THE ISPD EASTMED GEOSTRATEGIC OUTLOOK SERIES

The future prospects for the EastMed pipeline: A Scenario Analysis

Dr. Vasileios P. Karakasis

Analysis Paper, No.7
November 2023

INSTITUTE of STUDIES for POLITICS and DEMOCRACY

The future prospects for the EastMed pipeline: A Scenario Analysis

Analysis Paper, No.7
November 2023

INSTITUTE OF STUDIES FOR POLITICS AND DEMOCRACY

Address: Andrea Zakou 2, Office 301, 2404 Engomi, Nicosia, Cyprus.

Telephone: +357 22 664470

Email: info@ispd.org.cy

Website: ispd.org.cy

THE ISPD EASTMED GEOSTRATEGIC OUTLOOK SERIES

Author

Dr. Vasileios P. Karakasis
Research Fellow, ISPD

Dr. Vasileios P. Karakasis is a Lecturer & Researcher of European Studies at The Hague University of Applied Sciences

The future prospects for the EastMed pipeline: A Scenario Analysis

1.Overview

In January 2020, Greece, the Republic of Cyprus and Israel signed an agreement to construct the EastMed pipeline, a 1900-kilometer undersea pipeline designed to transport gas from the offshore deposits in the Leviathan field of the southeastern Mediterranean to continental Europe[1]. Designated as a Project of Common Interest (PCI) by the European Commission since 2013, this pipeline aims to diversify the EU's energy sources, potentially reducing reliance on Russian gas. While progress had stalled, the Russian invasion of Ukraine reignited hopes for its construction[2]. Nonetheless, the United States raised doubts about its viability[3] and distanced itself from what it reportedly labeled a "contentious energy scheme”[4].

Our report aims to assess the prospects of the EastMed pipeline, drawing insights from the energy security scenario analysis by the World Energy Council, Shell, and the Clingendael Institute. Beginning with background information on the project's geological aspects, EU-driven regulatory framework, key stakeholders, and estimated costs, we'll craft scenarios around three central storylines: 1) Market and Institutions, focusing on stable geopolitics and regional cooperation, 2) Regions and Empires, emphasizing Geopolitical Tensions, and 3) Environmental Challenges.

2. Background

2.1 Geological context

Throughout the 20th century, the Eastern Mediterranean's history was marked by the great powers' competition for control over its valuable oil fields. However, the dawn of the 21st century witnessed technological advancements, mainly driven by surging global oil prices, which ignited fresh exploration initiatives[5]. In 1999-2000, a joint venture between the Israeli Delek Group[6] and Noble-Energy[7] discovered the Gaza Marine and Mari-B natural gas fields in close proximity to the Gaza Strip and Israel's coastline[8].

[1] Paphitis, N., & Hadjicostis, M. (2020, January 2). Greece, Israel, Cyprus sign deal for EastMed gas pipeline. Retrieved from Associated Press: https://apnews.com/article/f4361f92bdd86072a9d33891f61c546c
[2] Michalopoulos, S. (2022, April 5). Ukraine war revives EastMed gas pipe talks but EU insists on feasibility. Retrieved from Euractiv: https://www.euractiv.com/section/energy/news/ukraine-war-revives-eastmed-gas-pipe-talks-but-eu-insists-on-feasibility/
[3] US Embassy & Consulate in Greece. (2022, January 10). Statement on East Med Energy Cooperation. Retrieved from https://gr.usembassy.gov/: https://gr.usembassy.gov/statement-on-east-med-energy-cooperation/
[4] Stamouli, N. (2022, January 18). EastMed: A pipeline project that ran afoul of geopolitics and green policies. Retrieved from Politico: https://www.politico.eu/article/eastmed-a-pipeline-project-that-ran-afoul-of-geopolitics-and-green-policies/

In 2009, the discovery of the Tamar natural gas field, containing approximately 280 billion cubic meters and becoming operational in 2014, This discovery might have been a critical juncture for Israel's energy security because it relieved its traditional energy vulnerability[9]. In March 2010, the US Geological Survey estimated a substantial 122 trillion cubic feet of recoverable gas in the Levant Basin Province, spanning Syria, Lebanon, Israel and the Gaza Strip, and extending into Cypriot waters[10]. While significant in the Mediterranean, these reserves were comparatively smaller than those found in other Mediterranean nations such Algeria.

Israel and Cyprus, among other countries in the region, have been vying to position themselves in the European and/or gas markets, despite a number of challenges aboutwhich we will discuss in our scenarios. Israel's historical isolation in the region amplified the political sensitivity surrounding the development of these new gas resources[11]. The government decided to adopt recommendations to allow 40% of the resources for export while reserving the rest for domestic use[12]. Israel's aspirations to play a key role in the Eastern Mediterranean's energy politics received a lift when Chevron, the American energy giant, acquired stakes in Mari-b and Tamar when it bought Noble Energy in 2020 for about $4 billion[13]. Cyprus launched its first international tender for oil and gas exploration licenses in February 2007 with Noble Energy among the two bidders. Noble Energy received its license for Block 12 in 2008. The company conducted seismic surveys in 2011, confirming a substantial gas resource in the Aphrodite field, estimated at 5 to 8 trillion cubic feet (see Figure 1) prompting consecutive licensing rounds in 2012, 2013, and 2015 for other Blocks as well.

