MEDREG

Co-funded by the European Union

Shaping the Euro-Mediterranean Energy Market: Progress and Prospects

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WORKSHOP REPORT

1. Introduction

The "Shaping the Euro-Mediterranean Energy Market: Progress and Prospects" workshop brought together policy makers, regulators, and industry leaders from across the Mediterranean region. Held under the patronage of the Day of the Mediterranean, the event celebrated shared heritage and fostered cooperation across this vital area.

The Euro-Mediterranean region, with its rich energy resources, strategic geopolitical location, and growing population, is poised to play a pivotal role in the global energy transition. As the world shifts towards a low-carbon future, the region's abundant renewable energy potential, coupled with its historical reliance on fossil fuels, presents significant opportunities and challenges.

MEDREG, a key player in the region's energy landscape, has been instrumental in driving regulatory cooperation and promoting the development of a harmonized and efficient energy market. By fostering collaboration among energy regulators, MEDREG has addressed cross-border issues, which facilitate market integration, and promote the adoption of best practices.

The workshop explored critical topics:

- **Regulatory Alignment**: Participants discussed the importance of harmonizing regulatory frameworks to facilitate cross-border energy trade and investment. By harmonizing regulations, the region can create a more level playing field for market participants, attract foreign investment, and promote the development of regional energy markets.
- **Infrastructure Investment**: Strengthening energy infrastructure, including pipelines, power lines, and storage facilities, enhance energy security, improves efficiency, and facilitates renewable energy integration.
- **Renewable Energy Deployment:** Strategies for accelerating the adoption of renewable energy sources, such as solar, wind, and hydro power were explored. Emphasis was placed on grid modernization, energy storage, and innovative market mechanisms to address variability and intermittency challenges.
- **Green Hydrogen Potential:** The potential of green hydrogen as a clean energy carrier was a key topic of discussion. Green hydrogen, produced through electrolysis using renewable energy, can play a crucial role in decarbonizing various sectors, including transportation, industry, and power generation. The workshop explored the technical, economic, and regulatory aspects of green hydrogen production and utilization.
- **Digital Technologies:** The importance of digital technologies in optimizing energy systems, improving grid efficiency, and enabling the integration of distributed energy resources was emphasized. By leveraging digital solutions, such as smart grids, advanced metering infrastructure,

and data analytics, the region can enhance energy security, reduce costs, and improve the overall performance of its energy systems.

By fostering collaboration, sharing knowledge, and exploring innovative solutions, the workshop aimed to contribute to the development of a sustainable, resilient, and integrated Euro-Mediterranean energy market. The outcomes of this event will inform future policy decisions, investment strategies, and regulatory frameworks, ensuring that the region can seize the opportunities and address the challenges of the energy transition.

The European Commission wholeheartedly welcomes such collaboration, eagerly anticipating working alongside the Mediterranean region on the Trans-Mediterranean Energy and Clean Tech Initiative (T-MED). Recognizing the critical need for a unified Mediterranean energy community, the EU is committed to strengthening its ties with all partners, including governments, private sectors, and civil societies, to transform the T-MED ambition into a tangible reality. The EU views MEDREG as a pivotal player in this endeavour, acknowledging its crucial role in fostering regional energy cooperation and facilitating the decarbonisation pathway outlined in the T-MED initiative. This collaborative effort will not only pave the way for a prosperous future for all Mediterranean nations but also enhance economic competitiveness, promote socio-economic development, and generate new and green job opportunities across the region.

A first panel featured MEDREG member regulators and members of the European Commission from DG NEAR and DG ENER showcasing their perspectives, highlighting what is needed to satisfy the growing energy demand in the region in a sustainable way, while also showing the importance of regional cooperation. Meanwhile, the second panel found representatives of companies and other regional organisations building a dialogue on the delivery of the Trans-Mediterranean Energy Initiative through the deployment of Green Hydrogen and Clean Technologies.

2. First Panel on "Harnessing Regional Regulatory Cooperation to Drive the Sustainable Energy Transition in the Mediterranean"

The first panel consisted mainly of panellists delivering a speech, highlighting MEDREG's role in their respective national framework, as well as the efforts they foresee in the future in terms of collaboration with the greater good being the end goal.

Through that panel, MEDREG emerged as a key platform for fostering collaboration among energy regulators in the Mediterranean region. By promoting knowledge sharing, capacity building, and harmonization of regulatory frameworks, MEDREG has played a crucial role in driving the energy transition.

MEDREG has been instrumental in aligning regulatory frameworks across different countries to facilitate cross-border energy trade and investment. By developing common standards and methodologies, MEDREG has contributed to creating a more level playing field for market participants and stimulating economic growth.

Furthermore, MEDREG has been actively involved in capacity building initiatives, organizing training programs, workshops, and study visits to enhance the technical and regulatory skills of energy regulators. By providing technical assistance and support, MEDREG has empowered member countries to develop and implement effective energy policies and regulations.

