



# Middle East Solar Industry Association (MESIA)

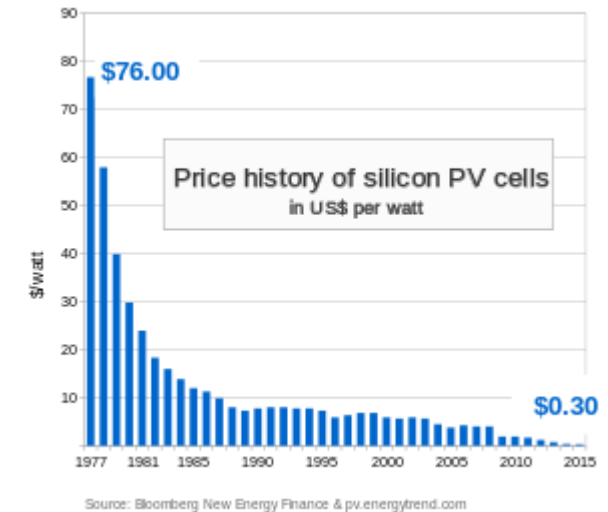
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## Middle East Solar Projects Overview

January 19, 2017

## Highlights of 2016

- 2016 started with 5.85 US\$ cents / kWh from DEWA Phase II in mind (200 MW)
- 2016 was characterized by a favorable macro-economic environment for solar:
  - Continuously dropping prices for equipment: solar panels, inverters, etc.
  - Availability of cheap US\$ funding fueled by Quantitative Easing worldwide
- Leading to world beating tariffs for solar PV across the region:
  - DEWA Phase III (UAE) – 2.99 US\$ cent / kWh (800 MW)
  - ADWEC Sweihan (UAE) – 2.42 US\$ cent / kWh (1,200 MW)
  - Noor IV (Morocco) – 4.6 US\$ cent / kWh (170 MW)
- And a downward revision of the Benban Feed-in Tariff (Egypt) – from 14.34 to 8.4 US\$ cents / kWh
- Shams Dubai (rooftop PV) gains more traction
- Key projects well under construction: Noor II & III (Morocco), Round 2 (Jordan), DEWA Phase II (UAE)



Solar energy prices continued to fall rapidly in 2016. What is the outlook for 2017?

## Solar PV – Insight (in collaboration with Frost & Sullivan)

- Global annual installed capacity for solar PV only to cross 75 GW by 2020.
- Massive opportunity for developers, EPC contractors, equipment suppliers, and financiers:
  - Solar module market size: 6.5 – 7.5 bn. USD (2014-2020) for GCC only
  - EPC services market size for solar PV: 4.5 – 5.0 bn. USD (2014-2020) for GCC only
- Outlook for Middle East & Africa:
  - 8.1% Cumulative Annual Growth Rate (CAGR) for solar PV market in revenue terms (2015-2020)
  - Over this time period, Industrial and Public projects will maintain a market share of 65%- 68%, with Residential and Commercial applications lagging behind. Few exceptions for rooftop (i.e. Dubai, Jordan, Palestine)
  - From a technology point of view, Crystalline silicon will maintain the majority market share of the installed base, forecasted to constitute >90% of the total installed market by 2020
  - Both on-grid and off-grid applications are seen to grow in the region, constituting near equal shares of the installed base by 2020

Will reality outpace the forecast as has been systematically the case over the past few years?

## Solar PV – Project Outlook MENA – 2017

- 2017 will be mainly a large-scale solar game, albeit smaller than DEWA Phase III and Sweihan

Country	Egypt	Jordan	Morocco	Oman	Saudi Arabia
<ul style="list-style-type: none"> <li>••Name</li> <li>••Off-taker</li> <li>••Size (MW)</li> <li>••Type</li> <li>••Status</li> </ul>	<ul style="list-style-type: none"> <li>••Round 2</li> <li>••NREA</li> <li>••2,000</li> <li>••FIT</li> <li>••Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>••Round 3</li> <li>••MEMR</li> <li>••200</li> <li>••Tender</li> <li>••EOI</li> </ul>	<ul style="list-style-type: none"> <li>••Midelt</li> <li>••Masen</li> <li>••450 <sup>(1)</sup></li> <li>••Tender</li> <li>••SOQ</li> </ul>	<ul style="list-style-type: none"> <li>••Solar PV</li> <li>••OPWP</li> <li>••200</li> <li>••Tender</li> <li>••Planning</li> </ul>	<ul style="list-style-type: none"> <li>••Jouf/Rafha</li> <li>••SEC</li> <li>••100</li> <li>••Tender</li> <li>••RFP</li> </ul>

*Source: Middle East Solar Industry Association (MESIA)*

*(1) Midelt is a hybrid project combining both PV and CSP technology*

- There will be pockets of opportunity for rooftop solar as well, Dubai (Shams) and Palestine

## Solar CSP – Project Outlook MENA – 2017

- CSP opportunities across the region in 2017; both pure-play CSP and hybrid tenders will be launched

Country	Egypt	Egypt	Morocco	Dubai	Kuwait
<ul style="list-style-type: none"> <li>••Name</li> <li>••Off-taker</li> <li>••Size (MW)</li> <li>••Type</li> <li>••Status</li> </ul>	<ul style="list-style-type: none"> <li>••TAQA CSP</li> <li>••MESRS</li> <li>••250</li> <li>••TBD</li> <li>••Planned</li> </ul>	<ul style="list-style-type: none"> <li>••West Nile</li> <li>••EETC</li> <li>••100</li> <li>••Tender</li> <li>••SOQ</li> </ul>	<ul style="list-style-type: none"> <li>••Midelt</li> <li>••Masen</li> <li>••450 <sup>(1)</sup></li> <li>••Tender</li> <li>••SOQ</li> </ul>	<ul style="list-style-type: none"> <li>••DEWA CSP</li> <li>••DEWA</li> <li>••200</li> <li>••Tender</li> <li>••RFP</li> </ul>	<ul style="list-style-type: none"> <li>••Al Abdaliyah</li> <li>••MEW</li> <li>••280 <sup>(2)</sup></li> <li>••Tender</li> <li>••RFP</li> </ul>

**Source:** Middle East Solar Industry Association (MESIA)

(1) Midelt is a hybrid project combining both PV and CSP technology

(2) Al Abdaliyah is a hybrid project combining both CSP and Combined Cycle technology

More opportunities and details will follow in MESIA – Solar Outlook Report 2017 (launch mid-February 2017)

## MESIA – Activities & Calendar 2017

- Solar Outlook 2017 (publication): 3<sup>rd</sup> week of February, 2017
- Technical Sessions: first technical session of 2017 will be focused on financial aspects of projects in partnership with Synergy Consulting: 3<sup>rd</sup> week of February, 2017 (tentative)
- Trade Missions (tentative): Pakistan, Saudi Arabia
- Potential Trade Missions focusing on Sub-Saharan Africa (i.e. Kenya)



**Thank you!**

## MESIA – Interested to learn more about MESIA?

- Please visit our website on: [www.mesia.com](http://www.mesia.com)

- Or Contact:



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