LUCA RUGGIERO

RENEWABLE ENERGY AND THE EURO-MEDITERRANEAN PARTNERSHIP FOLLOWING THE “ARAB SPRING”
THE MEDRING AND MEDITERRANEAN SOLAR PLAN PROJECTS

Abstract – Ever since the Euro-Mediterranean Conference held in Barcelona in 1995, energy cooperation has been numbered among the key themes of the Euro-Mediterranean Partnership. However, it was not until the fifth Euro-Mediterranean Ministerial Conference on Energy, held in Limassol in 2007, that the general framework of the energy partnership was established and the Priority Action Plan for Euro-Mediterranean Energy Cooperation 2008-2013 was approved. Through the PAP, energy policy has acquired a central role in the Euro-Mediterranean Partnership and become an essential part of European Neighbourhood Policy. It focuses on three main areas: to pursue the integration of energy markets in the region; to promote sustainable development in the energy sector; and to develop initiatives of common interest in key areas such as infrastructure extension, investment financing and research and development. The main goal is to create an integrated Euro-Mediterranean energy system based on cooperation in the field of renewable energy. The two central projects launched to achieve this goal are the Mediterranean Electricity Ring (MED-RING), designed to set up a continuous ring around the Mediterranean formed by national energy networks, as part of the Trans European Energy Networks (TEN-E); and the Mediterranean Solar Plan (MSP), launched in 2008 in the framework of the Union for the Mediterranean (UfM) with the objective of creating an additional 20 GW of renewable energy production capacity and achieving significant energy savings throughout the region by 2020. The popular uprisings in early 2011 in North Africa and the Middle East (MENA) have deeply affected this scenario, negatively impacting various aspects of Euro-Mediterranean energy cooperation and related projects.
The instability of the MENA region and considerations regarding cooperation in the renewable energy field. – The "Arab Spring," with its riots that struck the north African countries in 2011 and subsequently spread to Jordan, Syria and the Persian Gulf, has profoundly altered the geopolitical balance of the Mediterranean's southern shores and the MENA region more generally, aggravating its conditions of instability (1). These uprisings in search of equality, human rights, social justice and dignity involved parts of the Arab world that vary significantly in their socio-economic and political conditions; countries that are rich in hydrocarbons and/or potential sources of renewable energy but characterized by imbalances in terms of power, political and religious institutions and socio-economic development that seriously hamper the achievement of these aims (Romagnoli and Mengoni, 2013). Given these conditions, we can likely expect a slow and unpredictable process of transition accompanied by a long period of instability. In the meantime, this instability is contributing to the spread of terrorism and facilitating its transfer from the Middle East to the African continent (Torelli and Varvelli, 2013; Abdelali, 2013; Weinberg, 2013).

Certainly there has been no shortage of attempts to bring about democratic transition, as with the monarchies of Jordan, Morocco and Persian Gulf countries, as well as more or less significant concessions as made by the new Tunisian and Algerian governments. Nevertheless Egypt and Libya, which seemed to have entered into a democratization phase, continue to be polarized by increasingly harsh clashes between Islamists and secularists that threaten and delay the prospect of stable and democratic government. The ongoing conflict in Syria, which is ever more devastating and bloody despite international efforts at mediation, casts a destabilizing effect on the precarious balances of neighboring areas such as Palestine, Lebanon and Iraq; at the same time, it also exacerbates tensions between the strategic interests of regional powers such as Iran, Saudi Arabia and Turkey, as well as those of global players from the United States and Russia to Europe and China (Al Gharbi, 2013; Dalacoura, 2012; Guofu, 2013; Lesch, 2013).

There appear to be very serious risks associated with this spreading destabilization, especially if we consider the fundamental geopolitical role played by the Mediterranean, a role that has grown dramatically in the last several decades, and the inadequacy of European policy addressing this area.