Country	Discovery year	Name	Estimated size (trillion cubic feet)
Cyprus	2019	Glaucus-1	5.00-8.00
	2018	Calypso	4.55
	2011	Aphrodite	5.00
Israel	1999	Noa	0.04
	2000	Mari-B	1.50
	2009	Dalit	0.70
	2009	Tamar	10.00
	2010	Leviathan	19.00
	2011	Dolphin	0.08
	2012	Shimshon	0.3
	2012	Tanin	1.20
	2013	Karish	1.80
	2014	Royee	3.20
Palestinian Territories	2000	Gaza Marine	1.00

Figure 1

Estimated size of gas reserves in the Eastern Mediterranean, Source: Nakhle, C. (2020, May 15). Eastern Mediterranean gas outlook gets murkier. GIS Reports. https://www.gisreportsonline.com/r/gas-eastmed/)

[5] Yergin, D (2020) The New Map: Energy, Climate and the Clash of Nations, London: Allen Lane Penguin Books, p. 253-258
[6] Founded in 1951 as Israel's first government-owned gas retailer
[7] An American petroleum and natural gas exploration and production company headquartered in Houston, Texas
[8] Delek-Group (2010). 'Project Description.' 12 December. https://www.delekgroup.com/portfolio-items/1999-2/
[9] Cohen, E. (2018). Development of Israel's natural gas resources: Political, security, and economic dimensions. Resources Policy, 57, 137–146. https://doi.org/10.1016/j.resourpol.2018.02.011; Yergin, D (2020) The New Map: Energy, Climate and the Clash of Nations, London: Allen Lane Penguin Books, p. 253-258; Prontera A. (2019) The New Politics of Energy Security in the European Union and Beyond: States, Markets and Institutions, New York: Routledge, p. 214-215
[10] Schenk, C.J., Kirschbaum, M.A., Charpentier, R.R., Klett, T.R., Brownfield, M.E., Pitman, J.K., Cook, T.A., and Tennyson, M.E., 2010, Assessment of undiscovered oil and gas resources of the Levant Basin Province, Eastern Mediterranean: U.S. Geological Survey Fact Sheet 2010-3014, https://pubs.usgs.gov/fs/2010/3014/#:~:text=Petroleum%20Resources%20Project-,Assessment%20of%20Undiscovered%20Oil%20and%20Gas%20Resources%20of%20the%20Levant,a%20geology%20based%20assessment%20methodology.
[11] Fischhendler, I., & Nathan, D. (2014). In the name of energy security: the struggle over the exportation of Israeli natural gas. Energy Policy, 70, 152–162. https://doi.org/10.1016/j.enpol.2014.03.020
[12] Ministry of Energy and Infrastructure. (2019, January 6). The government has approved the recommendations of the professional team for the periodic examination of the Zemach Committee's conclusions. https://www.gov.il/en/departments/news/ng_060119
[13] Chevron. (n.d.). Chevron's exploration and production in the Middle East. chevron.com. https://www.chevron.com/operations/exploration-production/exploration-production-in-middle-east

These offshore gas discoveries and plans presented opportunities for cooperation but also heightened traditional interstate conflicts over sea boundaries. Several ambitious infrastructural projects aimed to connect Israeli and Cypriot gas to European energy markets: the (i) Eurasia Interconnector, a planned HVDC interconnector among the Greek, Cypriot, and Israeli power grids via the world's longest submarine power cable, (ii) the Cyprus LNG Terminal in Limassol, (iii) the Cyprus-Egypt gas pipeline from the Aphrodite gas field to the Egyptian Damietta LNGK plant and the most ambitious one, (iv) the EastMed pipeline about which we will discuss in detail.

These offshore gas discoveries and plans presented opportunities for cooperation but also heightened traditional interstate conflicts over sea boundaries

2.2 Description of the pipeline

The EastMed pipeline, spanning approximately 1900 kilometers, originates from the offshore gas reserves of Israel's Levantine Basin (Figure 2) and its route extends through the Republic of Cyprus, the Greek island of Crete, and the Greek mainland, with key locations including Megalopolis and Igoumenitsa. The pipeline's blueprint encompasses both a 1,300-kilometer offshore and a 600-kilometer onshore segment[14]. It is designed with an initial capacity of approximately 10 billion cubic meters of gas annually (bcm/y), with the potential to expand to 20 bcm/y. A noteworthy feat of this project is its ability to navigate water depths of up to 3,000 meters, placing it in line with other globally significant ultra-deep-water pipelines[15]. IGI Poseidon, a 50-50% joint venture between DEPA , the Public Gas Corporation of Greece and the Italian gas utility Edison International Holding, spearheads the development of the project.

As part of this, the establishment of a Metering and Regulating station in Megalopoli will facilitate the connection of the Greek gas transmission system to the EastMed pipeline[16]. A combination of an overland pipeline to northwestern Greece and a planned undersea pipeline will transport the gas to Italy. The project is also designed to accommodate future gas discoveries in the waters off Cyprus and Greece, where ongoing exploration efforts are currently underway.

A noteworthy feat of this project is its ability to navigate water depths of up to 3,000 meters, placing it in line with other globally significant ultra-deep-water pipelines

