

In this thought-provoking essay, the 20<sup>th</sup> policy publication to be released through GMF's Eastern Mediterranean Energy Project, Nikos Tsafos calls for straight talk and realism on what is needed to develop Israel's offshore resources. The much heralded "outline" agreement between the authorities and the industry is necessary but not sufficient. Billions of dollars of investment will be required if large offshore gas reservoirs are not to remain stranded. Mobilizing the necessary investment funds is all the more challenging at a time of low oil and gas prices. Only a stable business climate and a concerted effort to address the concerns of potential investors will enable Israel to realize the full benefit of its offshore resource wealth.

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## Israeli Gas: Too Soon to Declare Victory

by Nikos Tsafos

The only obstacle to Israel's capitalizing on its gas bonanza is government interference, according to the dominant narrative in the country; if only the authorities approve a new framework for the gas sector, an economic and geopolitical windfall will follow.<sup>1</sup> This narrative has some truth to it. Hitherto the government has done more to hamper development than to enable it. But the assumption that billions of dollars of investment will follow once the Israeli government gives the green light, and the inevitable appeals have been exhausted, is wishful thinking. The resolution of the antitrust stand-off will heal a self-inflicted wound but will do little to address the other challenges holding back Israeli gas. Only when these are addressed can Israel begin to sell its surplus gas in foreign markets and, even then, the benefits will be fewer than advertised. Israel needs a reality check on what it will take for its gas to reach export markets and what to expect when, and if, it does.

### Gas Development Takes Time

Developing major gas projects is a very demanding and lengthy process. In Qatar, it took 25 years after the discovery of the North field for the first lique-

<sup>1</sup> For example, see Steven Scheer, "How Israel turned a gas bonanza into an antitrust headache," Reuters, October 1, 2015, <http://uk.reuters.com/article/2015/10/01/uk-israel-economy-natgas-insight-idUKKCNORV40620151001>

fied natural gas (LNG) to be exported (from 1971 to 1996). The Gorgon field in Australia, which will soon come online, was discovered in 1981. The fields supplying the Sakhalin-2 LNG project in Russia were discovered in the mid-1980s, and the first LNG was exported from there in 2009. It took a similar length of time for the Snøhvit field in Norway to be developed (discovered in 1984, first LNG produced in 2007). Gas flowed within seven years of discovery at Pluto LNG in Australia, one of the fastest such projects to be developed. A typical best-case scenario is a decade from discovery to exports. Some world-class discoveries such as the Natuna D field in Indonesia (discovered in 1968), the Prudhoe Bay field in Alaska (1968), or the Shtokman field in Russia (1988) have still not found a path to market. Some may never be developed at all.

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The reason for these delays is that gas development is capital intensive and has a long payback period for their investors. As such, project sponsors work diligently to map and address every possible risk. During this process, the development concept might change as proposed pipelines turn into LNG facilities or vice versa; new partners come in and old partners leave; governments change the rules to give the project a boost or to improve their own take; and markets and costs change, prompting project sponsors to revise their plans repeatedly.

This long development cycle is frustrating. Project sponsors want to recoup their original investments; host governments want to deliver the benefits that they have promised to their voters, who, in turn, are eager to see these materialize; and possible buyers, financiers, builders, and service providers all await their share of the promised gains. Meanwhile, there is

a chorus claiming that gas must be developed as soon as possible, before a “window of opportunity” closes. After some time, fatigue creeps in as the participants lose faith in the process and the public turns cynical.

Projects succeed when they have capable and committed partners, who engage stakeholders at the local, national, and international level, and who take advantage of a favorable political, commercial, and financial environment to move ahead. Often this process takes years and even decades to complete. Slow progress can be particularly frustrating for Israel given its experience with Mari B and Tamar, which were developed relatively quickly. These fields were geared to supplying the local market and so did not face many of the risks that come with export projects.