In addition to its focus on regulatory harmonization and capacity building, MEDREG has also dedicated significant efforts to promoting market integration within the region. By fostering competition, transparency, and consumer protection, MEDREG has played a pivotal role in the development of regional energy markets. The organization has facilitated the integration of renewable energy sources into the grid, ensuring a sustainable and diversified energy mix. Furthermore, MEDREG has encouraged the development of cross-border infrastructure, such as pipelines and interconnectors, to strengthen regional energy connectivity and enhance market liquidity. These initiatives have not only contributed to the overall efficiency and reliability of the regional energy system but have also benefited consumers through lower energy prices, increased choice, and improved energy security.

Several countries in the Mediterranean region have benefited from MEDREG's support in their energy transition efforts. For example, Egypt has leveraged MEDREG's expertise to strengthen its regulatory framework for the gas market, improve the efficiency of its energy sector, and develop a robust regulatory framework for renewable energy. Algeria has collaborated with MEDREG to optimize its natural gas transportation network, set wholesale prices, and create a more conducive environment for energy investments. Jordan has worked with MEDREG to develop a robust regulatory framework for distributed renewable energy, energy storage, and smart grid technologies, and to promote regional energy markets and cross-border cooperation.

The European Union (EU) recognizes the importance of the Mediterranean region in the global energy landscape and is committed to fostering cooperation between the EU and its neighboring countries. The EU supports regional initiatives, such as MEDREG, that promote energy security, sustainability, and market integration. The EU's Energy Union strategy aims to ensure a secure, sustainable, competitive, and affordable energy supply for EU citizens and businesses. By working closely with MEDREG and other regional partners, the EU seeks to strengthen energy cooperation, promote the deployment of renewable energy sources, and support the development of a low-carbon economy in the Mediterranean region.

The Mediterranean region is of strategic importance to the EU, both geopolitically and economically. The region is a key partner in the EU's efforts to diversify its energy supply, reduce its dependence on fossil fuels, and promote climate action. By fostering closer cooperation with its Mediterranean neighbors, the EU can contribute to the region's energy security, economic development, and environmental sustainability.

The EU's engagement with MEDREG is significant for its broader strategy to foster sustainable energy development and climate action in the Mediterranean region. By supporting MEDREG, the EU plays a pivotal role in strengthening the organization's capacity to drive the energy transition and promote energy security. This collaboration empowers MEDREG to implement impactful projects and initiatives, ultimately contributing to the region's energy goals and fostering a more sustainable and resilient energy landscape.

Through this partnership, the EU actively contributes to the decarbonization of the Mediterranean region, helping to reduce greenhouse gas emissions and mitigate the impacts of climate change. The EU's support enables MEDREG to promote energy efficiency, renewable energy integration, and grid modernization, thereby fostering a cleaner and more sustainable energy mix. Additionally, the EU's engagement helps to diversify energy sources, reduce reliance on fossil fuels, and enhance energy security in the region.

By leveraging its expertise and resources, the EU actively supports specific projects and initiatives that align with the region's energy goals. These projects may include the development of renewable energy projects, the deployment of energy-efficient technologies, and the strengthening of regional energy cooperation. The EU's involvement fosters knowledge sharing, capacity building, and technology transfer, empowering the region to adopt innovative solutions and accelerate its energy transition.

3. Second Panel on “Delivering the Trans-Mediterranean Energy Initiative: Deploying Hydrogen and Clean Technologies”

The second panel discussion on "Delivering the Trans-Mediterranean Energy Initiative: Deploying Hydrogen and Clean Technologies" consisted of a Q&A discussion held by the moderator with the panellists. The exchanges held during the second panel underscored a significant shift in the region's energy landscape. A strong emphasis on renewable energy sources, driven by ambitious national targets and the need to reduce fossil fuel dependence, is driving this transformation.

While the focus is on renewable energy sources like solar and wind power, natural gas continues to play a crucial role in the ongoing energy transition. It serves as a bridge fuel, offering a cleaner alternative to coal and contributing to immediate emissions reductions. This is particularly important in regions where coal-fired power plants still dominate the energy mix, as natural gas can quickly displace coal, leading to a significant decrease in greenhouse gas emissions.

Furthermore, the existing natural gas infrastructure, including pipelines, storage facilities, and distribution networks, can be strategically leveraged to facilitate the transport and distribution of green hydrogen. This presents a significant opportunity to repurpose existing assets and accelerate the integration of hydrogen into the energy system.

From the private sector's side, companies know that the role of the regulator is yet to grow, especially from the perspective of the infrastructure development. However, flexibility will have to be key. An opportunity is yet to be sought after in North-South interconnections, and that lies in the east Mediterranean area. However, investments in interconnections in that area, which is rich in natural gas, should be focused on its capability of transporting natural gas as well as hydrogen and new vectors of energy. More energy corridors can be considered, while we still ensure that the energy industry functions correctly, from the relevance of natural gas perspective for the present period.

