



The Role of Gas in Eastern Mediterranean Economies and the Path to the Energy Transition

Gas plays a crucial role in the energy transition by replacing higher-carbon energy sources and as a partner to renewable energy. As a cleaner, affordable, available and sustainable alternative to coal and oil, it emits significantly less carbon dioxide, which makes it a valuable tool for reducing CO₂ emissions. Additionally, increased use of Gas results in a significant improvement in air quality and health through the reduction of dangerous pollutants like particulate matter, sulphur oxides, nitric oxide, and nitrogen dioxide.

Moreover, its ability to provide a steady and controllable source of energy helps stabilise the grid as the share of intermittent renewable sources like wind and solar increases. This flexibility is vital for addressing the variability in renewable energy production and ensuring a reliable power supply. Additionally, existing natural gas infrastructure, including pipelines and storage facilities, can be adapted at low cost to accommodate lower-carbon fuels, such as hydrogen and renewable methane, further supporting long-term decarbonisation goals.

By leveraging all these attributes, Gas helps to eliminate carbon emissions during the transition to a more sustainable energy system and contributes to advancements in technology that will support a future of cleaner energy sources, human progress and global growth. The International Gas Union (IGU), as a global non-profit organisation, aims to promote the political, technical and economic progress of the gas industry towards a sustainable global energy system. In promoting 'Gas', the IGU fully embraces the potential of natural gas, low-carbon, decarbonised and renewable gases (including hydrogen, biomethane, synthetic gas, and e-methane) to drive an even deeper decarbonisation of the energy system.

The Eastern Mediterranean basin, a historic crossroad of civilisations, has emerged as a crucial hub for natural gas production due to its abundant reserves and strategic geographic location. In recent years, significant discoveries of natural gas fields have been made in this region, notably around Israel, Egypt, and Cyprus. Among the landmark finds are the the Tamar and Leviathan gas fields, discovered off the coast of Israel in 2009 and 2010; Aphrodite field, found in 2011 within Cyprus's Exclusive Economic Zone (EEZ); and Zohr field, discovered off the coast of Egypt in August 2015.

These discoveries have dramatically boosted the region's status in the global energy landscape. Besides these significant finds, the Eastern Mediterranean still holds considerable untapped potential, with estimates suggesting the existence of substantial undiscovered reserves.

This wealth of resources is vital for ensuring energy security in a region characterised by rapidly growing economies and expanding populations. Furthermore, the Eastern Mediterranean's natural gas reserves offer a promising opportunity to supply Europe and other international markets with a cleaner energy source, contributing to global efforts to reduce carbon emissions.

The region's strategic location also enhances its importance as a key transit point for natural gas pipelines and liquefied natural gas (LNG) exports. This positioning not only bolsters its role in the global energy security but also integrates the Eastern Mediterranean into the broader dynamics of the international energy market, potentially shaping energy flows and geopolitical relations in the coming years.

While the East Med basin has often witnessed geopolitical turbulence, natural gas has played an important role in fostering economic cooperation and strengthening industrial collaboration between regional actors. The establishment of the Eastern Mediterranean Gas Forum (EMGF), an international organisation with eight Member Countries (Cyprus, Egypt, France, Greece, Israel, Italy, Jordan, Palestine) and three Observers (European Union, United States, World Bank), has marked an unprecedented milestone in the process of regional integration.

Since its inception, the EMGF has acted as a pivotal platform for dialogue and collaboration between all stakeholders involved in the natural gas market and supply chain, including governments, regulators, and the industry, in all its ramifications (state-owned companies, international companies, EPC and service providers, financial institutions, organisations for commercial and industrial cooperation).

At the same time, the EMGF has developed a vast range of decarbonisation initiatives, with the aim of facilitating a sustainable utilisation of the available and yet undiscovered resources of the region. Climate Action is a key pillar of the EMGF's Long Term Strategy, which also focuses on regional integration and on positioning the EMGF as a low-carbon, low-cost gas supplier, while engaging with the private sector.

While governments play a crucial role, private sector engagement is equally important to develop natural gas resources, especially in the Eastern Mediterranean, due to the region's complex and capital-intensive exploration and extraction processes. The involvement of private companies brings investment, advanced technology, and expertise that are vital for the region's efficient resource development.





Technological innovations, such as advanced seismic imaging and drilling techniques, enhance the ability to locate and utilise new reserves more effectively.

Moreover, private sector players often facilitate partnerships and collaborations that can streamline operations and reduce risks. Their involvement also fosters competitive dynamics which can lead to more efficient project execution and better economic outcomes for the region. In essence, private sector engagement ensures that the development of natural gas resources is both economically viable and technologically advanced, maximising the region's potential and integrating it into the global energy market.

The synergy between the EMGF and the IGU, two robust platforms for dialogue and knowledge sharing between stakeholders in the energy sector, stems from their shared vision of Gas as a crucial component of sustainable energy systems and as an enabler of economic cooperation, prosperity and security. Private sector engagement, to leverage the expertise of industry leaders to drive collective action towards a sustainable Gas market, is also a mission shared by both organisations.

This first joint IGU-EMGF publication will focus on The Role of Natural Gas in Eastern Mediterranean Economies and the Path to the Energy Transition. This publication intends to underscore the importance of Gas for the sustainable growth of East Med countries and showcase the richness of investment opportunities that the region offers across all aspects of the Gas value chain.