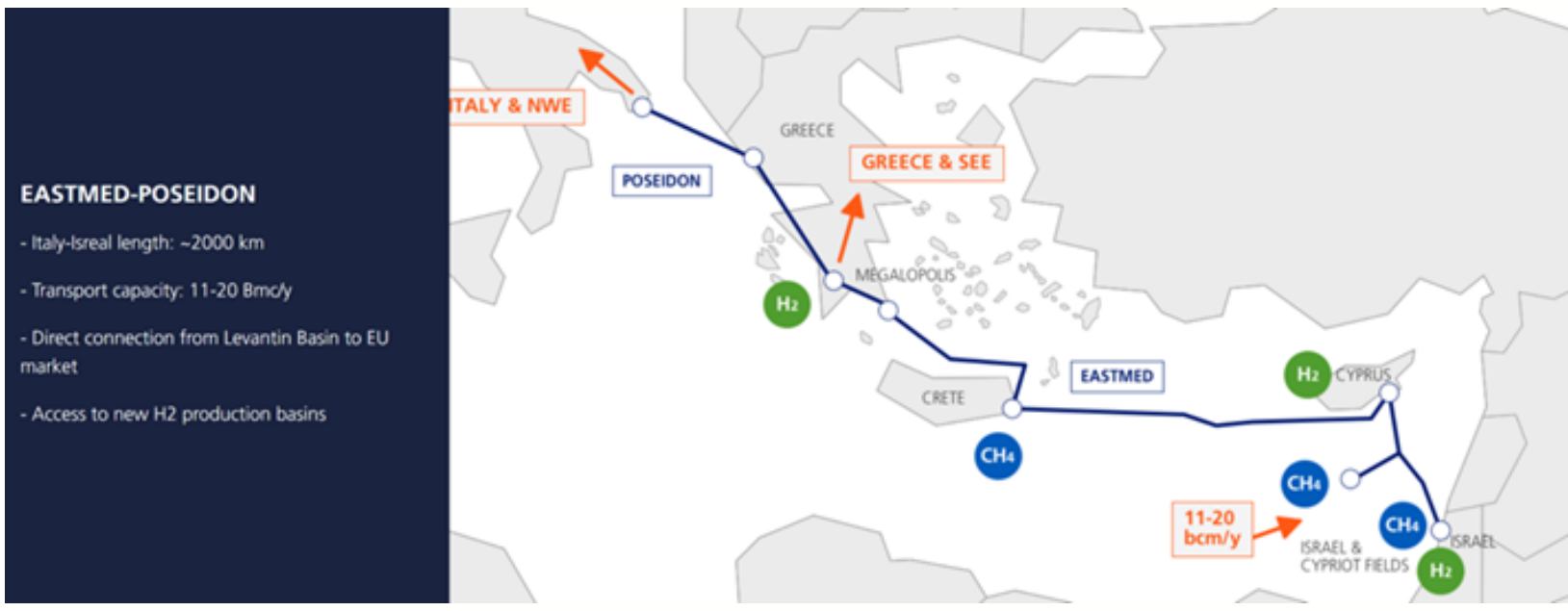

Figure 2

[14] Climate, Infrastructure and Environment Executive Agency/Energy (n.d) “PCI Transparency platform”, Retrieved from https://ec.europa.eu/energy https://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/main.html
[15] Pipeline & Gas Journal. (2022, June 13). DNV Confirms Feasibility and Maturity of EastMed Gas Pipeline. Retrieved from https://pgjonline.com/: https://pgjonline.com/news/2022/june/dnv-confirms-feasibility-and-maturity-of-eastmed-gas-pipeline
[16] Climate, Infrastructure and Environment Executive Agency/Energy (n.d) “PCI Transparency platform”, Retrieved from https://ec.europa.eu/energy https://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/main.html

2.3 The PCI status

The EastMed pipeline has held the status of a Project of Common Interest (PCI) since 2013, as designated by the European Commission. PCIs are integral to the Trans-European Networks for Energy (TEN-E) policy, [17] which emphasizes the development of priority gas corridors to bridge isolated regions from European energy markets, bolster cross-border interconnections, and expedite permitting and authorization processes. There are four key gas infrastructure corridors: 'NSI West Gas' in Western Europe, 'NSI East Gas' in Central Eastern and Southeastern Europe, the 'Baltic energy market interconnection plan in gas (BEMIP Gas)' and the 'Southern Gas Corridor (SGC)'.

The latter consists of three interconnected pipelines, as shown in Figure 3: the operating South Caucasus Pipeline from the Shah Deniz field of Azerbaijan to Georgia, the Trans-Anatolian Pipeline (TANAP) through Turkey and the Trans-Adriatic Pipeline (TAP) between Greece, Albania and Italy (operational since 2020). SGC was in many ways a scaled down version of the earlier Nabucco pipeline project that was destined to bring natural gas from Azerbaijan and possibly Turkmenistan to Europe via a 4,000 km-long pipeline via Georgia, Turkey, Bulgaria, Romania, Hungary, Austria and Czech Republic[18]. As Tsafos posits, with the selection of the Trans-Adriatic Pipeline (TAP) as the preferred route by Shah Deniz, alternative pipelines, such as the Italy-Greece-Interconnector, were left without gas for shipment. EastMed pipeline emerged as a viable solution for a market already engaged in talks to procure additional gas[19].

Figure 3

Source: SGC. (n.d.). https://www.sgc.az/en

The EastMed pipeline theoretically adheres to the goals of the TEN-E policy, aiming to diversify the EU's energy sources and link previously isolated regions—such as the Republic of Cyprus and Crete—to European energy markets. Its designation as a PCI grants the EastMed Pipeline several benefits, such as facilitating streamlined administrative procedures, simplified environmental assessments, enhanced public engagement opportunities, and access to funding from the Connecting Europe Facility. Whether this will lead to its operation, will be assessed in the following sections.

---

[17] Trans-European networks for Energy. (n.d.). Energy. https://energy.ec.europa.eu/topics/infrastructure/trans-european-networks-energy_en#:~:text=Revision%20of%20the%20TEN%2DE%20policy,-Energy%20infrastructure%20is&text=On%2023%20June%202022%2C%20the,technologies%20into%20the%20energy%20system.
[18] Grigas, A (2017) The New Geopolitics of Natural Gas, Cambridge, MA: Harvard University Press
[19] Tsafos, N. (2019, January 22). Can the East Med Pipeline Work? Center for Strategic and International Studies. [4] Steavenson, Wendell (2022). "My money or your life: the bank robbers of Beirut," The Economist 1843 Magazine, December 27, https://www.economist.com/1843/2022/12/27/my-money-or-your-life-the-bank-robbers-of-beirut (assessed 31/1/2023)

3. Scenario thinking

Various factors, including geological conditions, economic and energy demand growth, financial availability for infrastructure investments, technological advancements, and geopolitical dynamics, influence the completion and operation of such megaprojects[20]. The landscapes may be shaped by unforeseen events like the global recession of 2007-09, the 2010 Gulf of Mexico oil spill, the 2011 Arab uprisings, the 2011 Fukushima nuclear reactor threats, the 2014 Crimea annexation, the COVID-19 pandemic, the 2022 Russian invasion of Ukraine, and the 2023 war in Gaza and Israel.