As mentioned, green hydrogen is emerging as a key technology for decarbonizing various sectors, including transportation, industry, and power generation. The panel emphasized the importance of developing a robust green hydrogen value chain, encompassing production, storage, transport, and end-use applications. This holistic approach is crucial to ensure the successful and widespread adoption of green hydrogen as a clean energy solution.

However, significant challenges remain that hinder the rapid deployment of green hydrogen. High investment costs associated with large-scale green hydrogen production facilities, such as electrolysers, pose a significant barrier for investors. Additionally, the development of a comprehensive infrastructure for hydrogen production, storage, and distribution requires substantial investment. This includes building pipelines, storage facilities, and refuelling stations, which can be a costly and time-consuming endeavour.

Investment in green hydrogen seems overwhelming, however, if one can break down this problem into smaller problems, it can be easier to understand the core of the barrier's manner. Firstly, green hydrogen should be considered as a product, but upstream, the challenge is to ensure that renewable energy is affordable. It is true, as mentioned on numerous occasions, that the region has a huge potential in terms of renewable energy production. But to break the problem into smaller parts, we need to know how to unlock that potential.

Furthermore, there are two aspects to be considered, the first being the need to pull in investors at scale, since the investment needs are huge. The second aspect is that green hydrogen is still a relatively new industry, where first movers will be taking big risks.

Everything is led by policy by nature, and this is the solid ground on which investors can feel comfortable. To further ensure that the investor is comfortable, risk management should be addressed, where blended finance tools can go beside financing, in the form of grants and market rate loans. Lastly, guarantees from financing bodies can also be made, to ensure that the risk is reduced as much as possible.

Furthermore, the lack of well-defined regulatory frameworks in many regions creates uncertainty for investors and hinders the development of the green hydrogen market. Clear and consistent regulations are needed to address safety concerns, ensure grid stability, and promote fair competition in the hydrogen market. These regulations should also provide incentives for investment and support the development of a robust market for green hydrogen.

Addressing these challenges requires a resilient method. Each stakeholder has a role to play. Governments can provide financial incentives, such as tax credits and subsidies, to reduce the upfront costs of green hydrogen projects. They can also invest in research and development to improve the efficiency and reduce the cost of hydrogen production technologies. Additionally, establishing clear and supportive regulatory frameworks is essential to create a stable and predictable environment for investors.

Collaboration among various stakeholders is crucial for the successful deployment of clean energy technologies. It necessitates strong collaboration between governments, regional organizations, and international institutions. This includes creating enabling policy frameworks that incentivize the deployment of clean energy technologies, developing clear and consistent regulations to ensure the safe and efficient operation of the energy system, supporting research and development of innovative clean energy technologies, and investing in capacity building and skills development programs.

List of Speakers (In order of appearance):

Mr. Abdellatif Bardach

President of MEDREG and President of the National Electricity Regulatory Authority (ANRE), Morocco

Mr. Gert Jan Koopman

Director General at DG NEAR – European Commission

Mrs. Ditte Juul Jørgensen

Director General at DG ENER – European Commission

Mr. Hasan Ozkoc

Director at MEDREG Secretariat

Mr. Mohamed Abdelaziz

CEO at the Gas Regulatory Authority (GASREG), Egypt

Mr. Rachid Nadil

President at the Hydrocarbon Regulatory Authority (ARH), Algeria

Mr. Mohamed Al Maayah

Board Member at the Energy and Minerals Regulatory Commission (EMRC), Jordan

Mr. Mohamed Mahroug

Board Member at the National Electricity Regulatory Authority (ANRE), Morocco

Mr. Matteo Fumerio

Team Leader for Energy Security at DG ENER, European Commission

Ms. Ruta Zarnauskite

Head of Unit Regional Cooperation Neighbourhood South at DG NEAR, European Commission

Mr. Stefano Besseghini

Permenant Vice President at MEDREG and President of the Regulatory Authority for Energy, Networks and Environment (ARERA), Italy

Mr. Florian Ermacora

Head of Unit at the Directorate for Neighbourhood South, North Africa at DG NEAR, European Commission

Ms. Houda Ben Jannet

General Director at the Organisation Méditerranéenne de l'Energie et du Climat (OMEC)

Mr. Osama Mobarez

Secretary General at the East Mediterranean Gas Forum (EMGF)

Mr. Fabrizio Mattana

Executive Vice President at Edison

Mr. Tarik Moufaddal

CEO at the Moroccan Agency for Sustainable Energy (MASEN)

Mr. Mohamed Bernannou

Board Member at the National Electricity Regulatory Authority (ANRE), Morocco

Mr. Maxime Meftah

Principal Economist at EBRD

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for a common energy future

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www.medreg-regulators.org

Via Lazzaretto, 3. 20124 Milano - Italy

info@medreg-regulators.org

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