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1 MENA (Middle East and North Africa) is an acronym indicating the geopolitical region from North Africa to the Middle East; according to the World Bank, it includes Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Malta, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, the United Arab Emirates, the West Bank and the Gaza Strip, and Yemen. The most recent estimates suggest that these countries hold a total of 52% of the world's proven oil reserves and 47.4% of its natural gas reserves (World Bank, 2013; BP Statistical Review of World Energy 2013) and have vast potential solar energy resources as well (Tsikalakis et al, 2011).
(Gaiser, Hribar, 2012; Diwan, 2013). The most conspicuous examples are the weakness of the Euro-Mediterranean Partnership and the limited results achieved thus far by the Union for the Mediterranean (UfM), the European Neighbourhood Policy and the EU's recent approach defined as "more for more" (2). This is especially true given that the funding and investment supporting European policy is modest compared to the funds deployed by other regional and extra-regional actors, from Persian Gulf countries to China (Fawcet, 2013). Not to mention that some of the most important EU actors in the Mediterranean have had their role overshadowed by the crisis in the Eurozone (Bsiri, 2012; Fregonese, 2013). This inadequacy has affected most of the various plans and projects for Euro-Mediterranean cooperation and especially those aimed at valorizing the potential energy complementarity between the EU, the southern Mediterranean and the other MENA-region countries (Balfour, 2013, Woertz, 2012). However, the most serious interference has been suffered by multilateral programs with a wide scope, namely plans and projects designed to develop interconnections between the energy systems of the countries bordering the Mediterranean and projects focused on exploiting renewable energy sources, which are seriously struggling to take off (Brauch, 2012).

The Euro-Mediterranean Partnership and initiatives in the energy sector. – An outline of the most significant political initiatives that have contributed to numbering energy cooperation among the key sectors of the Euro-Mediterranean Partnership can significantly aid in understanding both the motivations driving the main renewable energy projects, which I will examine in the following pages, and the geopolitical context in which these projects have developed (Cambini and Franzi, 2014).

First of all, it should be noted that complementarity and energy cooperation have been included among the key themes of the Euro-Mediterranean Partnership since the Declaration adopted at the Euro-Mediterranean Conference in Barcelona, November 27-28, 1995 (Cirielli, 2006, p. 46 ). Indeed, they are so relevant that point B of the Declaration on “Economic cooperation and concerted action” states that the partners “acknowledge the pivotal role of the energy sector in the economic Euro-Mediterranean partnership and decide to strengthen cooperation and intensify dialogue in the field of energy policies. They also decide to create the appropriate framework conditions for

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2 Launched in 2011, this approach aims to support democratic change in the southern part of the Mediterranean by offering countries better access to economic aid and the unified EU market in exchange for more significant reforms in terms of democracy, human rights and freedom of expression (Rossi, 2012; Teti, 2012; Laremont, 2013).
investments and the activities of energy companies, cooperating in creating the conditions enabling such companies to extend energy networks and promote link-ups.” This patent political orientation arose from an implicit recognition:
- that European countries are structurally dependent on energy imports (3);
- that there are abundant reserves of oil and natural gas in North African countries and that these countries are geographically proximate (4);
- that certain countries, first and foremost Egypt and Turkey (to be joined in the future by several Balkan countries and the Eastern Partnership) play strategic roles in the transportation of hydrocarbons from the Middle East, Black Sea and Caspian Sea to the Mediterranean;
- that renewable energy sources, particularly solar, represent a high-potential field throughout the MENA region (Pelzman 2012).

The EU explicitly reaffirmed this awareness of the opportunities represented by energy complementary with neighboring Mediterranean countries in the first meeting of the Euro-Mediterranean Energy Forum held 1997 in Brussels. The following year, another meeting in Brussels, this time of the Euro-Mediterranean Ministerial Conference on Energy, adopted the Energy Forum Action Plan for 1998-2002 that extended cooperation to political, administrative and industrial spheres and identified tools and priority objectives for supporting the integration of energy markets. However, it was only with the third and fourth Euro-Mediterranean Ministerial Conferences on Energy, held respectively May 21, 2003 in Athens and December 1, 2003 in Rome, that the first significant results were achieved. Specifically, the first conference defined goals for the construction of the Euro-Mediterranean Energy Community in more detail, while the second gave rise to several important agreements, including a declaration of intent to establish the Rome Euro-Mediterranean Energy Platform (REMEP) (5). The Mediterranean Working Group on Electricity and Natural Gas Regulation (MEDREG), another important entity supporting the Euro-Mediterranean Energy Partnership, was founded May 29, 2006 in Rome. It comprises 23 countries' energy

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3 According to Eurostat data from 2013, the 27 EU member states (excluding Croatia, the 28th member state since July of 2013) display a level of energy dependence (net imports divided by the sum of gross consumption) of approximately 53.8%, a rate that EU estimates forecast to increase in the mid-term period.