Analyzing potential economic and geopolitical landscapes often relies on scenario-based decision-making tools, a term originating from military strategy in the 1960s and adopted by multinational companies such as Royal-Dutch Shell[21], influential think tanks such as the Clingendael International Energy Program[22], and global forums such as the World Energy Council [23]. Scenario analysis does not predict the future but explores various potential futures and their implications. Treating scenarios as conceivable yet incomplete and uncertain worlds offers a platform for readers to evaluate and contemplate long-term challenges for the pipeline within these hypothetical scenarios. Identifying key uncertainties that could significantly impact a pipeline's future prospects allows for assessing their implications and devising a plan considering potential risks. Motivated by approaches of Dutch-Shell, Clingendael Energy Program and World Energy Council, we base our scenarios on three storylines: a) Markets and Institutions where financial, technical, and environmental considerations gain currency in the decision-making process; b) Regions and Empire, where security considerations outweigh all other types of considerations, and c) Environmental Challenges of the basis of Shell’s Sky 2050 scenario.

4. Markets & Institutions

In theory…

This storyline interprets energy as a globally exchanged commodity, the value of which is defined by its technical properties and cost-competitiveness. It focuses on the cooperation between energy enterprises and participating nations. This emphasizes the significance of interdependence and the pivotal roles played by both markets and international institutions in framing energy security policies. This resembles the "Giraffe scenario" outlined by the World Energy Council[24], which underscores interconnectedness in energy transactions. It highlights the role of markets and international bodies in structuring and implementing policies that shape global energy security. It's in the best interest of nation-states to foster a conducive and stable economic environment for energy cooperation.

20] Garcia-Verdugo, J. (2012). Global Policy Scenarios and economic scenarios as tools for energy policy. In J. G.-V. J. Marin-Quemada, Energy Security for the EU in the 21st Century: Markets, geopolitics and corridors (pp. 67-85). New York: Routledge.
[21] Shell Global. (2023). The Energy Security Scenarios. https://www.shell.com/energy-and-innovation/the-energy-future/scenarios/the-energy-security-scenarios/_jcr_content/root/main/section_926760145/promo/links/item0.stream/1679344984968/5bc8327925d66e1402040d0e79fed7291bf9b7e9/energy-security-scenarios-full-report.pdf
[22] Correlje Aad & Coby van der Linde (2006) “Energy supply security and geopolitics: A European perspective” in Energy Policy, Vol. 34(5), pp. 532-543; De Jong, J., & Weeda, E. (2007, December). Europe, the EU and its 2050 Energy Storylines. Clingendael International Energy Program. https://www.clingendaelenergy.com/inc/upload/files/Europe_EU_2050.pdf
[23] World Energy Council. (2007). Deciding the Future: Energy Policy Scenarios to 2050. https://www.worldenergy.org/assets/downloads/scenarios_study_online_1.pdf;
[24] World Energy Council. (2007)

Despite increasing awareness of environmental concerns at the local and regional levels, a lack of proactive public engagement might hinder efforts to address rising greenhouse gas emissions.

and practice...

The role of natural gas has grown in importance in the Eastern Mediterranean over the last three decades. Natural gas consumption in the power sector tripled between 2000 and 2010. At the national level, there are three large gas markets in the region: Italy, Egypt, and Turkey[25]. While Italy and Turkey are large gas importers, Egypt relies on domestic production. However, owing to declining production and challenges to exploration activities, Egypt became a gas importer between 2015 and 2019[26]. Following the discoveries in the area, Egypt is expected to become a net energy exporter, although current figures show otherwise. One of the key problems in the region is its low energy interconnectivity with the Arab Gas Pipeline or Trans-Mashreq Gas Pipeline, (AGP) [27] and the East Mediterranean Gas pipeline (EMG) or the El Arish-Ashkelon Pipeline[28] being only two gas pipelines in the region.

The construction of the EastMed pipeline could theoretically contribute to the development of the infrastructure in the region. In line with the feasibility studies conducted, IGI Poseidon's CEO, Fabrizio Mattana, indicates that the EastMed, in conjunction with the Poseidon pipeline, is approaching the final engineering phase, with commercial operation expected by 2027[29]. The viability of the EastMed is also supported by the CEO of Edison, who is part of the joint venture monitoring the feasibility studies of the project[30].

Gas discoveries could offer the opportunity for stronger regional cooperation and political stability in the region, as evidenced by the cooperation among Egypt, Israel, Jordan, Greece and Cyprus,[31] and the establishment of the East Mediterranean Gas Forum in 2019, including Palestine, Italy and France. Before the war in Gaza and Israel, some of the countries had resumed energy trade and undertaken new forms of cooperation through memoranda of understanding (MoUs) and intergovernmental agreements related to the development of regional energy and water cooperation as well as security cooperation[32]. Israel and Cyprus would benefit from a coordinated energy policy vis-à-vis the Aphrodite field, although the development in this field requires both sides to expedite a compromise on how to proceed with the monetization of the gas discovered there[33].

This is probably the least challenging task faced by the pipeline. Seismic activity in the Eastern Mediterranean is one of the risks that must be considered during pipeline construction. Moreover, the 1900 km pipeline encounters substantial costs due to offshore depth and gradient variations, potentially posing credit securing challenges for transiting countries[34]. Increased EU gas import needs, the availability of Eastern Mediterranean gas for European exports and how the project fare in terms of cost competitiveness are factoring in the assessment of the project’s viability[35].

