

**Summary:** New Eastern Mediterranean natural gas discoveries are taking place in a period when global demand for natural gas supplies is increasing. For the next 10-20 years, Europe will require substantial growth in both oil and gas imports. The EU needs to be involved in Eastern Mediterranean gas issues for several reasons: Eastern Mediterranean gas can strengthen the energy security of Cyprus (an EU member state), Israel, and the Palestinian Authority (both of which the EU has close links with), and because it could strengthen the EU's own energy security; the development of these resources should take place in a sustainable way, as part of balanced overall energy strategies; the EU has a strong interest in stability in this region, which directly adjoins its territory; Turkey, a candidate for EU membership, shares this interest in regional stability, especially given current developments in Syria; and the safety and security of energy installations is important for all Mediterranean countries. This article is adapted from a speech given at a GMF-European Commission (BEPA) symposium in October 2012.

## Gas Discoveries in the Eastern Mediterranean: Implications for the European Union

by Michael Koehler

For the last two years, the EU has taken a considerable interest in the resource exploration that is underway in the Levant basin in the Eastern Mediterranean. As a result of one of the largest deep-water natural gas discoveries of the past decade, both Israel and Cyprus will have enough gas to cover their domestic energy needs for several decades; moreover, there will be enough gas left for both countries to export gas either to their immediate neighbors in the region or to Europe and other parts of the world. There is increasing commercial interest by international exploration and production companies that have participated in bids for licenses. Many companies are ready to go ahead, despite relatively high levels of geopolitical risk. Greece and Turkey have also launched exploration offshore, while others are preparing, notably Syria and Lebanon, as well as and Egypt (for new fields).

The total magnitude of natural gas resources in the Eastern Mediterranean is difficult to assess. The U.S. Geological Survey has estimated resources in the region at 3,500 billion cubic meters (bcm). This could guarantee gas supplies for the region

for 50-100 years. However these estimates are not confirmed and it is not yet clear if the production of these quantities from great depths at sea will always be economically viable.

Exploration and development of these resources in some geographical areas face considerable political risk. Disputes involving Israel/Lebanon and Cyprus/Greece/Turkey, respectively, mainly concern the right to exploit resources in certain contested areas. This is further complicated by the fact that Israel, Syria, and Turkey are not signatories to the United Nations Convention of the Law of the Sea (UNCLOS). These disputes are superimposed on underlying political conflicts, including the division of Cyprus, Israel's relations with Lebanon, the Israel/Palestinian conflict, the complex relationship between Israel and Turkey, and other regional uncertainties, including the situation in Syria and its repercussions in neighboring countries.

These new Eastern Mediterranean discoveries and further explorations are taking place in a period when global demand for natural gas supplies is increasing. In Europe, despite the effects of the economic

# Policy Brief

crisis, gas demand will remain fairly stable or slightly increase in the coming years to reach 550-600 bcm per year by 2020; at the same time, EU gas dependency on sources outside Europe will increase from about 60 percent in 2010 to about 75 percent in 2020 and to over 80 percent in 2030. The EU will thus need more imports.

Europe is looking to meet its future energy needs by developing indigenous primary energy resources, both fossil and renewables, but for the next 10-20 years, Europe will require substantial growth in both oil and gas imports. The response to this challenge, in relation to gas, is to foster competition in European gas markets through greater market interconnections, a greater level of cross-border flows, pricing reforms in long-term contracts (which would allow gas prices to be adjusted more flexibly in function of market developments), and more diversified external supplies.

To what extent could Eastern Mediterranean gas contribute to the diversification of EU gas supplies? Domestic demand in Cyprus is not sufficient to justify the large investments needed in off-shore fields and accompanying infrastructure. To offer investors a reasonable rate of return, Cyprus will have to develop exports, and it clearly intends to do so. In Israel, an inter-ministerial committee, chaired by Ministry of Energy and Water Resources Director-General Shaul Tzemach, in August 2012 recommended a strategy involving both increased domestic consumption and exports. Political decisions on this will need to be taken soon to provide legal certainty for investors.

These developments in the Eastern Mediterranean are occurring in parallel with the debate in Europe about long-term energy priorities and with the EU's energy infrastructure planning. If Cyprus and Israel engage in a pro-active export strategy, some 10-20 bcm could be exported per year from 2020 to 2030.

This would represent 2-4 percent of current EU27 gas consumption and is comparable to the volumes currently imported by the EU from Nigeria, Libya, Egypt, and some other overseas suppliers. By comparison, the EU imports between 140 and 150 bcm from Russia alone every year. Estimates concerning overall amounts of gas in the Levant Basin, which is under the jurisdiction of several countries in the region, correspond to around seven years of current EU consumption. This has great significance for the region but could only make a modest contribution to the EU's overall energy needs.

Other gas producers in the region also have a strong export potential. Today Libya exports about 10 bcm/year, which is expected to increase to 40-50 bcm/year by 2030, assuming there is a stable political climate in the country. This would be four times higher than potential Israeli and Cypriot exports combined, at least in their initial stage.