4 In the 2012/2013 two-year period, EU countries received approximately 14% of their imports of crude oil and petrol products and slightly less than 20% of their natural gas imports from North African countries (the other main supplier of gas is the Russian Federation, which provides approximately 26%).

5 REMEP, established in 2004, is tasked with promoting initiatives to facilitate the development of Euro-Mediterranean area energy cooperation.
regulatory bodies and is tasked with promoting cooperation between the authorities of EU member states and those of other Mediterranean countries, as well as harmonizing regulatory procedures in the energy market.

Finally, the fifth Euro-Mediterranean Ministerial Conference on Energy, held December 17, 2007 in Limassol (Cyprus), served to set a general framework for the energy partnership. In this conference the ministers specifically confirmed that “the shared objectives of ensuring energy security, environmental sustainability, technology cooperation, and socio-economic development remain a priority of the Euro-Mediterranean Energy Partnership” and reasserted the importance of making “full use of the instruments available under the European Neighbourhood Policy.” They also approved the Priority Action Plan (PAP) Euro-Mediterranean Energy Cooperation 2008-2013, which had been prepared by a team of experts working with the Euro-Mediterranean Energy Forum. The PAP established three priority areas for future regional and sub-regional cooperation in the Mediterranean region, each accompanied by pathways, goals, projects, initiatives and actions: 1. to ensure a more effective harmonization of energy markets and move toward integration; 2. to promote sustainable development in the energy sector, and; 3. to implement mutually beneficial initiatives in key sectors, including infrastructure, research and development.

The PAP approved by the Limassol conference asserted the need “to develop a natural gas transmission and distribution infrastructural network with efficient financing mechanisms, including Public-Private Partnerships” and “to assist the Mediterranean Partner Countries, wishing to do so, in the establishment of a framework favourable to private investment and industry driven exploration, production and interconnection of related infrastructures.” In particular, however, it reiterated the conclusions expressed in the European Commission's 2006 Green Paper, which had numbered energy policy among the central foci of the Euro-Mediterranean Partnership, framing it as an essential and expanding component of European Neighbourhood Policy (ENP) (European Commission, 2006; Cierco, 2013). The key role granted to energy policy became even more evident in the following years as the ENP, originally born as a bilateral policy agreement between the EU and individual partner countries, gradually expanded its reach in response to the new emphasis on regional multilateral cooperation promoted beginning in 2006 through the Union for the
Mediterranean (UfM) \(^6\) and in 2009 through the Eastern Partnership (EP) (Darbouche, 2011; Martín, 2012; Gillespie, 2013) \(^7\).

These initiatives, along with the political and economic agreements they generated, have contributed to cultivating a climate of energy sector cooperation between the EU, the vast southern component of the Mediterranean and the regions, from the Middle East to the Black Sea, that more or less directly revolve around it. Above all, they laid the groundwork for implementing Euro-Mediterranean energy complementarity, albeit through an agonizingly slow process characterized by continuous setbacks and rare moments of acceleration. The results so far have been somewhat limited, especially in terms of multilateral cooperation: certain actors such as Turkey and Maghreb-area countries, and sectors such as hydrocarbons, have been brought in while many others remain on the sidelines (Kausch, 2013). Efforts to enlarge the scope of this cooperation have been seriously hampered by the geo-economic and geopolitical uncertainty spread across the Mediterranean by the Arab Spring events and recent economic crisis (Bahgat, 2012; Cassarino and Tocci, 2012). The only area to have escaped nearly unscathed is the part of the eastern Mediterranean bordering the Black Sea in which Turkey and the PO play a decisive role. Even in this region, however, conflicts have become increasingly heated following the Russian annexation of the Crimea, especially tensions between Russia’s ambitions and the role that regional players would like to secure for themselves.