---

[25] Raimondi, P. (2022, May 11). Eastern Mediterranean Energy Resources between Energy Security and Energy Transition. Istituto Affari Internazionali. https://www.iai.it/sites/default/files/iaip2211.pdf
[26] Decades of energy subsidies accompanied by population growth with ever-increasing demands resulted in financial exposure and Egyptian General Petroleum Company struggling to meet its payment obligations to foreign energy operators. These factors caused energy shortages and created the need to import expensive LNG to guarantee electricity supplies. For more details see: Ellinas, C, J. Roberts, and H. Tzimitras (2016) Hydrocarbons Development in the Eastern Mediterranean: The case for Pragmatism. Washington, DC: Atlantic Council: Global

Additional gas discoveries could potentially favor the pipeline; however, in retrospect, more gas could also complicate matters by diversifying export options or pose challenges in consolidating gas streams (through the construction of LNG in Vassilikos or a pipeline to Egypt). For a project to succeed, the pipeline must become the most attractive choice for producers compared to other options. This does not seem to have been the case so far because of the high costs it incurs.

Additional gas discoveries could potentially favor the pipeline; however, in retrospect, more gas could also complicate matters by diversifying export options or pose challenges in consolidating gas streams (through the construction of LNG in Vassilikos or a pipeline to Egypt)

With respect to the gas demand, the EU experienced a resurgence in economic activity in 2021 and 2022 after COVID-19 lockdowns, leading to a surge in energy demand, notably in gas consumption. However, this uptick in demand correlated with a significant hike in natural gas prices during the latter half of 2021. The year 2022 faced disruptions in the gas supply due to the Russian invasion of Ukraine. Before the invasion, nearly a third of European natural gas was sourced from Russia, highlighting the critical need for energy diversification. The response to the supply shock included a considerable drop of 19% in natural gas consumption in the EU from August 2022 to January 2023,[36] as an outcome of voluntary measures following the shared rules introduced in 2022. To mitigate Russia's decreased gas supply, the EU resorted to replacing it with LNG, leading to a surge in energy prices in 2022.

One of options that the EU may consider in the future is reducing gas demand via specific policies and initiatives, such as Fit for 55 and REPowerEU[37]. Additionally, a long-term approach includes potentially offsetting demand by changing the power sector and industry behavior. Higher energy prices projected over the next five to ten years may change the economics of the energy transition, creating momentum for businesses, governments, and consumers to accelerate the behavioral and infrastructural changes that will likely be key to meeting climate commitments. If a shift toward renewable energy sources accelerates, the demand for natural gas may decrease, negatively affecting the project's economic feasibility[38].

If a shift toward renewable energy sources accelerates, the demand for natural gas may decrease, negatively affecting the project's economic feasibility

Energy Center and DINU Patricia Eurasia Center; Tsafos, N, A. Giamourides. (2015) Financing Gas Projects in the Eastern Mediterranean. Washington, DC: German Marshall Fund.
[27] The Arab Gas Pipeline (AGP) links Egypt to Jordan, Syria, and Lebanon, offering a total capacity of 10 bcm. Gas initially flowed to Jordan in 2003, Syria in 2008, and Lebanon in 2009 but was disrupted in 2011 due to Egyptian unrest. The pipeline to Jordan resumed operations in 2019
. https://www.hydrocarbons-technology.com/projects/arab-gas-pipeline-agp/
[28] The EMG was originally built to transport Egyptian gas from El-Arish to Ashkelon, Israel, with a total capacity of 7 bcm. It became operational in 2008, but in 2012 Egypt decided to halt its gas flows to Israel due to political reasons (public hostility to exports towards Israel during the Arab Spring) and lower production. It now ships Israel's gas to Egypt.
[29] Sall, P. (2022, June 13). DNV further confirms feasibility and maturity of the EastMed pipeline. Retrieved from DNV: https://www.dnv.com/news/dnv-further-confirms-feasibility-and-maturity-of-the-eastmed-pipeline-226712
[30] Reuters. (2023, July 7). EastMed pipeline project still viable, Edison CEO says. https://www.reuters.com/business/energy/eastmed-pipeline-project-still-viable-edison-ceo-says-2023-07-07/
[31] Tagliapetra, S (2013). Towards a New Eastern Mediterranean Energy Corridor? Natural Gas DevelopmentsBetween Market Opportunities and Geopolitical Risks. Rome: Nota Di Lavoro Fondazione Eni Enrico Mattei.
[32]Proedrou, F. (2023) A geopolitical account of the Eastern Mediterranean conundrum: sovereignty, balance of power and energy security considerations, Cambridge Review of International Affairs, 36:5, 679-696, DOI: 10.1080/09557571.2021.1897088
[33] Nakhle, C. (2023, October 12). Cyprus's gas remains stranded. GIS Reports. https://www.gisreportsonline.com/r/gas-2/
[34] Taliotis, C., & De Boncourt, M. (2015, April). East-Mediterranean Gas potential: Opportunities and Barriers. IFRI - Institut Français Des Relations Internationales. https://www.ifri.org/en/publications/publications-ifri/articles-ifri/east-mediterranean-gas-potential-opportunities-andIslamic Republic of Iran, Prospects of the Eastern Mediterranean Natural Gas Pipeline Project (2023, August 23) Strategic Council on Foreign Relations. https://www.scfr.ir/en/economy/179096/challenges-prospects-of-the-eastern-mediterranean-natural-gas-pipeline-project/
[

5. Regions and Empire

In theory...

