Challenges for Solar Energy in the Mediterranean: Networks & Supporting Entities

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The primary energy demand in South and Eastern Mediterranean Countries (SMECs) has progressively increased over the last few decades, and mostly after the early 2000s, due to various factors such as rapid population growth, urbanization, economic growth and low efficiency. In addition, energy & electricity demand in SMEC is supported on hydrocarbon sources (only a few southern and eastern Mediterranean countries are hydrocarbon exporting countries but most are energy-dependent) and the energy demand will grow by 4,8% annually until 2020. Consequently, the cost of energy is increasing and environmental damages are aggravating so it is thus clear, that a new energy model is required for the region. Moreover, the Mediterranean region has one of the largest and best solar energy potential in the world. This data suggests that another energy model is possible if this irradiation would be fully exploited.

A shift to solar energy is taking place to a limited extent and in very few Mediterranean countries. Existing initiatives and projects are already running and are being promoted under the umbrella of the Mediterranean Solar plan (MSP) as the mayor initiative under the Union for the Mediterranean in the field of the solar sector. The MSP is designed to ensure that increased electricity demand in the region can be met in a sustainable and renewable way. The MSP aims to achieve this through the development of 20 GW of generation capacity from renewable energy sources on the south and southeast shore of the Mediterranean, for own production and possible export to Europe.

In this sense, the solar sector in the Mediterranean is a field in which there are opportunities for improving the region in terms of social, economic and environmental development. Common views regarding the solar energy sector are shared in the EU and MENA countries, mainly regarding the bureaucracy and the public decision making, that are mentioned among the main barriers for the development of the sector. Space constraints are also seen as a hinder to the decision to install solar systems.

In EU countries, the policies regarding the solar sector are subject to the UE climate change policy that leads to a high pressure towards renewable energy (RE) and Energy Efficiency. However, the instability of the national policies (subsidies have been reduced or terminated) and the administration permissions and city council approval are the most important barriers perceived for a full enhancement of the sector. In addition, another important issue to be tackled relies on the absence of maintenance of infrastructures already established. Regarding the lack of information, in the north shores of the Mediterranean, is related to the non-achievement of full dissemination in relation to new solar technologies and storage systems and their costs.

In the MENA countries different policies, strategies, and different subsidy programs have been designed to promote the transition to renewables, even though there are a high level of subsidies to sustain fossil fuel consumption. However, the implementation of the aforementioned policies has often been unsatisfactory; moreover, the communication has also been defective. In general, the highest interest has been placed on energy efficiency and on the solar thermal technology, since it is deemed cheaper, easier to use, and more suitable to urban areas that are grid connected than the PV panels, which are not widely used since urban areas have a lack of space in rooftops due to the presence of water tanks and diesel electricity generators. It is also important to highlight that In MENA countries, there is an absence or low quality of local components manufactures for solar components and modules, which entails to be imported from foreign countries and consequently to increase their prizes due to high customs costs.

Fifteen different European Territorial Cooperation Mediterranean programs (ETC) have been carried out with a total of 104 projects addressing RE (80% addressing Solar Energy as a whole). The main difficulties for achieving a complete success in these activities are related to the diversification of objectives, a few places for synergies and a measurement of key variables inefficient.

These aforementioned data shows that work has already been carried out in the Mediterranean Solar energy sector, but there is still a lot to be done. The Mediterranean solar energy scenario is composed by different actors which work for promoting the sector as well as for the integration of the Mediterranean and the Euro-Mediterranean partnership. In this regard, ASCAME (the Association of the Mediterranean Chambers of Commerce and Industry of the Mediterranean), present in more than 23 countries of the Mediterranean and more than 250 cities, acts as one of the main a supporter of the sector throughout the different projects and initiatives in which it is involved (Managing since 2007 more than 70 projects representing 100 M€).