Light in the Darkness: How Can Israel-Egypt Energy Relations be Strengthened?

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The energy crisis that struck Egypt in the summer of 2024, causing frequent power outages, highlighted Israel's importance as a natural gas supplier to the Egyptian economy. Energy cooperation between the two countries, which constitutes approximately 86% of their total trade, has mostly continued uninterrupted since the outbreak of the war on October 7, 2023, despite threats from Iran and its proxies against Israeli gas facilities. Given the tensions in relations between the two nations due to the war, the energy sector has the potential to serve as a central lever for strengthening and rebuilding their ties. This can be achieved through four measures: expanding Israeli gas exports to Egypt; developing the "Gaza Marine" gas field as part of efforts to rehabilitate Gaza under alternative Palestinian leadership to Hamas; enhancing the role of the East Mediterranean Gas Forum (EMGF) as a mechanism of regional dialogue to address political, security, and energy challenges; and expanding Israel-Egypt cooperation into the field of renewable energy.

Keywords: Egypt, Israel, energy, gas, Operation Iron Swords, peace, normalization, EMGF

Introduction

Egyptian Prime Minister Mostafa Madbouly made an extraordinary public apology this past June, addressing the Egyptian people and asking for their forgiveness over the widespread power outages that afflicted the country for several hours each day. These outages sparked significant public anger against the Cairo authorities for the second consecutive summer. He assured the public that his government had developed a plan to overcome the crisis by the end of 2024.

The energy shortage in Egypt stems from several factors. First, there has been a decline

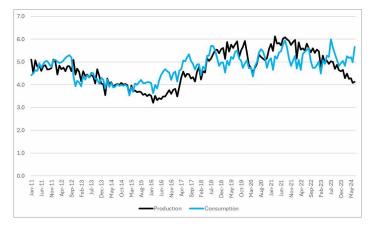
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in the output of local gas fields. For example, production at the Zohr gas field dropped by more than 40% in 2024 compared to its peak production in 2021. Currently, gas accounts

for 51% of Egypt's energy production and is responsible for 76.8% of its electricity generation. Second, Egypt's growing debt to foreign gas companies has led to reduced investments in developing gas fields in Egypt, negatively impacting local gas production. Third, there are high levels of electricity theft from Egypt's power grid, which in some areas reach 45%. Fourth, electricity consumption in Egypt has doubled over the past two decades

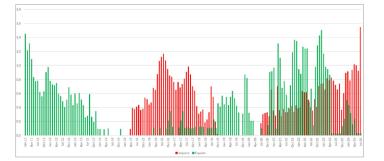
The situation reached a point where Egypt lost its energy independence for the first time since 2018 and was forced to import fuels at a cost of approximately \$1 billion per month to meet the demands of its power grid.

Figure 1. Monthly Gas Consumption vs. Monthly Gas Production in Egypt, monthly BCM, 2024–2011



Source: Joint Organizations Data Initiative (JODI)

Figure 2. Monthly Gas Imports vs. Monthly Gas Exports in Egypt, monthly BCM, 2024–2011



Source: Joint Organizations Data Initiative (JODI)

due to population growth and peaks during the summer months, when temperatures in some parts of the country soar to 47°C. Fifth, there is a slight but expected seasonal decline of about 8% in Israeli gas exports to Egypt due to increased domestic consumption in Israel during the summer.

The depth of Egypt's energy crisis is reflected in several metrics. Egyptian Petroleum Minister Karim Bedawi noted in October 2024 that Egypt's gas production had declined by 25% over the past two years. In the first half of 2024, domestic gas production in Egypt decreased by approximately 15% compared to 2023, with the second quarter of 2024 being the worst in terms of gas production in the country since 2017. At the same time, electricity consumption in 2024 surged by 12% compared to 2022. The situation reached a point where Egypt lost its energy independence for the first time since 2018 and was forced to import fuels at a cost of approximately \$1 billion per month to meet the demands of its power grid.

