically as future professionals of the green building industry. The Forum also highlighted and encouraged students to apply for the Dr. Owainati Student Excellence Award.

Dr. Owainati Student Excellence Award

The Winner

Maria Gabriela Soto Conde, "*Evaluation of available building integrated photovoltaic (BIPV) systems and their impact when used in commercial buildings in the United Arab Emirates*", Heriot Watt University

Paper's Executive Summary:

"The utilization of building integrated photovoltaic (BIPV) systems represents an opportunity to turn building envelopes to elements that harness solar energy. The performance of BIPV elements is linked to external conditions such as location, inclination and thermal conditions. Cell temperature is a critical factor that affects not only the electrical performance of photovoltaics but when applied onto a building, can also affect its internal ambient temperature and comfort. These effects need to be addressed, particularly in hot climates.

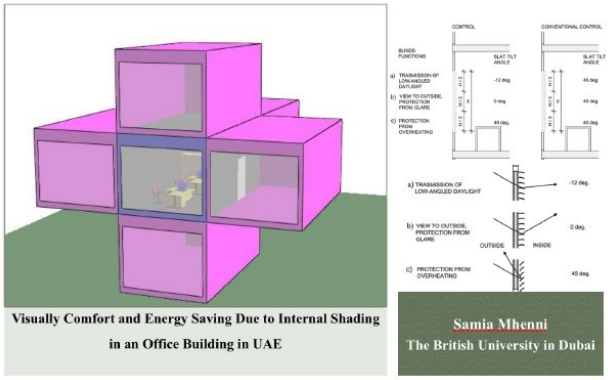
This paper discusses the impact of the implementation of BIPV systems on the cooling load of a typical commercial building located in the United Arab Emirates, where cooling systems tend to be utilized constantly throughout the year. It also analyzes the potential of BIPV systems to perform as per their technical specifications as set at standard test conditions (STC) by studying the thermal behavior of BIPV systems as applied in local thermal conditions.

The BIPV systems analyzed under UAE conditions resulted in an increase on the building's cooling load and a decrease in the systems' electrical output, suggesting the need of implementing techniques to control the systems' temperature or the modification of systems to be more adequate for utilization in the region."

The Short-Listed Papers

Dr. Owainati Student Excellence Award

Samia Mhenni, "*Visual Comfort and Energy Saving Due to Internal Shading in an Office Building in UAE*", The British University in Dubai

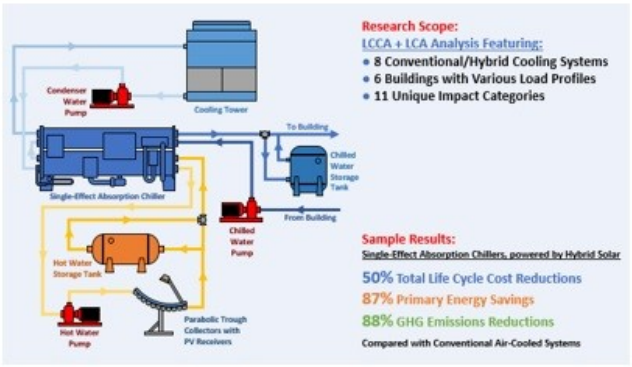


The research has been conducted to assess solutions to optimize daylight utilization and minimize energy consumption in office buildings in the UAE, the proposed solutions can be implemented on new and existing buildings.

A total of 13 solutions of internal three automated blind systems, solar control film coating on the window glass and combination of both in conjunction with light dimming profile were tested for three orientations on a typical office module in Dubai.

Computer modelling using IES-VE tool was used for 363 simulations to analyze the daylight illuminance, glare impact, lighting energy, cooling load and total energy consumption.

Tarek M. Sobh, "*Life Cycle Energy, Environmental Impact, and Cost Analysis of Eight Conventional/ Hybrid Cooling Systems in the United Arab Emirates*" Rochester Institute of Technology – Dubai



Life cycle cost analysis and life cycle energy and environmental impact assessment have been performed on eight different system configurations featuring conventional, solar-assisted, standalone solar -thermal, and standalone solar-hybrid chiller systems. Each of these systems is implemented in six different buildings with various load profiles, including a government building, an industrial factory, a hospital, a university campus, a shopping mall, and a mosque.

In terms of total life cycle costs, solar-hybrid assisted systems achieved the highest cost reductions with an average of 54% compared to conventional air-cooled systems.

In terms of energy and environmental impacts, standalone solar-hybrid systems achieved the best results with an average of 87% savings in primary energy, and 88% reductions in greenhouse gas emissions compared to air-cooled systems.

Striking a pose after the Gala Dinner

The growing success of the past four Annual EmiratesGBC Awards programs has inspired the rebranding of the 5th Annual Awards cycle.

2017 will see the Awards program rebranded as the **MENA Green Building Awards**, supported by World Green Building Council and several of the regional Green Building Councils, giving greater reach and exposure of the Awards across the region.

2017 MENA Green Building AWARDS

GBC Partners of the 2017 MENA Green Building Awards

LGBC lebanon green building council مجلس لبنان للأبنية الخضراء

JORDAN GBC المجلس الأردني للأبنية الخضراء Jordan Green Building Council

The categories for the 2017 MENA Green Building Awards and the modalities to apply will soon be shared on the EmiratesGBC website and on social media.
Sponsorship opportunities are also open.

Keep yourself posted and do not hesitate to contact us if you have any questions.

egbcawards@emiratesgbc.org

Special Thanks

Emirates Green Building Council would like to thank the Sponsors who contributed in making this 2016 Awards Program a great success:

Official Sponsors

Emirates Green Building Council would like also to extend its gratitude to its corporate member and external auditor KPMG which for the fourth consecutive year has officially audited the EmiratesGBC Awards Program.

Emirates Green Building Council would also like to thank all those who contributed to the success of the 2016 Awards Program and Gala event:

- Office team: Lora Shrake, Marie-Helene Westholm-Knebel, Sheena Khan, Tara Tariq, Adelita Cortenias, Majd Fayyad, and Rana Al Kady
- EmiratesGBC Management Committee
- Awards Ceremony and Gala Dinner Emcee: Leila Al Marashi
- PR/media: Asda'a
- Photography: Xpogr
- Entertainment: Nina Oud
- Gala Dinner & Awards Ceremony: Al Marooj Rotana, Dubai

If you have any feedback regarding the Awards process and the Gala Dinner & Awards Ceremony, please send them to egbcawards@emiratesgbc.org or +971 4 346 8244.

The Emirates Green Building Council was formed in 2006 with the goal of advancing green building principles for protecting environment and ensuring sustainability in the United Arab Emirates.

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