In this scenario, tensions between countries in the region escalate, possibly due to disputes over energy resources. Political instability and conflicts delay or disrupt the pipeline project. Investors may become wary as security measures are of paramount concern. More precisely, this scenario pinpoints the dominance of realpolitik over economic and environmental concerns in the energy industry,[39] a concept referred to as "Archipelagos" by Shell (or Islands in the Past)[40]. As Cohen and Bremmer posit, the “credibility crisis” of the US and China may contribute to geopolitical instability and a global governance deficit, leading to concerns about supply chain vulnerability.[3] The erosion of international cooperation may foster the emergence of geopolitical swing states with independent global agendas, reshaping economic decision-making within a fragmented international order. While many businessmen are reluctant to invest in further hydrocarbon development due to the uncertain future, governments may find themselves compelled to intervene in this direction to enhance energy resilience, which would help them withstand future shocks and shortages.

This aligns with the World Energy Council's "elephant" scenario,[41] which anticipates substantial government involvement in energy planning and minimal international cooperation. The rationale behind this lies in prioritizing relative gains over absolute gains[42]. In an atmosphere marked by increased militarism, growing nationalist sentiments, and uncertainty, states focus not only on their individual energy supply but also on how they compare to other states with which they are compelled to engage, particularly neighboring nations. In such an antagonistic environment, the potential for substantial absolute gains from energy cooperation does not encourage collaboration, as each state fears how the other may use its enhanced capabilities.

and practice...

In September 2023, a plan for an Economic Corridor known as the India-Middle East-Europe Economic Corridor (IMEC) was introduced at the sidelines of the G20 Summit in New Delhi[44]. This corridor aims to connect India with the Middle East and Europe, bypassing China and Turkiye. It is considered as a US-backed alternative to China's Belt and Road Initiative (BRI)[45].The IMEC consists of two separate routes: an eastern corridor linking India to the Persian Gulf and a northern corridor connecting the Persian Gulf to Europe[46]. The corridor will feature a railway system, offering a reliable and cost-effective cross-border transportation network to complement existing maritime and road routes[47]. This network will facilitate the movement of goods and services among India, the United Arab Emirates, Saudi Arabia, Jordan, Israel, and Europe[48]. Along this railway route, participants plan to lay electric and digital network cables as well as pipelines for transporting clean hydrogen.

35] Tagliapetra, S. (2017, May 10). Is the EastMed gas pipeline just another EU pipe dream? Bruegel | the Brussels-based Economic Think Tank. https://www.bruegel.org/comment/eastmed-gas-pipeline-just-another-eu-pipe-dream
[36] Eurostat. (2023, 21 februari). EU gas consumption decreased by 19%. Eurostat. https://ec.europa.eu/eurostat/web/products-eurostat-news/w/DDN-20230221-1#:~:text=The%20EU%20consumption%20of%20natural,January)%20between%202017%20and%202022.
[37] Boccara, G., Diaz, D.H., Heringa, B., Rolser, O., Sharma, N., Vahlenkamp, T., & Xue, C. (2023, April 25). A balancing act: securing European gas and power markets . McKinsey & Company. https://www.mckinsey.com/industries/oil-and-gas/our-insights/a-balancing-act-securing-european-gas-and-power-markets

This would render Israel and Jordan hubs between the European and Asian markets. In the 9th Trilateral Summit in September 2023 in Nicosia and “given the positive momentum unleashed by the historic Abraham Accords”, Greece, Israel and Republic of Cyprus envisioned the creation of a corridor from the Eastern Mediterranean basin to Europe by stressing the importance of energy synergies with like-minded countries and regional projects[49].

In September 2023, a plan for an Economic Corridor known as the India-Middle East-Europe Economic Corridor (IMEC) was introduced at the sidelines of the G20 Summit in New Delhi

the war in Gaza and Israel could challenge the ambitions of Israel and the wider eastern Mediterranean region to become a hub for exporting natural gas to Europe

However, as Stanley Reed from the New York Times posits, the war in Gaza and Israel could challenge the ambitions of Israel and the wider eastern Mediterranean region to become a hub for exporting natural gas to Europe[50]. The 2021 fighting had clearly evidenced that military tensions slowed the pace of investment and discouraged further incentives in gas fields in the region[51]. The Bruegel Institute concurs with this assessment, also positing the possibility of a more extensive conflict between Israel and Arab states. This scenario could allegedly jeopardize not only current Israeli gas projects with Egypt, Jordan, and Lebanon but also hinder broader energy cooperation in the Eastern Mediterranean, including the EastMed pipeline. The authors from Bruegel Institute express their fear that a potential involvement of Iran in the conflict could have far-reaching consequences beyond the region, because it could raise security concerns for LNG tankers traversing the Strait of Hormuz and international gas pipelines in the wider Middle East. Should these fears materialize, the EastMed pipeline could encounter adverse implications.

The hindrances to the EastMed pipeline's development extend beyond the Gaza-Israel conflict. Historical animosities between Greece, the Republic of Cyprus, and Turkey, exacerbated by recent gas discoveries, have escalated, nearing full-scale military confrontation. Analysts attribute this tension to Turkey's adoption of an assertive naval doctrine, termed “Blue Homeland,” asserting claims over extensive areas in the Black Sea, the Aegean, and the Mediterranean, including maritime borders and hydrocarbon reserves under the sovereignty of Greece and the Republic of Cyprus. In November 2019, President Recep Tayyip Erdogan of Turkey and Chairman Fayiz al-Sarraj of Libya signed a Maritime Delimitation Agreement, redrawing Eastern Mediterranean maritime boundaries, encroaching on the sovereign rights of Greece, the Republic of Cyprus, and Egypt. This strategic move indicated Turkey's stance as a hegemonic force in the Eastern Mediterranean, asserting that no energy projects would proceed without approval.