*Geopolitical problems and multilateral plans for an integrated Euro-Mediterranean energy system.* – For several years now, both the creation of an integrated energy system and the development of cooperation in the renewable energy field have constituted central and interrelated policy objectives of the Barcelona Process (Bosse, 2011). These objectives revolve around:

- The Mediterranean Electricity Ring (MED-RING), which was implemented in large part thanks to the impetus granted by the Priority Action Plan Euro-Mediterranean Energy Cooperation 2008-2013 approved by the December 2007 Ministerial Conference in Limassol;

\(^6\) The UpM includes all the EU member states and 16 southern Mediterranean countries: Albania, Algeria, Bosnia and Herzegovina, Egypt, Israel, Jordan, Lebanon, Mauritania, Monaco, Montenegro, Morocco, the Palestinian Authority, Syria, Tunisia and Turkey.

\(^7\) The Eu launched the Eastern Partnership in Prague on May 7, 2009 to promote political and economic relations between the EU and several post-Soviet states in Eastern Europe (namely the Ukraine and Moldova, as Belarus was expelled after the 2011 Warsaw summit) and the South Caucasus area (Azerbaijan, Armenia and Georgia) possessed of strategic importance. Since its inception, this energy cooperation project has acquired a central role as a result of the political support it has granted to the development of the EU’s proposed “Southern Corridor” for transporting hydrocarbons from the Caspian region and Middle East to Europe.
The Mediterranean Solar Plan (MSP), a Union for the Mediterranean initiative launched during the July 13, 2008 summit in Paris that was attended by 43 EU member states; this summit aimed to develop north-south energy linkups and produce an additional 20 GW (gigawatts) of energy from renewable sources by 2020 through a combination of photovoltaic (PV), concentrated solar (CSP) and wind farms.

Given its complexity, MEDRING is unquestionably one of the most ambitious projects initiated as part of the Barcelona Process: it aims to link up the electrical transmission and natural gas transport infrastructures of 24 different countries bordering the Mediterranean (8). It would create a continuous loop made up of national networks that the EU proposes to integrate into the Trans-European Energy Networks (TEN-E) system. The long-term plan is then to extend this ring so as to link the European network to the entire MENA region, thereby exploiting the energy potential of the Mediterranean Basin in a much broader context (Duhamel and Beaussant, 2011; El Khattam, Lenzi, Mostafa and El-Salmawy, 2013). The original plan, drafted in 2003 by a consortium of European and southern Mediterranean partners, was subsequently updated by the MED-EMIP (Euro-Mediterranean Energy Market Integration Project) and presented to the European Commission in 2010 (9). Having taken stock of the limited progress made since 2003, this revised version outlines specific proposals for overcoming the problematic elements that had hampered the original project.

A detailed analysis of the results of the MED-EMIP survey shows that there has been substantial progress in linking up and integrating infrastructures and energy systems in one part of the Mediterranean region, the section stretching from Turkey to Europe and the Maghreb countries, while the rest of the southern area (including Libya, Egypt, Israel, the Palestinian Territories, Jordan, Syria and Lebanon) has lagged behind. The networks continue to be quite fragmented in this area, and not only because the transmission networks remain largely incompatible – other hindering factors include the difficulty of standardizing energy market regulations and the fact that there is not enough electricity available to meet domestic demand in various countries and simultaneously engage in substantial exportation. These factors operate alongside intractable political tensions that have been exacerbated by the explosion of the "Arab Spring." This particular obstacle has proved so

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8 Although Bulgaria, Jordan and Portugal do not border the Mediterranean, they are involved in the MEDRING project due to their important position in completing the ring.
9 MED-EMIP is a project funded by the European Commission to promote the EU’s many initiatives centered on Euro-Mediterranean cooperation in the energy field.
intractable that the above-cited study treats the completion of the southern part of the ring as an ideal goal to achieve at some point far beyond 2020 rather than a truly feasible mid-term objective (Escribano, 2010). Connections linking the national networks of Syria with Lebanon, Libya with Tunisia, Turkey with Syria, and Israel with neighboring countries are particularly inadequate or missing altogether, and future plans for creating these links appear difficult to execute. Then again, except for the pipeline that connects the networks of the three Maghreb countries to the European Union across the Gibraltar, even some of the major links spanning the Mediterranean have yet to be created (MED-EMIP, 2010, pp.196 -204) (10).