### Challenges in Developing Israeli Gas

Gas in Israel has its share of advantages and disadvantages. Leviathan and Tamar are large fields, bringing economies of scale. The gas is dry and of high quality, so processing is relatively inexpensive. As the gas is fairly close to national and regional markets, infrastructure costs associated with development should not be prohibitive.

But, for the moment, there is no obvious outlet for all this gas. There are several options but no clear winner. A pipeline to Turkey would tie the gas into a single market where there is considerable competition and that could be affected by changing political relations between Israel, Cyprus, and Turkey. A pipeline to Southeast Europe would be very costly and face competition from the Caspian region and other sources. Any pipeline geared to currently expected production levels would not offer economies of scale if there were additional discoveries; a whole new pipeline would then be required. A liquefaction facility onshore Israel would face obstacles in securing construction permits and would be a major terrorist target. A liquefaction facility onshore Cyprus could be a solution, but this would be the first time in the world when

gas produced in one country would be exported as LNG from another. A floating LNG facility at either Tamar or Leviathan would probably be too small for the gas available and vulnerable to attack. In any event, floating LNG is a breakthrough technology without any functioning projects as yet. The market in Egypt for imported gas is limited, while gas for re-export needs a change in commercial structure to be viable and is exposed to changes in the political relationship between the two countries. Finally, exports to Jordan, if they materialize, would be insufficient to absorb Israel's available gas,

In short, project sponsors are constantly weighing several development paths, trying to find a balance between risk and reward with which they are comfortable. In doing so, they face two additional challenges. First, any option must be durable, which means it needs to survive the changes in politics, economics, and markets that are likely to occur over the next 15 to 20 years. Shocks can come from many sources: Israeli politics could lead to changes in taxation or the amount of gas that is permitted to be exported, despite assurances of regulatory "stability." Changes in regional politics could threaten the sustainability of exports, as they did with Egyptian exports to Israel. Non-state actors may threaten or attack gas infrastructure, raising the risk premium and thus the cost of development. All these risks need to be managed at a time of lower oil and gas prices worldwide.

The second challenge is specific to Tamar and Leviathan. The project sponsors are upstream companies that focus on exploration and production rather than the mid and downstream aspects of the gas business. In practice, this means that they prefer others to shoulder the risks of building infrastructure and marketing gas while they themselves sell gas at or near the wellhead for a predictable price. This structure, however, shifts many of the risks from the producer to the buyer, who, by guaranteeing a price, bears a disproportionate risk relative to the reward.

Given these challenges, what can stakeholders do to facilitate the development of Israeli gas? First, the public conversation in Israel about gas needs to be upgraded, and secondly, problem-solving should replace problem-making. Only when challenges are acknowledged and addressed head-on can available Israeli gas find its way to new markets.

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### Upgrade the Conversation

In Israel, the antitrust issue has been handled with little informed public debate and scant attention to institutions and processes.<sup>2</sup> From an investor's perspective, an apparent resolution through the use of political force is no resolution at all, because of its precariousness. The Knesset may change the law in the future despite the Israeli government's commitment to "stabilization." Indeed, any "stability" commitment contradicts the principle of parliamentary sovereignty. Stability comes from engagement with stakeholders and from public understanding and support, which can only emerge from a frank and open national conversation about natural gas.

This public conversation should consist of four elements. First, the authorities should reset the tone on antitrust issues and more candidly explain to the population the challenges of creating competitive conditions in a small national market. Ensuring competition in a market with limited buyers and/or sellers is difficult, as is balancing domestic needs with

<sup>2</sup> See Michael Leigh, "More straight talk needed on offshore energy," *Times of Israel*, July 30, 2015, <http://blogs.timesofisrael.com/more-straight-talk-needed-on-offshore-energy/>

exports.<sup>3</sup> The investment climate is at least as important as the ownership of resources, the main focus of the anti-trust narrative until now. The country should seek to attract investors rather than dissuading them by restricting the amount of gas that can be exported. New investment could itself create more competition in the small Israeli market. Multiplying supply sources will not in itself create more effective competition when there is one big buyer — Israel Electric Corporation (IEC). Markets can only develop through multiple buyers and sellers.