Large-scale pipelines for the transportation of Eastern Mediterranean gas to Europe are not viable from a commercial point of view, so gas exports are likely to take the form of liquefied natural gas (LNG). This means that Europe would not be the only possible market for this gas. Asian markets, where LNG prices are particularly high, could also prove attractive. Producers might be tempted to conclude long-term LNG supply contracts with both European and Asian customers to minimize risk through export diversification.

Israel is considering construction of a liquefaction plant on its territory or cooperating with Cyprus on a liquefaction plant onshore the island. A "floating LNG unit" is also under consideration but requires the use of new technology that has not been tested fully, may face technical problems, and whose cost is as yet unknown. In any event, LNG is not a cheap option. The construction of a first train of a gas liquefaction plant in Cyprus alone would cost about \$5 billion. Cooperation to set up LNG terminals would therefore make both economic and political sense. This, of course, implies a high degree of mutual trust and a supportive political climate. Persistent geopolitical problems raise the risk premium and the cost of investments. This is among the reasons why the EU has a role to play in fostering stability throughout the region and in sharing best practices in the governance of energy resources.

The EU has established energy dialogues separately with Israel, Cyprus, and Turkey, with a view to sharing best practice and supporting investment in energy infrastructure. The EU also plans to upgrade the current level of cooperation in the energy sector with Egypt and Lebanon.

The EU will respond positively to Israeli requests for technical advice to help it establish the appropriate legislative and regulatory framework to organize its gas market both for domestic consumption and export. The volumes of gas available for export will depend on further discoveries, resolving technical challenges, and political decisions by the country's authorities.

# Policy Brief

Cyprus has also asked the European Commission to provide technical support for the development of a long-term strategy for the use of natural gas, and Commission experts will work with Cyprus on market access issues, the negotiation of contracts, and infrastructure options.

As exploration is taking place off-shore at considerable depths, the EU has started talks with both Cyprus and Israel on the safety of offshore oil and gas production and on the implementation of forthcoming EU legislation in this field. This aims to reduce the risk of major accidents and to limit their consequences should they occur. This could be an area in which countries throughout the region, including Turkey, agree to practical confidence-building measures, whatever their political differences. A major accident would have incalculable consequences throughout the Mediterranean.

The EU continues to engage with Turkey on energy, as part of its “positive agenda,” in parallel with the accession negotiations, which have run into a number of difficulties. The goals are to encourage Turkey to take an integrated approach to its gas and electricity markets and to ensure that the planned southern gas corridor is of sufficient capacity to accommodate increased future volumes.

Concerning the delimitation of exclusive economic zones, the European Union upholds the sovereign right of EU member states to explore and develop their natural resources in accordance with EU treaties and laws (the “*acquis*”) as well as international law, especially UNCLOS.

Overall, the discovery of gas in the Eastern Mediterranean provides huge opportunities for the countries concerned to strengthen their energy security, reinforce their economies, and develop regional cooperation with other countries in the area. To achieve these benefits, concerted efforts will be needed to reduce political risk and to create supportive conditions for exploration and production. The volumes potentially available by 2030 will not significantly affect the European gas market but could contribute to the diversification of the EU’s energy sources, especially in member states with a legacy of high dependence on Russian gas.

The EU needs to be involved in Eastern Mediterranean gas issues for at least five reasons:

- Eastern Mediterranean gas can strengthen the energy security of Cyprus (an EU member state), Israel, and the Palestinian Authority (both of which the EU has close

links with), and because it could strengthen the EU’s own energy security;

- the development of these resources should take place in a sustainable way, as part of balanced overall energy strategies;
- the EU has a strong interest in stability in this region, which directly adjoins its territory;
- Turkey, a candidate for EU membership, shares this interest in regional stability, especially given current developments in Syria; and
- the safety and security of energy installations is important for all Mediterranean countries.

The EU stands ready to play its role and assist the countries in the region in exploiting their energy resources to best serve their national interests, developing commercial cooperation that will serve mutual interests, making informed decisions on the use of gas whether for domestic consumption or for export, and helping overcome long-standing political conflicts.

### About the Author

Since 2010, Michael Koehler has been Head of Cabinet of Commissioner Oettinger, in charge of energy policy. He is also a professor at the College of Europe in Bruges. He joined the European Commission in 1994 and subsequently held several positions in the areas of foreign affairs, development, security policy, and maritime industries. Dr. Koehler holds a Ph.D. in history and Middle Eastern studies.

### About GMF

The German Marshall Fund of the United States (GMF) strengthens transatlantic cooperation on regional, national, and global challenges and opportunities in the spirit of the Marshall Plan. GMF does this by supporting individuals and institutions working in the transatlantic sphere, by convening leaders and members of the policy and business communities, by contributing research and analysis on transatlantic topics, and by providing exchange opportunities to foster renewed commitment to the transatlantic relationship. In addition, GMF supports a number of initiatives to strengthen democracies. Founded in 1972 through a gift from Germany as a permanent memorial to Marshall Plan assistance, GMF maintains a strong presence on both sides of the Atlantic. In addition to its headquarters in Washington, DC, GMF has seven offices in Europe: Berlin, Paris, Brussels, Belgrade, Ankara, Bucharest, and Warsaw. GMF also has smaller representations in Bratislava, Turin, and Stockholm.