

Promoting low-carbon energies in Mediterranean partner countries

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Summary

Renewable energies remain marginal in the European neighbourhood, and their contribution to economic and human development is still largely unexplored. Directive 2009/28 on renewable energies explicitly contemplates green electricity imports from third countries, and the Mediterranean Solar Plan offers an economic and institutional framework for its deployment in the Southern neighbourhood. This Policy Paper addresses the question of whether these initiatives have the potential to become a driver for the development of the Southern neighbourhood or should instead be better considered as an EU-centric project to support European renewable industries and engineering firms. This Policy Paper argues that, in order to become a driver of economic development for the region, those initiatives should consider accompanying measures to foster investment, training, industrial delocalisation, and technology transfers.

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Introduction

Renewable energy sources (RES) have become a hallmark of the EU's energy policy. The emphasis placed on renewable energies by the European Commission was supported by several Member States and their industries, helping to position the EU as a world leader in the sector. The European RES industry has positioned itself on the technological frontier, European utilities and grid operators are among the most experienced in integrating renewable sources into energy systems, and Member States' regulatory frameworks usually serve as international benchmarks. However, apart from exceptions in some countries, the deployment of renewables has remained marginal in the European neighbourhood and its contribution to economic and human development in those countries remains largely unexplored. European RES investments have been concentrated in developed or emerging markets (mainly the EU itself and the US). RES imports to the EU are mostly limited to biofuels and RES-generated electricity from Norway and, occasionally, from Morocco.

This picture started to change with new technological developments. New transmission and solar technologies opened the way for an integrated Euro-Mediterranean RES market which will allow countries on the southern shore of the Mediterranean to export RES-generated 'green electricity'. Industrial initiatives such as Desertec and the European-led Mediterranean Solar Plan tried to offer an industrial, economic and institutional ground for its development. Finally, Article 9 of the Directive 2009/28 on renewable energies explicitly contemplates green electricity imports from third countries.

This Policy Paper analyses these two energy policy instruments, Directive 2009/28 and the Mediterranean Solar Plan, focusing on their development implications for Mediterranean Partner Countries (MPCs). The first section offers a brief overview of both instruments. The second section argues that RES promotion offers the opportunity to become a driver of development in MPCs, briefly discussing under which conditions its impact would be maximised. The last section concludes with some policy recommendations regarding RES deployment patterns in MPCs.

1. Europeanising renewables in the Mediterranean

The challenge of integrating RES, particularly 'green electricity', in the Euro-Mediterranean energy space seems to follow the outward Europeanisation path so beloved to the EU in its relations with neighbours. The idea is that Europe's neighbours would get differentiated access to its RES market based on compliance with EU norms. This market-access incentive would anchor RES-related policies and promote its deployment in the European neighbourhood.¹

Transnational RES deployment is a complex issue because renewables require support schemes that are difficult to implement, particularly across national borders. Member States only support locally-produced RES, and one of the goals of Directive 2009/28 is the facilitation of cross-border RES support without necessarily affecting national support systems. In order to do so, it introduces cooperation mechanisms among Member States. The flexibility measures contemplated by the Directive include statistical transfers, joint projects and, also, joint support mechanisms. Statistical transfers refer to the exchange of green certificates: for instance, the green certificates generated by solar or wind energy in Southern Europe (if they exceed the respective national objectives) can be accounted for in the objectives of a Northern EU Member State.

¹ For a critique of the naïve version of this approach, see Gonzalo Escibano, "Convergence towards Differentiation: The Case of Mediterranean Energy Corridors", *Mediterranean Politics*, 15 (2), 2010.

For 'green electricity' (electricity that is green certified) imported from third countries, the conditions are not so flexible. First, they do not include statistical transfers: only physical electricity transfers can be accounted for in Member States' RES targets. Member States can implement joint projects with third countries, including in their national objectives the green electricity imported from the third country and consumed in the EU. In the absence of existing (but projected) operative interconnections, the Member State can include in its national objectives the green electricity transfers that have been agreed to that end with the third country until the needed infrastructure is in place. There is no obstacle to implementing joint support systems for joint projects with third countries. The only limitation, which also applies to intra-EU projects, is that in order to be included in the national objectives, the imported green electricity cannot benefit from support schemes in the third country, with the significant exception of investment support for the construction of installations.

In fact, even if statistical transfers with third countries are excluded by the Directive, de facto it offers the opportunity to such countries of including statistical transfers by joining the Energy Community Treaty (ECT). As the Directive clearly states, contracting parties of the Energy Community Treaty could benefit from the same flexibility measures as EU Member States, if it was so decided. This is an open possibility for MPCs to enter the club of statistical transfers, widening the opportunities for RES deployment in the region to those countries which are Europeanising their energy norms. Few Mediterranean countries outside Europe are nowadays ready to adhere to the ECT, perhaps with the sole exception of Turkey, Israel and Morocco. Joining the ECT implies adopting the EU energy acquis, a difficult move in a region characterised by lack of competition and state-owned energy companies, some of them with significant hydrocarbon reserves in countries like Algeria, Libya or Egypt. However, convergence towards RES-related EU acquis could be more easily compared with conventional energies, because RES are not a threat to significant vested interests, facilitating institutional innovation.