There are many tools to address antitrust concerns. The state can investigate accusations of market abuse and impose remedies. It can oblige companies to compete against each other by marketing gas individually rather than jointly.<sup>4</sup> In short, there is a sensible middle way to create competition in this nascent market without claiming that there is a major antitrust threat or invoking “national security” to override legitimate concerns about how the gas market functions.

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Secondly, it would be better for Israeli leaders to talk about the country’s improved energy security rather than dwell on the notion of insecurity. The improvement in Israel’s security of supply in just a few years has been remarkable. When Egyptian gas was cut off, IEC had to turn to oil to make up most of the difference, leading to a doubling of fuel costs within two

<sup>3</sup> For example, see enalytica, “How LNG Affects Local Markets? Lessons for Alaska from Western Australia,” January 2015, <http://enalytica.com/#/research/2015-01-exports-vs-domestic>

<sup>4</sup> Nikos Tsafos, “A simpler way to market competition,” *The Jerusalem Post*, January 19, 2015, <http://www.jpost.com/Opinion/A-simpler-way-to-market-competition-388269>

years and an 11 percent increase in CO<sub>2</sub> emissions.<sup>5</sup> Now, as domestically produced gas has entered the system, the economic and environmental benefits are clear. Greater use of natural gas in sectors such as transport and agriculture could deliver additional benefits. The system is still too reliant on a single gas field, Tamar, but that dependence will diminish when Leviathan and smaller fields come online. It is important to explain the benefits that have accrued so far in order to win public understanding and support for the difficult task of managing the sector fairly and efficiently.

Thirdly, the official narrative should move away from the supposed “window of opportunity” for developing Israeli gas before competing suppliers such as Iran, for example, reach the market. A sense of urgency can be useful in streamlining decisions, but experience shows that there is no such window in practice. Opportunities come and go; some options are more attractive than others at different times. Sometimes it pays to move quickly, and at other times it is best to wait. Many companies rushed to develop LNG facilities for imports into the United States because of an impending gas shortage, just a few years before shale gas took off. Gas is a long-term business and there is no single window of opportunity that should obsess the Israeli public.

Fourthly, the public conversation should stop advertising the “geopolitical benefits” that Israel is supposed to reap by developing its gas. Close energy relations rarely translate into closer political relations, as Israel’s own experience with Egypt shows. As with Egypt, energy relations follow political relations: they can reinforce ties when relations are cordial and get in the way when relations deteriorate. Energy provides less political leverage than is often claimed. If energy dependence led to political dependence, Russia would

<sup>5</sup> Israel Electric Corporation, “Investor Presentation as of June 30, 2015 – North America Investor Meetings,” <https://www.iec.co.il/en/ir/pages/investorpre.aspx>; International Energy Agency, CO<sub>2</sub> Emissions From Fuel Combustion Highlights 2015, <http://www.iea.org/publications/freepublications/publication/co2-emissions-from-fuel-combustion-highlights-2015.html>

have far fewer problems in Ukraine.<sup>6</sup> If the Israeli public is sold a set of presumed geopolitical benefits, disappointment and recriminations are likely to follow.

### Solving Problems

A robust public conversation should help manage expectations and deepen the foundations for project development. But there are three more areas that require attention.

First, new commercial partners may be needed to enable gas development to move forward. The entry of BG Group into Block 12 in Cyprus, for example, may help to resolve the risk-reward conundrum that has held back potential exports from Cyprus to Egypt.<sup>7</sup> To encourage new partners to invest in discovered fields, the sovereign's main role is to provide an attractive investment environment. Noble Energy cited the changes in taxing gas exports proposed in March 2014 as having "a detrimental effect on [its] ability to reach commercial terms with Woodside,"<sup>8</sup> which was negotiating its entry into the Leviathan field at the time.

