

SUPPLY AND DEMAND GO HAND-IN-HAND

HOW THE PRIVATE SECTOR CAN ASSIST DUBAI IN ACHIEVING ITS RENEWABLE-ENERGY TARGETS



A lot can be said about regional organisations such as Masdar or KA CARE and their efforts to promote the development of sustainable clean energy in the region, but in terms of implementation, Dubai has clearly taken the lead. DEWA secured a record low tariff of USD 0.054 per kWh, which is on par with power generated through conventional gas-fired combined cycle power plants, with the successful consortium about to start construction of the second

phase of the Sheikh Mohammed Bin Rashid Al Maktoum Solar Park and the bidding process for the third phase commenced. "Dubai has the potential to lead the region, not only in utility-scale solar projects but also in small-scale solar-power generation and in developing other types of renewable energy," says Mhairi Main Garcia, Counsel at Ashurst. "The development of renewables in the Emirate is not just a flash in the pan. Dubai took a giant stride earlier this year, completing the second phase of the Mohammed bin Rashid Al Maktoum Solar Park,

with the issuance of the RFP for the mammoth 800MW third phase imminent. Large-scale utility-sized renewable-energy projects in Dubai are not only achievable but, at least in terms of solar PV, are capable of competing on cost with conventional energy. Challenges remain, however, in developing an attractive investment and regulatory environment for smaller scale renewable projects."

In addition to the expansion of the solar park, DEWA launched Shams Dubai, a net metering scheme which enables building owners to reduce their utility bills by offsetting some power consumption through solar power, with the potential to add several hundred MWs annually to the DEWA grid. According to Jeremy Crane, CEO of Adenium Energy Capital, "Shams Dubai has the potential to significantly reduce the carbon emissions for many of the large commercial and industrial industries in Dubai. For the first time, they can directly generate electricity for themselves, on their premises. The future of solar power in the Middle East has never been so bright." With so much promise in the sector of renewable energy in general and solar energy specifically, it is foreseeable that more investment from international entities will be seen in Dubai. "We think the current development in Dubai provides excellent opportunities in distributed solar - a sector we are actively investing in," says Martin Haupts, Managing Director of Phanes Group.

This puts DEWA in a good position regarding its recently announced renewable-energy target of 24% by 2030. However, to achieve this ambitious target, it won't be enough to simply deploy more photovoltaic solar-power capacity. A successful renewable-energy strategy should include a number of key elements, such as a strong focus on improving energy efficiency across all sectors. This requires a smart grid, with sufficient demand-management capability to manage, for example, weather-related fluctuations in solar-power production. Additionally, it would be advisable to open the Shams Dubai programme to other renewable-energy technologies such as micro wind turbines, fuel cells or biogas-fired generators. Another potential source of clean energy is the environmental sector, where energy from waste, biogas and waste-heat recovery solutions could provide a substantial source of dispatchable clean power.

Finally, diesel-fuel consumption can also be reduced by encouraging the use of solar power, rather than diesel generators, for off-grid application. To make this happen, it is important for Dubai to continuously improve the existing regulatory framework to enable sufficient private investment in clean-energy solutions. "We strongly believe that Solar PV energy can play a major role in helping rapidly develop Dubai to become a leading smart city with a reduced overall carbon footprint," concludes Raed Bkayrat, VP of Business Development Middle East for First Solar. *em.d*

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