

מרכז עזרי לחקר איראן והמפרץ הפרסי



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Building the First Green Mosque in the United Arab Emirates

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Building the First Green Mosque in the United Arab Emirates

By Dr. Moshe Terdiman

On March 8, 2014, the Awqaf and Minors Affairs Foundation (AMAF) announced that the construction of the Khalifa al-Tajer Mosque, the first eco-friendly mosque in the UAE, which should have been completed by March 2014, is 85% complete and will be opened in a short while. According to Tayeb al-Rais, the secretary general of AMAF, “the mosque will be the largest of its kind in Dubai spreading across 105,000 square feet with a built-up area of 45,000 square feet that can accommodate 3,500 worshippers”.¹

The Khalifa al-Tajer Mosque aims to achieve the Leadership in Energy and Environmental Design (LEED) silver certification. According to Muhammad Hassan, Director of investment in the AMAF, “we have utilized latest green technologies available in the region’s first eco-friendly mosque project. The installation of mixers that are in line with the specifications of green buildings will help reduce water consumption. Care has been taken to moderate the speed of water flow from taps in the ablution areas. Used water will be recycled and utilized in washrooms and for plant irrigation”. He further said that “the mosque integrates renewable energy solutions in its design. This is illustrated in the exterior lighting poles that are fitted with solar panels, battery storage system that is powered by solar energy and the use of solar panels instead of energy-draining electric heaters for the purpose of water heating”.²

In addition to the above mentioned renewable energy solutions and technologies, the design of the mosque will also incorporate energy-saving LED lights; a control system that automatically switches on the lights during prayer times or in the presence of an individual in the hall; daylight sensors in the extension of the mosque; a climate control system to regulate the air-conditioning units according to prayer times and the number of worshippers; thermal insulation in the building material for roofs and exterior walls to reduce heat transfer; double-glazed windows with metal coating to minimize the intensity of solar radiation into the mosque; technologically

¹ See on-line at: <http://gulfnews.com/news/gulf/uae/general/uae-s-first-eco-friendly-mosque-to-open-soon-1.1301113>; <http://www.albawaba.com/business/uae-green-mosque-559771>;
<http://www.constructarabia.com/construction-news/middle-east-s-first-green-mosque-under-construction/>

² See on-line at: <http://gulfnews.com/news/gulf/uae/general/uae-s-first-eco-friendly-mosque-to-open-soon-1.1301113>

advanced equipment to improve indoor air quality and the performance of the air-conditioning system; and green spaces, particularly gardens on the roof, for heat insulation. The mosque will be constructed with eco-friendly materials to avoid the use of asbestos and polystyrene.³

Through the Khalifa al-Tajer Mosque, Tayeb al-Rais hopes to “inspire many more such eco-friendly initiatives that are in line with Dubai’s vision for a sustainable future”.⁴ He also expressed his hope to make a lot of Dubai mosques eco-friendly by 2015 by using thermal insulation systems to reduce energy consumption and air conditioning units that release a lower amount of greenhouse gases.⁵

The Khalifa al-Tajer Mosque fits in with the Dubai Strategic Plan 2015, which states that “the strategic vision of the Infrastructure, Land and Environment sector is to integrate infrastructure development and environmental focus in order to achieve sustainable development. With this context, the Government aims to provide a sustainable, effective and balanced infrastructure including all elements such as energy, electricity, water, roads, transportation and waste management while protecting the environment”. It further states that “the aims for the infrastructure, land and environment sector will be achieved through maintaining Dubai as a safe, clean, attractive and sustainable environment”, which means that it will “update and align environmental regulation with best practices and develop required enforcement mechanisms; adopt a sustainable development approach by integrating environmental outcomes within development policies; and raise environmental awareness”.⁶