Israel faces one additional hurdle: companies might hesitate to invest for fear of damaging their relations with other Middle Eastern producers. The Israeli government could reduce this risk by inviting and encouraging Egyptian firms to buy Israeli gas and even participating directly in its development as co-investors. Such a prospect would provide political cover and might convince other companies to look at investing in Israel differently.

Secondly, the Israeli government should address certain risks that worry investors. *Force majeure* is a major concern. Israel has a compensation mechanism for critical infrastructure in case of damages caused

6 Nikos Tsafos, "Ukraine and the Limits of Gas Diplomacy," *National Interest*, March 7, 2013, <http://nationalinterest.org/commentary/ukraine-the-limits-gas-diplomacy-10013>

7 Nikos Tsafos, "Cypriot Gas After BG's Entry," LinkedIn Pulse, November 23, 2015, <https://www.linkedin.com/pulse/cypriot-gas-after-bgs-entry-nikos-tsafos>

8 Noble Energy, 10K 2014, p. 6

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by acts of war and terror, but the amount of financial recovery through the fund is not guaranteed.<sup>9</sup> Such uncertainty raises risks and costs. Export sustainability is another risk. Companies seek assurances that Israel will not go back on its commitment to export gas if circumstances change, for example if the regime changes in a destination market or if there are outbreaks of violence there. When the United States faced a similar concern from investors about LNG exports, the Department of Energy issued clarifications to reassure investors that it would not regulate exports in a way that affected prices.<sup>10</sup> For its part, Israel could provide assurances about its commitment to maintain exports under most foreseeable circumstances and about the implications of any future suspension of exports.

The Israeli authorities might even consider an extension of its compensation mechanism to cover, in part, some of the lost revenue arising from specific events such as regime change in destination markets or war. Such moves would reassure investors who are considering investment in Israel's gas industry.

9 Noble Energy notes that "In Israel ... we insure against acts of war and terrorism in addition to providing insurance coverage for normal operating hazards facing our business. Additionally, as being part of critical national infrastructure, the Israel offshore and onshore assets are included in a special property coverage afforded under the Israeli government's Property Tax and Compensation Fund Law; however, the amount of financial recovery through the fund is not guaranteed." Noble Energy, 10K 2014, p. 78

10 King & Spalding Client Note, "U.S. Department of Energy (DOE) Clarifies its Position on

Modification or Revocation of DOE Liquefied Natural Gas Export Authorizations," November 4, 2013, <http://www.kslaw.com/imageserver/kspublic/library/publication/ca110413.pdf>

Thirdly, public finance will probably be needed to develop the gas sector fully.<sup>11</sup> State support has proved essential to reassure investors in projects that are far less risky than Israeli gas. The Israeli authorities could explore additional options, including investment guarantees and direct investment in the gas fields or the enabling infrastructure. Properly formulated, such initiatives could align the interests of the sovereign with those of project sponsors and communicate the state's support for the development of the gas sector.

Unexploited Israeli gas might stay in the ground for years to come without at least partial resolution of this rather long list of challenges. The authorities should make it a priority to create a propitious climate for the development of the country's gas resources. Large-scale projects only succeed if the major stakeholders work tirelessly to resolve issues holding back development. An honest public dialogue that is reasoned rather than hyperbolic would do much to improve the climate. All parties need to address the tangible issues that delay development and aim for solutions that promote the interests of both the state and private parties. It is only when such changes take place that Israel can hope to realize the true potential of its newfound wealth.

<sup>11</sup> See Anastasios Giamouridis and Nikos Tsafos, "Financing Gas Projects in the Eastern Mediterranean," The German Marshall Fund of the United States, July 2015, <http://www.gmfus.org/publications/financing-gas-projects-eastern-mediterranean>

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#### **About the Author**

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