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PROMOTING RENEWABLE ENERGIES IN THE MENA REGION: REGULATORY DEVELOPMENTS AND POSSIBLE INTERACTIONS WITH FUTURE EU SUPPORT SCHEMES FOR RES-E

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Overview

Population growth and economic development are likely to cause a significant increase of electricity demand in the Middle East and in North Africa (MENA). Although the MENA region offers high wind and solar potentials at comparatively low cost [1] electricity generation is still largely dominated by fossil fuel sources [6]. Also, domestic energy prices are often kept below market prices through subsidies in order to promote the domestic industry and alleviate energy poverty among the population [2]. However, it is unclear whether this policy is sustainable with a growing energy demand. An alternative medium-term strategy is the promotion of renewable energies (RE) and several MENA countries have already formulated RE targets [7]. However, the current regulatory framework and electricity market structure in many MENA countries imply barriers for the integration of RE. Implementation of support policies and restructuring of the regulatory framework in favour of RE generators will be required to allow for a large-scale RE penetration.

The European Union (EU) could play a significant role in supporting the development of RE in the MENA region. This is due to two reasons: Firstly, the EU Member States have a long track record in terms of RE policy and can offer best practise examples for implementation of support schemes and regulatory frameworks, which have proven to be successful in the last decade [4]. Secondly, importing renewable electricity from 3rd countries, like the MENA region, to the EU is a valid option to reach the RE targets of the European Member States. The current RE targets are defined by the EU Renewable Directive (2009/28/EC) with a time horizon until 2020. Article 9 of the Directive sets the conditions for establishing cooperation with 3rd countries. For the period after 2020, new RE targets will be defined. Possibly, the process of defining targets for post-2020 will also imply a redefinition of the RE policy framework in the EU.

Therefore, analyzing the compatibility of possible future RE support schemes in the EU with expected regulatory environments for RE in MENA facilitates an evaluation of the interregional RE market integration potential and can furthermore support an efficient policy design in both regions. This paper focuses on the analysis of the compatibility of the regulatory framework for RE in MENA with different potential policy pathways in the EU for the period beyond 2020.

Methods

We assess possible developments in RE regulation in the EU and in selected MENA countries based on empirical and theoretical analyses. The assessment focuses on the period after 2020 and aims at deriving indications on how future policy frameworks in both regions could be designed in order to facilitate an enhanced cooperation and stronger RE market integration in the future. The case study countries in MENA comprise Egypt, Morocco and Algeria. First we conduct a comprehensive status quo assessment of the current regulatory frameworks for RE through review of scientific literature and national regulatory documents. Further we gather information through an in-depth stakeholder consultation process (via semi-structured interviews and questionnaires) in order to gain insights into the view of local experts about national policy preferences and anticipated regulatory developments. This allows us to identify the major domestic drivers and barriers for RE development and to assess the future potential of energy cooperation between the EU and MENA.

In a parallel step, we analyse possible pathways for the evolution of European RE support policies after 2020. Thereby, the analysis focuses on the potential impact of these anticipated policies on the development of RE in the MENA region. Due to the variety of options, we focus on the major policy trends that are currently discussed among

EU stakeholders; namely premium system, quota system and tender based schemes [3][5]. The analysis further considers different levels of support scheme harmonization among the concerned countries [8]. Finally, the selected policy pathways and the anticipated regulatory developments in MENA are evaluated against a set of criteria to identify major critical issues for future regulatory compatibility.

Results

As the main barrier for RE cooperation from the MENA side, we have identified the limited implementation of RE support schemes and the incomplete liberalization of the domestic energy markets, which constrains the compatibility of the regulatory regimes and impedes or even prevents the entrance of independent RE generators. Major importance, in this context, is to be attached to fossil fuel subsidies, which lead to intransparent and distorted electricity prices. Further barriers are identified regarding the institutional setup and grid regulation in the MENA countries. However, the significance of the impact of these regulatory barriers on the future policy compatibility and market integration differs between the assumed policy pathways. Our analysis further indicates that a higher level of coordination among EU support schemes would reduce the complexity of the negotiation process between 3rd countries and the EU and could push for a strong utilization of the low-cost RE potentials in the MENA region. On the other hand, an opening of EU support schemes to 3rd countries and a stronger harmonization of support instruments would imply strict requirements regarding the transformation of the regulatory framework of all participating countries. These requirements have been identified and evaluated in detail in the present analysis.

Conclusions

Based on the survey results, it can be anticipated that for many MENA countries it will be very challenging to meet the regulatory requirements imposed by the anticipated post-2020 EU RE support schemes. This applies in particular to those policy pathways with a high level of harmonization of the support instruments. A continuous evolution of current tendering schemes for RE-imports (analogue to the EU Article 9 scheme), possibly controlled by a central EU institution after 2020, is considered as the most realistic option from the perspective of the MENA countries. Further policy analyses and, most importantly, a continued stakeholder dialogue involving experts from both regions will be crucial to develop strategies and instruments for a steady regulatory convergence for the benefit of both regions.

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