[38] Makovsky, A. (2022, May 2). Opportunities and Challenges in the Eastern Mediterranean: Examining U.S. interests and regional cooperation. Center for American Progress. https://www.americanprogress.org/article/opportunities-and-challenges-in-the-eastern-mediterranean-examining-u-s-interests-and-regional-cooperation/

[39] Correlje Aad & Coby van der Linde (2006) “Energy supply security and geopolitics: A European perspective” in Energy Policy, Vol. 34(5), pp. 532-543; Winrow Gareth (2016) “The Anatomy of a Possible Pipeline: The Case of Turkiye and Leviathanand Gas Politics in the Eastern Mediterranean”, in Journal of Balkan and Near Eastern Studies, Vol. 18(5), pp. 431-447

[40] Shell Global (2023). The Energy Security Scenarios. https://www.shell.com/energy-and-innovation/the-energy-future/scenarios/the-energy-security-scenarios/_jcr_content/root/main/section_926760145/promo/links/item0.stream/1679344984968/5bc8327925d66e1402040d0e79fed7291bf9b7e9/energy-security-scenarios-full-report.pdf

Turkey justifies its strategy to disrupt or halt the Republic of Cyprus's energy projects by invoking the absence of Turkish-Cypriots in the decision-making process. In response, the Republic of Cyprus cites UN Security Council resolutions 541 (1983) and 550 (1984), arguing that a “secessionist entity,” potentially acting as Turkey’s tool, cannot participate in matters of sovereignty, particularly in decisions regarding energy security[52]. Greek-Cypriots are concerned that Turkey might seek to intertwine the energy issue with broader negotiations for Cyprus reunification, potentially using it as a bargaining chip. Consequently, Turkey's strategy involves creating factual circumstances on the ground, pressuring Greek-Cypriots to include hydrocarbon development in future negotiations, if they were to resume[53]. There's skepticism about Turkey reconsidering this strategy even if the Cyprus conflict were to reach a potential resolution.

Following the principles of the relative gains approach, this strategy increases pressure on Greece, Israel, and the Republic of Cyprus as they advance the EastMed pipeline project. To propel the EastMed pipeline, investors and stakeholders must factor in the potential costs of Turkey’s opposition.

Consequently, Turkey's strategy involves creating factual circumstances on the ground, pressuring Greek-Cypriots to include hydrocarbon development in future negotiations, if they were to resume

6. Environmental Challenges: The ‘Sky 2050 Scenario’

In theory…

A third storyline through which we will briefly assess the future prospects of the EastMed is Sky 2050, a term quoted by Shell’s 2023 energy security scenarios[54]. It envisions a world rapidly transitioning to cleaner energy, driven by the urgency of addressing climate change under the Paris Agreement. It aims for net-zero emissions by 2050 and warming restricted to below 1.5°C by 2100. Fossil fuels, like natural gas, decline in relevance, making way for a decarbonized energy system, that relies primarily on electricity and upgrades the role of hydrogen and bioenergy. This comes in line with the ‘lion scenario’ of the World Energy Council, that highlights a strong commitment among countries across different levels of economic development to achieve those goals[55].

Fossil fuels, like natural gas, decline in relevance, making way for a decarbonized energy system, that relies primarily on electricity and upgrades the role of hydrogen and bioenergy

[41] Cohen J & Ian Bremmer (2023, October 30) The global credibility gap: Assessing underperformance and overreach in today’s geopolitics. Goldman Sachs. https://www.goldmansachs.com/intelligence/pages/the-global-credibility-gap.html
[42] World Energy Council. (2007). Deciding the Future: Energy Policy Scenarios to 2050. https://www.worldenergy.org/. https://www.worldenergy.org/assets/downloads/scenarios_study_online_1.pdf; San Martin Enrique (2012). Long-term energy policy scenarios for the world and the EU: A Comparative Analysis” In J. G.-V. J. Marin-Quemada, Energy Security for the EU in the 21st Century: Markets, geopolitics and corridors (pp. 87-107). New York: Routledge, p. 93
[43] Waltz, Kenneth. 1959. Man, the State and War. New York: Columbia University Press, p. 159; Grieco, J. M., Powell, R., & Snidal, D. (1993). The Relative-Gains problem for international cooperation. American Political Science Review, 87(3), 729–743. https://doi.org/10.2307/2938747
[44] Gilani, I. (2023, October 27). India-Middle East-Europe Economic Corridor: A passage of possibilities. Frontline. ++++ and Skafidas, G. (2023, October 12). Side effects of the war: Projects freeze in the Eastern Mediterranean, and wounds reopen (in Greek) . Kathimerini. ++++
[45] Mathews, S. (2023, September 23). The India-Middle East Corridor: A new Silk Route or diplomacy by PowerPoint? Middle East Eye. ++++
[46] The White House (2023, September 9). Memorandum of Understanding on the Principles of an India – Middle East – Europe Economic Corridor. ++++
[47] Abhishek Yadav (2023, September 21). India-Middle East-Europe Economic Corridor (IMEC): A Transformative initiative Connecting Continents | Asia in Global Affairs. ++++
[48] Ibid.

and practice...

The extraction and burning of natural gas release two primary greenhouse gases: carbon dioxide and methane. Methane, being more potent, particularly during the extraction, transportation, and distribution phases of natural gas, significantly impacts climate change. Global Witness, human-rights NGO focusing on natural resource-related conflicts, reports that if EastMed reached its projected operational potential (20 bcm/y) pipeline could produce more greenhouse gases than the Bełchatów coal-fired power plant in Poland – Europe's single largest fossil fuel emitter. . There is a wide consensus in the scientific community that over a span of 20 years, methane's warming

In one year, gas and methane from the pipeline could produce more greenhouse gases than the Bełchatów coal-fired power plant in Poland – Europe's single largest fossil fuel emitter

impact is approximately 86 times more potent than carbon dioxide[56]. Frida Kieninger from Food & Water Europe considers "EastMed incompatible with climate emergency" because, as the deepest laid gas pipeline on the seabed, it would cause extensive environmental disruption[57].