Under Directive 2009/28's institutional design for RES flows with third countries, the Mediterranean Solar Plan (MSP) proposes a road map to catalyse investment, industrial development and regulatory innovation to foster RES deployment in the Southern neighbourhood. It is one of six projects considered by the Union for the Mediterranean (UfM). Its goal is to deploy 20 Gigawatts of installed renewable energy capacity in the Mediterranean region by 2020 along with the necessary transmission capacities and cross-border interconnections, as well as fostering energy efficiency measures. The 2008 Paris Declaration that gave birth to the UfM stated that "market development as well as research and development of all alternative sources of energy are (...) a major priority in efforts towards assuring sus-tainable development." Despite the precision about the Solar Plan, the sense of the Declaration calls for the mobilisation of all alternative energies, including wind.

Its inclusion in the UfM came out of the French-German bargaining that led to the Paris Declaration, but its origins can be traced back to the Trans-Mediterranean Renewable Energy Cooperation Network (TREC) – a partnership between the Club of Rome, the Hamburg Climate Protection Foundation and the National Energy Research Centre of Jordan created in 2003. Together with the German Aerospace Centre (DLR), the TREC developed the Desertec project, an EU-MENA initiative based on solar thermal energy. With the support of the Greens and German industry,

the German government supported the Desertec initiative in its 2007 Presidency of the EU. A few months later, the Desertec White Book² was presented at the European Parliament, and began to receive increasing support in Brussels. At that time, French President Nicolas Sarkozy was proposing his Mediterranean Union, facing strong opposition from Germany. Finally, the Union for the Mediterranean was watered down to the UfM, which included the MSP as its flagship project.³

Tasked with the development of the projects, the UfM's Secretariat plays a central role in the MSP institutional framework. A delay in its operative constitution, followed by the resignation of its Secretary Generals, has not allowed it to invigorate the process thus far. This has been coupled with the financial crisis, which has dried up financial markets and decreased enthusiasm for renewables. But aside from financial and institutional problems (governance of the MSP, the role of the European Commission and the UfM Secretariat), the MSP has failed to provide a credible and recognisable framework mainly because it has been unable to take the preferences of MPCs into account. These preferences consist in profiting from their structural comparative advantages (insolation or wind, abundant space and labour force) and building dynamic ones like industrial clusters, innovative regulation and technical skills. The following section is devoted to the weaknesses of the current MSP approach as a driver for economic development in MPCs.

2. A driver for the development of whom?

Directive 2009/28 provides the framework for the integration of RES in the Euro-Mediterranean region and the functioning of the MSP. However, the MSP should also meet UfM objectives inherited from the Barcelona Process for achieving a shared space of peace and prosperity. This was reassessed by the Joint Communication from the Commission and the High Representative,⁴ which includes RES deployment as a channel for Euro-Mediterranean cooperation.

While the MSP has generated a lot of literature, little has been said on its human development impact for the European neighbourhood. A well-designed MSP should be conceived as a driver for economic development for MPCs in at least five aspects:

- To provide part of the energy required by the economic growth of MPCs;
- To contribute to the supply of modern energy services required for economic development;
- To contribute to eradicate energy poverty;
- To use solar and wind energy resources to generate new economic activities, new jobs and new incomes;
- To provide technical cooperation, training and technology transfers in order for MPCs to reap the benefits of RES deployment.

Taken together, all these elements form a consistent cooperation programme for sustainable Euro-Mediterranean energy development. Energy development consists in increasing the provision and use of energy services, and is a key driver of economic development. Energy development also determines the manner in which energy is generated and used, and has a direct impact on sustainable development. It is important to point out that such a comprehensive programme would constitute the first occasion in which energy is conceived as an instrument of development in the

² Desertec Foundation, "Clean Power from Deserts", White Book, 4th edition, 2008.

³ For a more detailed analysis, see Luigi Caraffa, "The Mediterranean Solar Plan through the Prism of External Governance", EuroMeSCo, Paper 5, 2011.

⁴ European Commission and the High Representative, **A partnership for democracy and shared prosperity with the southern Mediterranean**, Joint Communication, COM (2011) 200 final, 8.3.2011.

Mediterranean. The question is whether the MSP has the potential to become a driver for the development of MPCs or should instead be better considered as an EU-centric project aimed at achieving its own environmental objectives together with the promotion of European industries and engineering firms. The answer to this question depends upon the conditions under which RES deployment is implemented.

