



Global
Solar
Council

Distributed Solar In The United Arab Emirates

Short overview of status and
permitting procedures, based on a
survey results.

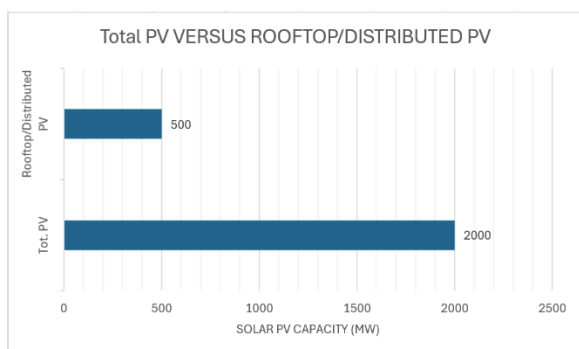
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In 2022, Africa and the Middle East's market share in the solar landscape increased from 2.8% to 3.5%. According to Solar Power Europe, the two driving forces for this growth were efforts by South Africa and the United Arab Emirates. While a specific target for solar is not available, the country has a target of achieving 14 GW of renewable energy sources by 2030.

In 2019 the UAE surpassed the Gigawatt boundary and has continued their progress, reaching just over 3 GW in 2022 (3.04 GW to be exact.) This large jump comes in part because of the installation of the largest single-site solar farm with a capacity of 2 GW as part of the Al Dhafra farm. While there is no data specifically available for the rooftop solar power capacity for the UAE, Dubai's estimated rooftop solar capacity is about 500MW as of 2022 ([SolarQuarter](#)). As of 2022, Dubai's total solar capacity has just exceeded 2000MW due to the solar farm installation ([Statista](#)).



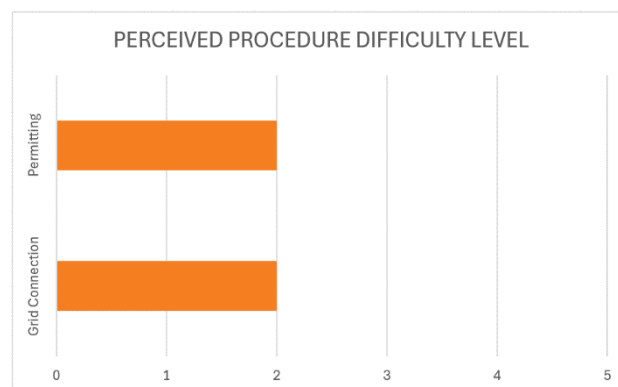
This solar farm, Mohammed bin Rashid Al Maktoum Solar Park in Dubai, has a planned production capacity of 5000 MW by 2030,

saving a projected 6.5 million tons of carbon emissions annually.

PERMITTING AND GRID CONNECTION

Processes are not uniform as they vary from emirate to emirate making installations more and less difficult depending on the region. In Dubai there is the Shams Dubai initiative, in Sharjah there is the initiative to distribute solar energy systems, and in Abu Dhabi the Abu Dhabi Distribution Company announced it would facilitate the installation of solar panels on homes and institutions.

Under the Shams Dubai programme, the installed capacity of rooftop solar PV in the region reached a cumulative capacity of 500 MW. This programme serves to facilitate the permitting and connection of rooftop projects whilst providing net metering alongside it in as that of Al Dhafra. MESIA indicates this programme is the reason for which both permitting and grid connection is relatively straightforward, assigning a score of 2/5 for both processes.



What does slow the process down is the design approval stage whereby applicants

must provide detailed plans and specifications of the installation for approval. The more complex the system the more time-consuming this process is, for applicants in Dubai there are 4 stages for users to complete:

- The No Objection Certificate stage
- The design approval stage
- The inspection and connection stage and,
- The generation stage

The duration for obtaining solar energy permits and connections in Shams Dubai program is as follows: Solar energy permit: 11 working days. Inspection and examination: Technical inspection before connection: one working day from the date of request for inspection. Technical inspection after connection: one working day from the date of the inspection request.

POLICY AND INCENTIVES

MESIA highlights the lack of tax incentives as a limiting factor for the deployment of solar PV and recommends its introduction as a policy in the region as it could incentivise more corporate bodies to adopt the use of rooftop solar PV. Moreover, the current local nature of incentivisation and authorisation, though intrinsic to the region, poses a threat to the widescale uptake of solar energy as a byproduct of differing processes and conditions for solar energy installations.

However, there are some incentives for PV installation due to the "net metering", whereby any surplus electricity not used is

immediately sold back to the grid at the same price, and the customer is only billed at the end of the month for the net amount used. If a customer produces more energy in a month than they have consumed, DEWA allows for rolling this over to the next month, further reducing the electricity bill in the next month. The advantage of net metering is that customers stay connected to the DEWA grid, therefore combining the reliability of a grid connection with the lower cost of solar energy.