The Khalifa al-Tajer Mosque also fits in with the Green Building Regulations and Specifications in the Emirate of Dubai. This document obliges the Emirate of Dubai, under the opening preamble, to apply the green building regulations and specifications on all buildings in the Emirate of Dubai “in implementation of the decision of the UAE Vice President, Prime Minister and Ruler of Dubai His Highness Sheikh Mohammed bin Rashid Al Maktoum, and in line with the Dubai Strategic Plan 2015, and the directives for applying green building specifications on all buildings in the Emirate of Dubai as per the best environment-friendly international standards adapted to local conditions

³ See on-line at: <http://gulfnews.com/news/gulf/uae/general/uae-s-first-eco-friendly-mosque-to-open-soon-1.1301113>; <http://www.albawaba.com/business/uae-green-mosque-559771>; <http://www.arabnews.com/islam-perspective/eco-friendly-mosque-planned-dubai>

⁴ See on-line at: <http://gulfnews.com/news/gulf/uae/general/uae-s-first-eco-friendly-mosque-to-open-soon-1.1301113>

⁵ See on-line at: <http://www.selectproperty.com/2013/03/dubai-announces-plans-for-first-green-mosque/>

⁶ See on-line at: <http://www.sclgme.org/Dubai%20Strategic%20Plan%20-%20English.pdf>

of the Emirate of Dubai to keep Dubai a healthy city that follows the highest standards of sustainable development and has clean pollution-free environment”.⁷

It should be mentioned in this context that although the Khalifa al-Tajer Mosque is the first eco-friendly mosque in the UAE, it is not the first of its kind in the world. An eco-friendly mosque is a relatively new concept which aims at making mosques more environmentally and economically sustainable, reducing their impact on the environment while contributing to the wellbeing of communities. The first eco-friendly mosque was built in Manchester, Great Britain in 2008. Later on, green mosques have been built in other countries as well, in the West (in the US and Germany for example), in South East Asia (in Singapore for example) and in Middle Eastern countries, such as Turkey and Israel.

In most of these regions, public opinion has provided the impetus for the building of eco-friendly mosques. Islamic environmental organizations and Muslim environmental activists have felt a need to examine the way they live and rethink their relationship with the environment in light of the challenges of climate change and global warming faced by the whole of humanity. They have been trying to ensure that Muslim communities are and will be at the forefront of coming up with solutions to safeguard the future of the planet for generations to come. These solutions can be found in the Islamic religion. The Qur’an and the Hadith are full of verses and sayings regarding nature and the relationship between Allah, the human beings and nature. These verses and sayings urge human beings, among other things, to live balanced and moderate lives, to avoid excessive use of natural resources, and to respect nature. According to Islam, human beings are stewards or caretakers of the earth who are responsible for maintaining its balance. Therefore, some Muslims believe that they should be more involved in environmental activism in order to preserve Allah’s creation. For those Muslims, one of the places to start from is the mosque, the cornerstone institution in Islamic society.

On the other hand, in the GCC countries, it is governments that have been seeking to develop a culture of sustainability through regulation, while public awareness of environmental issues has remained weak. This is, at least partly, why the concept of an eco-friendly mosque is a relative latecomer to the Gulf countries. Nowadays, some of the Gulf countries – the UAE, Qatar, and Saudi Arabia – are moving towards building eco-friendly mosques. Saudi Arabia is in the planning stages of making more than 90,000 mosques throughout the country eco-friendly,⁸ and

⁷ See on-line at: http://www.dewa.gov.ae/images/greenbuilding_eng.pdf

⁸ See on-line at: <http://www.aawsat.net/2014/03/article55330263>

Qatar is working on regulations regarding building new mosques --- whether they are state or privately funded -- according to environmentally friendly models.⁹

Thus, the Khalifa al-Tajer Mosque can set a new standard for eco-friendly mosques not only in the UAE but also throughout the rest of the Gulf countries.

⁹ See on-line at: <http://www.greenprophet.com/2011/09/qatar-eco-mosques/>;
<http://www.constructionweekonline.com/article-23429-qatar-unveils-new-sustainable-mosque-designs/>; <http://www.voiceofsuccess.envearth.com/index.php?file=c-forumdetail&iBlogId=564>