A study on the impact of RES deployment in Morocco can help illustrate the complex policy choices involved in the process.⁵ The general conclusion is that RES deployment entails significant economic opportunities for Morocco in terms of GDP and employment. In the proposed scenarios, the figures for economic impact on GDP vary from +1.17% to +1.9% at the end of the period (2040), with employment figures showing the possible creation of between 267,000 and 482,000 full-time equivalent direct and indirect jobs. The article shows that policy decisions regarding exports and improving local capacities are crucial in maximising the opportunities RES offers to the country, a result that can be extrapolated to the rest of MPCs (with subtle differences from country to country). The best economic performance is attained with exports (virtual or physical) based upon improved local capacities. This is because in order to maximise economic gains, MPCs need to participate more fully in the industrial dimension of the initiative. This means improving its absorption capacity at the industrial level, integrating the RES sector into a comprehensive industrial policy, as well as upgrading infrastructures and regulation. For the EU, it is important to highlight the significance of supporting the country's absorption capacity through technical cooperation programs, including training, twinning, scientific exchanges, networking, etc. at every level related to RES deployment.

The Moroccan case clearly illustrates the argument for approaching MSPs as a comprehensive sustainable development strategy. In designing regulatory, trading and financing schemes, the focus should be on MPC development. If the benefits are not captured by EU companies and EU Mediterranean partners, several accompanying measures should be adopted. One of them is to focus on alleviating energy poverty in rural households, for the positive impact this has on sustainability and human development. This calls for supporting individual, decentralised photovoltaic systems, but also delivering modern energy services not necessarily related with renewable energies (e.g. GPL). Another prerequisite is supporting the training of Moroccan manpower to attract investment. However, training should not be exclusively provided for the purposes of maintenance, which is the activity that generates less jobs and added value. Meaningful participation in the industrial, engineering and operation stages should be attained in the medium term. At the same time, the EU should establish a long-term mechanism for promoting technology transfers and enhancing local innovation capabilities.

3. Final remarks

Without such pre-requisites, the whole discussion on the Mediterranean Solar Plan may deviate from its main objective. As a project included in the UfM, it should aim to create a shared prosperity area in the Euro-Mediterranean region. This can only be achieved by accompanying MPC reform efforts and strengthening their economic opportunities, through green electricity exports, for example. Southern Mediterranean neighbours have shown their interest in renewable energies, but have also clearly pointed out the kind of European support they require: investment, training,

⁵ See Rafael de Arce, Ramón Mahía, Eva Medina and Gonzalo Escribano, "A simulation of the economic impact of renewable energy development in Morocco", *Energy Policy*, 46: 335–345, 2012.

gradual delocalisation of industrial stages, and technology transfers. Without the upgrading of MPC institutions, human capital and the rural energy poverty situation, the MSP may be reduced to an EU strategy to achieve the region's own environmental objectives together with promoting European renewable energy industries, energy companies and engineering firms. This scenario would contribute very little to MPC development. MPCs themselves should be aware that in order to reap the benefits of RES deployment, significant upgrading at the institutional and infrastructure levels is needed. They must signal their will to provide an attractive ecosystem for investment, training and technology transfers.

Regarding the consistency of EU policies in promoting RES, the MSP and Directive 2009/28 offer a coherent framework with complementary goals. The Directive establishes a viable institutional framework for cross-border RES flows, while the MSP should catalyse investment to advance specific projects. The problem seems to lie in the lack of traction of the UfM Secretariat, but the difficulties of the current financial crisis should not be forgotten. In any case, the MSP has not been able to translate into a comprehensive strategy to include MPC preferences such as job creation, economic growth and industrial development. The institutional structure is there, but the development component is not properly addressed. The Europeanisation strategy represented by the European Neighbourhood Policy and the ECT insists in regulatory aspects, without recognising the particularities of MPCs, some of which are important hydrocarbon producers for whom unbundling policies is very difficult to implement without compromising their traditional engine of growth. A differentiated RES-focused approach built upon the MSP and Directive 2009/28, together with specific provisions in ENP Advanced Status (for instance with Morocco and, in the future, Tunisia) could prove a better strategy in the short run.

Based on the arguments presented above, any agenda related to RES promotion in MPCs over the next 18 months would have to include:

1. A clear and comprehensive strategy that links RES deployment with economic development in MPCs;
2. Efforts to foster absorption capacities at both the industrial and regulatory levels;
3. Guarantees that some industrial processes will take place in MPCs and that RES deployment is increasingly accompanied by industrial delocalisation;
4. The fight against energy poverty on the MSP agenda;
5. A credible institutional framework for trans-Mediterranean green electricity flows that is attractive to both MPCs and European investors;
6. Clarification of the role of the UfM's Secretariat and the European Commission in advancing the MSP; the depoliticisation of the Secretariat for it to become an operational agency for RES projects.