Solar energy research and development manama

Solar energy research and development manama

Manama: Research projects on solar energy will receive a boost after Qatar Environment and Energy Research Institute (QEERI) and the Spanish Research Centre for Energy Environment and Technology (CIEMAT) signed a Memorandum of Understanding (MoU) on Wednesday to develop joint work on the issue.

QEERI, a member of Qatar Foundation for Education, Science and Community Development (QF), has identified solar energy as one of the core research areas to be conducted with CIEMAT, experts in the field of solar energy research.

"Qatar is blessed with huge solar energy resources, and we must always remember that clean, low-cost energy is critical to the development and sustainability of Qatar"s economy," Dr Rabi H. Mohtar, QEERI executive director, said. "We look forward to this partnership and hope to take strides towards a guaranteed supply of clean energy built upon our own local knowledge, research and development, taking Qatar from carbon to creativity."

"Through this and similar partnerships with local, regional and international partners, we hope to develop the know-how and the human capacity to reduce the reliance on imported technology" Dr. Mohtar said.

The MoU between QEERI and CIEMAT is intended to last an initial seven years to study and develop solar technology research capacity for the region. At current rates of technological advancement, solar energy is expected to be more affordable than other forms of energy within the next 30 years.

W. E. Alnaser, N. W. Alnaser; Solar and wind energy potential in GCC countries and some related projects. J. Renewable Sustainable Energy 1 March 2009; 1 (2): 022301. https://doi /10.1063/1.3076058

The purpose of this paper is highlight on the vast investments and applications carried in the GCCC, which can be considered as a transition phase in solar and wind energy use in these countries.

In the KSA, the historical wind speed measurements (Fig. 3) and the evaluation of wind speed frequency distributions for different sites in Saudi Arabia had revealed that the wind resources reached relatively high levels along the coastlines (Tabuk) and lowest in the Middle (Riyadh). The wind speed was observed to be greater in the western mountains and the northern region, with good opportunity performance in the southern

region of Saudi Arabia.

KACARE has developed a Renewable Resource Monitoring and Mapping (RRMM) program, which is in cooperation with the Battelle Memorial Institute and the United States-Based National Renewable Energy Laboratory to assist and evaluate the potential of solar and wind energy [14]. The KACST and KACARE platforms monitor network resources aimed to measure and record solar and wind energy data at different locations in Saudi Arabia to improve renewable energy technologies [14,15].

Rehman et al. [10] recorded a speed of 5.74 ms−1, in KSA, as the highest mean wind speed in the region at a height of 40 m. It was also reported that that higher wind speed values were recorded during the day and during the summer season, while lower wind speed values were recorded during the night and during the winter season [16].