In particular, this Report will delve into the following topics:

- **Gas Production Landscape in the East Mediterranean**, including an overview of the main gas-producing countries, major gas fields, and the economic and environmental impact of gas production in the region. The report will also discuss the role played by regional collaboration, most notably by the EMGF Member Countries, and highlight some of their initiatives for technological advancement, market integration, and decarbonisation of the gas value chain.
- **Investment Opportunities in the East Med Gas Sector**, with a focus on exploration and development prospects in offshore gas fields, infrastructure projects, export potential and market dynamics, regulatory frameworks and investment incentives.
- **Private Sector Engagement in the East Med Gas Sector**, underscoring the importance of private sector investment and participation and the role and impact of partnerships/joint ventures on infrastructure projects and local economies and communities.
- **Technological Innovations for a Sustainable Gas Value Chain including**, for instance, CCS (Carbon Capture and Storage)/CCUS (Carbon Capture, Utilisation, and Storage), the application of this technology in the gas sector, case studies of successful technological implementation, and the potential of these technologies for enhancing sustainability and efficiency in gas production and transportation.
- **Environmental and Social Sustainability Considerations**, particularly the environmental impacts of gas exploration and production, social and economic benefits to local communities, and strategies for mitigating environmental risks and promoting sustainable practices.

To enrich the analysis, the report will address these topics in detail and discuss several Case Studies and Leading Practices.

The objective is to highlight the most important lessons learned from successful projects in the regional gas sector and, at the same time,, to underscore the implications of these success stories for international partnerships and geopolitical dynamics. A forward-looking Future Outlook, highlighting emerging trends in the East Med gas sector, potential challenges and opportunities and long-term strategies to ensure sustainable gas production will complete the picture.

The EMGF -IGU partnership reaffirms the importance of fostering international cooperation for the benefit of human progress and global growth, and for driving the world towards a sustainable energy for all.



As of January 2024, the IGU has 80 Charter members, 13 Premium Associate Members and 57 Associate Members on 5 Continents. The International Gas Union (IGU) was founded in 1931. It is a worldwide organisation registered in Vevey, Switzerland with the Secretariat located in London, UK.

The IGU represents the global gas industry with more than 150 members in over 80 countries, covering over 90% of the global gas market. The working organisation of IGU covers the complete gas value chain, from the supply of natural and decarbonised gas, renewable gas and hydrogen, through their transmission and distribution, and all the way to the point of use.

IGU encourages international trade in gas by supporting non-discriminatory policies and sound contracting principles and practices, promoting development of technologies which add to the environmental benefits of gas and further enhance safe production, transmission, distribution and utilisation of gas.

IGU strives to be the most credible, effective, and independent organisation, serving as the spokesperson for the gas industry worldwide.

The IGU also organises the world's leading international gas events, including the World Gas Conference (WGC), the International Gas Research Conference, and the World LNG conference series.



Throughout history, the East Mediterranean Region has played a prominent role helping shape our modern world today. Located at the crossroads of three continents -Africa, Asia and Europe- has made it essential for trade and key to culture for millennia. Over the last decade, many significant gas discoveries have been made in the Eastern Mediterranean. Recognizing the vast resource prospects, opportunities and challenges, it was clear that the full potential of the Eastern Mediterranean gas basin can only be unlocked if suppliers, buyers and transit countries in the East Med region cooperate on developing an infrastructure for gas trade within the region and with external markets. This outline was the base underpinning the establishment of the East Mediterranean Gas Forum "EMGF" as a platform for Gas producer, consumer and transit countries. In 2018, Egypt introduced an Initiative to establish the East Mediterranean Gas Forum as a platform for structured policy dialogue on natural gas, leading to the development of a sustainable regional gas market that could unlock the full gas resource potential in the East Mediterranean region. During the tripartite summit held in October 2018 in Crete, Leaders of Egypt, Cyprus and Greece declared their intentions to establish the Forum, accordingly, further coordination with regional parties and international organizations took place. The Egyptian initiative was welcomed and sincerely adopted by the rest of the Founding Members; Cyprus, Greece, Israel, Italy, Jordan and Palestine (together with Egypt) as an initiative that sets the base for a structured policy dialogue leading to the development of a regional gas market to unlock the full gas resource potential and to set the stage for multilateral and full hub trade. Just three months later, in January 2019, the Energy Ministers of Cyprus, Egypt, Greece, Israel, Italy, Palestine and Jordan gathered in Cairo for the first time to discuss the structure of the EMGF and agree on its main objectives. Throughout the year 2019, remarkable joint efforts from all EMGF member countries were witnessed. With a unified vision and significant founding principles, the Ministers of the EMGF Founding Member Countries and the EMGF Executive Board held several successful meetings working on the official establishment of the forum. This has led to the agreement on a final document for the EMGF Statute in a worldwide record of 12 Months. The EMGF Gas Industry Advisory Committee was also established in November 2019 as a vehicle to allow the pivotal participation of the private sector and strike the right balance between public and private interests. This expeditious evolution of the EMGF and its strategic importance to the stability and economic development of the region has captured worldwide attention with many countries offering their support and expressing interest to join the Forum as Members or Observers. The EMGF has progressively evolved into the most renowned Energy Forum in the Mediterranean region. In a very short period, it has become a diplomatic break-through and a transformational project in the region. The significance of the EMGF goes beyond energy; it is a pivotal enabler of regional peace, and a vital engine for economic growth and prosperity.





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