Furthermore, Egypt has transitioned from being an exporter of liquefied natural gas (LNG) to an importer of it. In 2022, Egypt produced LNG at an export value of \$8.4 billion. In 2023, the economic value of gas exports amounted to just around \$2.7 billion (part of the difference stems from gas prices rather than available export reserves). By May 2024, Egypt was forced to suspend LNG exports to meet domestic market demands. As of September, Egypt had even signed contracts to import 50 LNG cargoes for internal use. To Cairo's misfortune, the loss of LNG exports as a source of foreign currency coincided with a more than 60% decline in traffic through the Suez Canal and a total revenue loss exceeding \$6 billion due to Houthi attacks in the Red Sea.

Gas Relations Between Israel and Egypt Amid the War

The gas shortage presents Cairo with significant energy and economic challenges, but it also offers an opportunity to strengthen Egypt-Israel relations. In recent years, Israel has become an important gas supplier to the Egyptian economy. According to the Energy Security Report of the Israeli Natural Gas Trade Association from September 2024, Israel exported 8.7 billion cubic meters (BCM) of gas to Egypt in 2023, accounting for one-sixth of Egypt's gas consumption—a notable increase from 6.3 BCM in 2022. Gas now constitutes approximately 86% of the total trade between Israel and Egypt. The volume of gas exports to Egypt last year amounted to about seven billion shekels and is expected to grow with the development of transmission infrastructure in the coming years.

The relative stability of natural gas trade between the two countries during the war is remarkable, despite tensions over various issues such as the Philadelphi Corridor, the Rafah crossing, and the prospective role of the Palestinian Authority in Gaza. The main disruption occurred during the first five weeks of the war when gas supplies to Egypt were reduced by more than 50%. Gas extraction from the Tamar field, located about 20 kilometers off the coast of Gaza, was halted to protect the platform and its workers from missile strikes, and the operation of the EMG pipeline from Ashkelon to El-Arish was suspended due to sabotage concerns. Conversely, Israeli gas flowing to Egypt via Jordan continued uninterrupted since the onset of the war.

Amid the intense clashes between Israel, Lebanon, and Iran, Egypt's concerns over further disruptions to the flow of natural gas from Israel have grown. The Egyptian Prime Minister warned in October 2024 that a regional war could disrupt Egypt's regular energy supply and push the country into a state of emergency, which he termed a "war economy." The likelihood of this scenario increased following Iran's explicit threat to attack Israeli energy facilities in response to a potential Israeli strike on Iran's oil industry.

In practice, the impact of the regional escalation on the energy market has so far been limited. The Iranian missile attack on October 1 temporarily halted production at the Tamar and Leviathan gas fields, but operations were quickly resumed. Efforts to increase gas exports from Israel to Egypt are continuing as planned. However, the ongoing uncertainty surrounding the war and its end date is affecting foreign gas partnerships and delaying regional development plans. In October, Chevron announced at least a six-month delay in laying an additional underwater pipeline to transport gas from the Leviathan field to the production platform. Ahmed Bayoumi, an economic and energy researcher at the Egyptian Center for Strategic Studies (ECSS), warned that due to the situation, international companies are suspending existing projects and are reluctant to invest in new ones in the Eastern Mediterranean.

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Conclusions and Recommendations

Egypt and Israel have managed to maintain gas as a stable and ongoing channel of cooperation throughout most of the war, remaining resilient against security threats and political pressures. This was achieved with the understanding that gas is a strategic asset for both sides. Decoupling gas from military events and political disputes has ensured a steady energy supply for Egypt, supported its political stability and economic well-being, and provided a market for Israeli gas, generating revenue for the Israeli economy. The shared interest in energy has so far outweighed the gaps between the two countries during the war, slightly easing tensions and offering them a constructive dialogue channel during a period of strained overall relations.

