**Morocco A pioneer in developing large scale solar for its own needs and for exports**

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**Abstract**

Morocco is highly dependent on imports, especially of fossil fuels, with 97% of its primary energy demand covered by imports. As a result, Morocco is particularly vulnerable to oil price fluctuations and to supply disruptions that could range from availability of supply and political externalities to logistical issues such as late deliveries, pipeline disruptions, and bad weather. In 2009, Morocco made the strategic decision to maximize use of its domestic renewable resources to increase its energy security, reduce its dependence on imported fossil fuels, and limit carbon dioxide (CO2) emissions**.** The country adopted an energy strategy, with the objective of increasing the country’s share of renewable energy (RE) to 42 percent of national power generation capacity by 2020, and to improving energy efficiency by 25 by 2030, thus reducing greenhouse gas (GHG) emissions. Morocco plans to meet this renewable energy target by developing 2,000 megawatts (MW) of solar capacity, under the Moroccan Solar Plan (MSP), 2,000 MW of wind capacity and 2,000 MW of hydro, to take advantage of the country’s excellent renewable energy resources.

The MSP not only contributes to energy and climate objectives, but also to job creation through local manufacturing and the provision of related services, firmly positioning Morocco on the green growth path. The first phase (160 MW) of the first site of the MSP is under construction in Ouarzazate, while the financing of the second phase (300 MW, of which 200 MW parabolic trough and 100MW tower) has just been closed and the PPP contract award is imminent. 50 MW PV will be launched during 2015. This positions Morocco firmly as a leader in solar energy, especially of the CSP technology. The technology is particularly useful in Morocco because it can provide carbon-neutral, firm capacity that can be dispatched during the country’s evening peak electricity demand. Advancing development of this technology requires public investment that so far Morocco and a few other countries have been willing to make. Morocco’s investment in this project, and the Morocco Solar Plan, contributes to global knowledge of the CSP technology, one of the few carbon-neutral technologies that can provide base load power, and to lowering its deployment costs.

The Moroccan experience in CSP is therefore of use not only for the country itself, but also to the rest of MENA region, the developing world in general and Europe. Morocco is the only country of the southern Mediterranean shore directly connected to the European grid, through two cables under the Gibraltar straight for a capacity of 1400MW. Although the electricity currently flows from Spain to Morocco, that situation could change when Morocco has fully implemented the MSP. Moreover Morocco is a key strategic partner of the European Union (Advanced Status since 2008). Through the Neighbourhood Investment Facility, and the European Investment Bank, the European Union contributed in grants and loans to the financing of the Ouarzazate CSP plant that will have a capacity of 500 MW when fully commissioned in 2017. Thanks to the MSP, Morocco could not only meet its green growth objectives, but could also support Europe in achieving its energy and climate objectives through enhanced electricity exchanges between the two shores of the Mediterranean.

The leading role played by Morocco in the fight against climate change, and the development of the required technologies, has just been recognized in the nomination of Morocco to host COP 22 in 2016, which is to be the COP of Actions to implement decisions taken in Paris at COP 21. This will be the second time Morocco hosts a COP, after the COP7 in Marrakech in 2001.