The problems surrounding the completion of MEDRING are having serious repercussions on the Euro-Mediterranean energy partnership and casting a pall over efforts to collaborate in the alternative energy field. All of the most recent Energy Partnership acts refer to this fact, and go on to reiterate the strategic importance of coordinating MEDRING with the Mediterranean Solar Plan in order to take advantage of alternative energy sources in the southern Mediterranean area. Indeed, the two projects converge in terms of their objectives and multilateral geopolitical agreements, which may actually help to enhance the economic and operational effectiveness of the entire Mediterranean energy network. On the other hand, it must be noted that the industrial initiatives generated by the two projects enjoy the financial and technical support of the European Commission (11) and are further fueled by the European Parliament and Council Directive 2009/28/EC that sets targets for energy from renewable sources as a percentage of gross final consumption, to be met in EU countries by 2020 (12).

10 Other plans for spanning the Mediterranean include: Italy (Sicily)/Tunisia; Italy (Sicily)/Libya; Algeria/Italy (Sardinia); Algeria/Spain; Italy/Malta; Italy/Montenegro; Italy/Albania; Italy/Croatia and Italy/Greece.

11 The 2009/28/EC Directive lays out the climate change and energy objectives member states should comply with by 2020 (known as the 20-20-20 targets), namely: 1. reducing CO² emissions to at least 20% below 1990 levels; 2. deriving 20% of energy consumption from renewable sources; 3. a 20% reduction in primary energy consumption as compared to projected levels, to be achieved by improving energy efficiency. However, Article 9 of the Directive provides for the possibility of mitigating these restrictions by establishing "joint projects between Member States and with third countries" that would generate energy abroad and transfer it through south/ north Mediterranean corridors (Hanrahan, 2013).

12 The European Commission provides both financial support and technical assistance in designing and implementing capacity-building projects developed in the context of the Mediterranean Solar Plan, including projects launched through the Neighbourhood Instrument Facility, provided that they are designed to promote: 1. the production of renewable energy in the Mediterranean area; 2. convergence among national energy policies; 3. the development of interconnections among energy infrastructures in the region's north and south 4. the creation of a regulatory environment that facilitates the rapid development of renewable energy in the region and the formation of an integrated Euro-Mediterranean energy market.
This directive and Article 9 in particular have represented an important driving force, especially in relation to the initiatives launched under the Mediterranean Solar Plan. One clear illustration of its significance is the many high-profile industrial alliances that have been established since 2009, such as the Desertec Industrial Initiative (DII), MedGrid and, most recently in 2012, Res4Med (Renewable Energy Solutions for the Mediterranean). These alliances are propelled by similar or convergent goals and objectives that can be briefly summarized as follows: 1. to promote and create a single trans-Mediterranean energy network aimed at linking the EU with the countries of North Africa and the Middle East (MENA), as well as a single, fully integrated energy market that would enhance efficiency and energy security in the entire coverage area; 2. to develop renewable energy, especially solar power in the desert areas, and to generate the regulatory, infrastructural and financial conditions in the EU-MENA area that are needed for a large-scale diffusion of renewable energy plants and systems (Hafner and Tagliapietra, 2012; Research & Markets, 2013).

Diagram 1

The first industrial initiative was the DII, which was launched in Monaco in 2009 by a consortium of private companies, mainly German; it is aimed at laying the necessary groundwork to cultivate solar and wind energy production and transmission in the EU-MENA area in order to meet local energy needs while passing some of the energy produced on to the European network (13). The same year, 2009, the non-profit Desertec foundation was also established. As a participant in the DII, this foundation acts as a forum for spreading information, exchanging ideas and knowledge and providing support with technology transfer, scientific cooperation and planning. It focuses on issues related to the sustainability of energy supplies, climate change, water scarcity and the depletion of fossil fuels in a region such as the MENA that is characterized by such highly fragile environmental equilibria (14).

Diagram 2

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13 The first part of the DII strategy paper "Desert Power 2050," titled "Perspectives on a Sustainable Power System for EU-MENA," demonstrates the feasibility and economic viability of this system, 90% of which is based on renewable energy. The second part, "Getting Started," outlines the technological, economic and political elements of the pathway for establishing an interconnected energy system in the EU-MENA area.