Experts like Dimitris Ibrahim from WWF Greece emphasize the urgency to keep the majority of fossil fuels underground to meet the 1.5°C target, warning that projects like EastMed, which involve substantial natural gas emissions, should be abandoned[58]. Nikos Mantzaris from Green Tank highlighted concerns at COP26, indicating that Europe, aspiring to be a climate leader, can't invest in gas infrastructure like EastMed, which would add significant carbon dioxide annually, hindering progress toward climate goals[59]. These perspectives raise vital questions about EastMed's alignment with emission reduction aims and the larger commitment to global climate targets.

6. Concluding Points

The key points stemming from each scenario are:

A) Markets & Institutions: the EastMed pipeline's viability hinges on factors like regional interconnectivity infrastructure and European natural gas demand. Challenges like high costs and seismic risks necessitate a stronger case for its economic competitiveness, especially amidst geopolitical tensions.

B) Regions and Empire: geopolitical tensions and regional conflicts pose significant hurdles. The existing tensions and the uncertainty on the future settlement of the Cyprus conflict could further impede the pipeline's progress. The Trilateral Agreements in light of the IMEC could potentially push the project forward; nonetheless, the escalation of the war in Gaza and Israel and a potential involvement of Iran could further jeopardize the project.

49] ANA-MPA (2023, September 4). Joint statement of the 9th Greece, Cyprus, Israel Trilateral Summit. https://www.amna.gr/en/article/757367/Joint-statement-of-the-9th-Greece--Cyprus--Israel-Trilateral-Summit
[50] Reed, S. (2023b, October 10). Israel-Gaza conflict could slow natural gas investment in area. The New York Times. https://www.nytimes.com/2023/10/08/business/israel-gaza-natural-gas.html
[51] Bousso, R., & Rabinovitch, A. (2021, May 12). Chevron shuts Tamar gas field off Israeli coast as unrest flares. Reuters. https://www.reuters.com/world/middle-east/chevron-shuts-down-tamar-gas-field-off-israel-coast-wake-unrest-2021-05-12/
[52] For more details see Adamides, C. (2020). The Cyprus Conflict Through the Lens of Securitization Processes. In: Securitization and Desecuritization Processes in Protracted Conflicts. Rethinking Peace and Conflict Studies. Palgrave Pivot, Cham. /
[53] Karakasis V. P (2020) Adding fuel to the conflict : how gas reserves complicate the Cyprus question, PhD Dissertation, Leiden
[54] Shell Global (2023)

C) Environmental challenges under the 'Sky 2050 Scenario': concerns regarding methane emissions, climate impact, and environmental disruption cast doubt on the project's alignment with climate goals. Experts caution that the project might hinder efforts to meet global climate targets, emphasizing the urgency to rethink the pipeline's environmental implications.

Klaus-Dieter Borchardt, Deputy Director-General of Energy in the European Commission, declared his opposition to the inclusion of the EastMed in the PCI list.[60] There’s a lingering question: Why is EastMed still on the PCI list? This question gains currency if we consider that in all three scenarios the future prospects of this project are slim. One argument is that ongoing feasibility studies and political factors support its inclusion, but it might be removed in the future if the new pipeline isn’t justified. Projects in the PCI list compete, and political influences and historical tendencies might keep symbolic value for projects, especially those that aren't yet constructed. Also, future changes in EU law could change how these projects are evaluated, hinting at shifts in the criteria for such listings.

future changes in EU law could change how these projects are evaluated, hinting at shifts in the criteria for such listings

In the absence of the EastMed pipeline, alternative strategies and diplomatic approaches can cultivate cooperation in the Eastern Mediterranean. Some future proposals might focus on the establishment of an 'Eastern Mediterranean Energy Diplomacy Task Force,' involving regional stakeholders to position the Eastern Mediterranean as a gas hub, emphasizing Egypt's LNG facilities in Damietta and Idku. Under the condition of a ceasefire in the Israel-Gaza war, an EU-led 'Track II' diplomacy approach, conducted unofficially under the auspices of the DG European Neighbourhood and Enlargement Negotiations, DG for Energy and the European Climate, Infrastructure and Environment Executive Agency, could involve NGOs, scholars, and former diplomats from all regional stakeholders involved to identify common ground. These alternative approaches are considered a means to depoliticize and de-securitize energy discussions on the one hand and encourage open communication and cooperation among the involved parties on the other.

[55] World Energy Council. (2007); San Martin Enrique (2012). Long-term energy policy scenarios for the world and the EU: A Comparative Analysis” In J. G.-V. J. Marin-Quemada, Energy Security for the EU in the 21st Century: Markets, geopolitics and corridors (pp. 87-107). New York: Routledge, p. 93
[55] Global Witness. (2020, October 30). Why Europe and Turkey should not fight over fossil gas we cannot use | https://www.globalwitness.org/en/campaigns/fossil-gas/pyrrhic-victory-why-europe-and-turkey-should-not-fight-over-fossil-gas-we-cannot-use/
56] Climate & Clean Air Coalition. (n.d.). Methane.
[57] Chondrogiannis, T. (2022, January 7). The climate hypocrisy behind the EastMed pipeline. Investigate Europe:
[58] Climate Change 2021: The Physical Science Basis. Working Group I Contribution to the IPCC Sixth Assessment Report https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/
[59] Chondrogiannis, T. (2022, January 7)
[60] Not only on those grounds but also because no tangible progress has been made towards its completion. See the interview in Dupont-Nivet, D., & Maggiore, M. (2020, October 12). Klaus-Dieter Borchardt, Deputy Director-General, Energy: ‘It is not for the Commission to decide anything.’ Investigate Europe. https://www.investigate-europe.eu/en/posts/klaus-dieter-borchardt