At the same time, the war has raised questions about the future of the Eastern Mediterranean as an energy hub, an attractive destination for international capital investments, and a stable, reliable, and competitive gas source for the European Union, the United States, and international energy companies amidst the region's many geopolitical challenges. The war also led to the downplaying of gas ties between the countries, contrasting with the relative openness that had characterized previous years.

While the picture of Israel-Egypt relations regarding energy is encouraging compared to other aspects of their ties, the potential in this field remains far from fully realized. To strengthen and expand the positive trends, the following actions are recommended for both nations, during the war if possible, and certainly in its aftermath:

- 1. Promoting projects to increase Israeli gas exports to Egypt. The planned gas pipeline from Ramat Hovav to Nitzana, approved in August 2024, is a step in the right direction, but accelerating the development of additional gas transportation infrastructure should be prioritized. According to the Natural Gas Association (representing the operators of the Leviathan and Tamar gas fields), delays in constructing the Ashalim-Nitzana and Ashdod-Ashkelon gas pipelines cost the Israeli economy approximately 2.35 billion shekels annually. These projects' importance is underscored by Egypt's gas shortages and increased electricity consumption, presenting an opportunity to deepen bilateral relations.
- 2. Israeli support for Egypt's aspiration to develop the Gaza marine gas field after the war. This support should be conditional on it contributing to establishing an alternative to Hamas for Palestinian rule in Gaza and facilitating its reconstruction. In February 2021, Egypt and the Palestinian Authority signed a memorandum of understanding to cooperate in developing the field and transporting gas to Gaza and Egypt for liquefaction and domestic use. The estimated gas reserve in the field is 30 BCM, with an annual production potential of 2 BCM, most of which would be sold to Egypt, providing

the Palestinians with an estimated total profit of \$2.7 billion. In July 2023, Israel agreed to advance the project under the condition that its security and political interests were preserved, but the war has since suspended it. Renewing support for the project could alleviate Egypt's gas shortage, help stabilize Gaza, and uproot conspiracy theories prevalent in Arab and Western media alleging Israeli intentions to seize Palestinian gas resources.

- 3. Transforming the Eastern Mediterranean gas forum into a more significant regional framework, leveraging it as a dialogue channel for addressing political, security, and energy challenges in times of crisis. The forum, which already includes eight full members (Israel, Egypt, France, Greece, Cyprus, Italy, Jordan, and the Palestinian Authority) and three observers (the European Union, the United States, and the World Bank), is a unique platform for advancing gas cooperation. The war has highlighted that safeguarding regional energy security requires member states to work together on political and security levels to de-escalate tensions and resolve conflicts, establish a stable regional order, and protect strategic infrastructure from military and terrorist threats. Moreover, global and regional energy needs underscore the forum's interest in expanding its scope to include renewable energy to maintain its international standing, enhance its long-term relevance, and maximize potential cooperation among its members. In the future, admitting new members such as Turkey, Lebanon, and Libya could be considered if political conditions permit.
- 4. Developing joint Israeli Egyptian programs to diversify energy sources, with an emphasis on renewable energies. Cooperation in this field, particularly in solar energy, would reduce mutual dependence on natural gas and enhance the energy security of both nations. Such programs would

benefit from combining their comparative advantages, such as Israel's technological expertise and Egypt's favorable geographical and climatic conditions. Joint projects in this direction could attract international capital investments and strengthen Egypt and Israel's standing in the global energy market, subject to improved security conditions and risk mitigation in the region.

In conclusion, despite the increasing geopolitical challenges since October 7, 2023, natural gas remains a stable anchor in Israel-Egypt relations. Expanding joint energy projects could serve as a lever for strengthening bilateral ties and returning them to a trajectory of cooperation, integration, and regional prosperity. At the same time, it is crucial to pursue stable political and security arrangements in the Palestinian and Lebanese arenas to create a supportive climate necessary for realizing the energy and economic interests of both sides.

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