14 Desert Power proposes a combination of energy sourcing for 2050 that includes 91% from renewable sources and 9% from natural gas. Wind power is planned to contribute 53% (48% on-shore and 5% off-shore) and solar power 25%, with plants concentrated in Southern Europe and the MENA region (16% of CSP would be almost wholly derived from the MENA region, while 9% of solar PV would come from the MENA region and southern Europe). The remainder of the energy mix would be derived from hydropower, biomass, geothermal and other renewable technologies.
The other industrial initiative, MedGrid, was born in Paris in 2010 with the support of the French Government (the Agence Française de Development signed a strategic and financial agreement with MedGrid, making it a partner). The main goal of MedGrid is to create a network for transferring electricity between the two shores of the Mediterranean; synergistically, it also seeks to cultivate energy production in the MENA region from renewable sources, mainly solar. The last of these initiatives, leaner and more organizationally agile, is the non-profit association Res4Med. Introduced in Rome in 2012, this association brings together (predominantly Italian) commercial firms, research projects and public and private entities.

These initiatives were developed in large part in response to forecasts that energy consumption and investment in the countries of the southern Mediterranean area were set to increase (15). For some years now and especially following 2011, however, the reality is proving to be quite different than experts anticipated, with consumption and investment struggling to expand and industrial projects and alliances faltering, unable to find workable collaborators among the governments of southern Mediterranean countries that have been destabilized by the perpetual shocks of the Arab uprisings (Bergasse, 2013). The situation is aggravated by the fact that the EU continues to allocate inadequate financial resources to these projects, hampered as it is by one of the worst economic crises since WWII, a crisis rendered particularly difficult by a host of overlapping economic and political problems that continue to obscure potential avenues of recovery.

**Conclusions.** – With the difficulties plaguing Euro-Mediterranean energy cooperation and renewable energy in particular, prospects for effectively exploiting the potential energy complementarity between EU countries and the MENA region appear increasingly remote. Indeed, especially following the "Arab Spring", the most significant projects involving the Mediterranean’s north and south shores have been proceeding very slowly and often encounter serious setbacks caused in particular by political instability and declining governmental investment (Ayoob, 2012; Ayadi, 2013). After being launched to widespread praise and high expectations, multilateral projects such as MEDRING and the Mediterranean Solar Plan, along with the industrial alliances that have grown up around them, are struggling to take off, hindered by a context in which multilateral cooperation has

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15 Investments of approximately 120-160 billion Euros in the solar and wind power plants alone by the year 2030, for a more than 40% increase in their additional installed capacity (OME, 2012; Weissenbacher, 2012).
been undermined and regional integration processes languish (16). Collaboration has also deteriorated among the industrial alliances promoted by the EU’s main member states, however: though they are theoretically ready to contribute, these countries quite often display divisive national interests that constitute further impediments in the already politically and operationally challenging context of the MENA region. For instance, in 2013 several leading industrial partners (Siemens and Bosch) and the Desertec foundation itself pulled out of the DII consortium, thus casting some of the projects it had launched in Morocco, Algeria, Tunisia, Egypt and Jordan into crisis (Cordesman, Burke, 2012).

The other face of the EU’s Mediterranean policy, represented by energy cooperation with Turkey, the Balkan countries and the Eastern Partnership, has been less affected by the Arab uprisings, but it is precisely this fact that grants it increasingly importance in the context of EU energy policy (Kaya, 2013). Though these countries do not play a key role in projects to develop renewable energy resources or the Mediterranean Solar Plan in particular, they do have a highly significant part in MEDRING. Not to mention that they are responsible for transporting ever-larger quantities of hydrocarbons from the Caspian Basin and Middle East into the Mediterranean area and Europe (Sartori, 2012; Winrow, 2013). In so doing, they contribute to the energy diversification of European countries, allowing them – following the accidents caused by the Fukushima earthquake – to pursue their plans to reduce nuclear energy use and to curb Russia’s attempts to strengthen its hegemonic control over Europe’s energy options.

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16 The most recent UpM summit, held in Brussels in December of 2013 and focused entirely on cooperation in the renewable energy field, reaffirmed the MSP’s central role in ensuring stability and promoting prosperity in the Mediterranean region; at the same time, however, it also acknowledged the difficulty involved in actually putting the initiatives that drive the major projects into effect.


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Università di Catania, Dipartimento di Scienze Politiche e Sociali, email: lruggiero@unict.it