

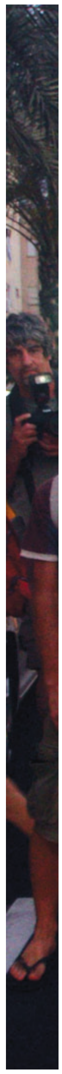

# Whose gas is it?

## It is vital that development of Israel's gas fields should move ahead rapidly

**AT ITS** regular Sunday meeting on June 23, the Cabinet decided to authorize the retention of 60 percent of the country's natural gas reserves, or 540 billion cubic meters (BCM), for domestic use, with the remaining 40 percent to be exported.

The decision was carried by a vote of 18 to 3, with only Environmental Protection Minister Amir Peretz, Communications Minister Gilad Erdan and Health Minister Yael German opposing the move. Prime Minister Benjamin Netanyahu said the decision would meet Israel's natural gas needs for the next 29 years, and also add $60 billion in tax and royalty revenues over the coming two decades.

A key provision in the decision calls for supplying natural gas to Jordan and the Palestinian Authority, outside of the 40 percent set aside for export. Jordan needs the gas for producing electricity and for its Dead Sea chemical industries.

However, a great many prickly questions arise from this landmark decision, including the manner in which it was made.

***Why did the government zigzag?***

Basically, due to public pressure. There have been two Tzemach Committees, named after the chair of each, Shaul Tzemach, director general of the Energy and Water Ministry. The first, formed in October 2011, reported last September and recommended keeping 450 BCMs for domestic use and exporting the rest, or about half. A public outcry and a new government after the January elections led to a new Tzemach Committee, which recommended what the cabinet approved on June 23 – reducing gas exports to 40 percent of the total yield.

***Why did the cabinet not present its decision to the Knesset for debate and approval, as democracy requires?***

Two reasons: First and foremost – haste: As the first Tzemach Committee noted, "The rationale for setting a clear government policy as quickly as possible is to create certainty for leaseholders and licensees and to provide an incentive for them to develop the gas fields, so as to ensure the supply of gas required for domestic market obligations. In the past year, the Israeli economy has 'paid the price' for the delay in the supply of natural gas… Delaying the development of the Leviathan reserve by one year will cause, among other things, a direct loss of income to the state on a scale of between $400 million and $700 million."

For more than a year, after the supply of Egyptian natural gas was cut off, Israel was forced to import expensive fuel for generating electricity. A Knesset debate on the subject could have created long delays in bringing the gas onshore, even though MK Avishai Braverman, head of the Knesset Economics Committee, promised to expedite discussions.

And second – legalities: Energy and Water Minister Silvan Shalom notes that the cabinet decision is based on the existing Petroleum Act, first enacted in 1952 and revised several times, which authorizes the government to decide how to tax and utilize Israel's oil and gas resources. Had the natural gas decision required new legislation, it would have to be submitted to the Knesset. But it did not.

***Whose gas is it anyway? And how much is there?***

The offshore deposits of natural gas, estimated at 900 BCM, belong to the people of Israel. The rights to the gas in the Leviathan field, the largest find ever in the Mediterranean, belong to Noble Energy, which made the discovery (40 percent), Delek Drilling (23 percent), Avner Oil Exploration (23 percent), and Ratio Oil Exploration (14 percent). Noble is an American firm; the rest are Israeli. Delek Drilling is controlled by Israeli tycoon Yitzhak Tshuva. The government sold Noble the rights to explore for gas in the Mediterranean, and the US company won the lottery when it found the field.

The explorers and investors own the gas in one very important sense. If they do not invest the billions of dollars in infrastructure needed to transport, process and possibly


Hundreds protest in Tel Aviv, in June, against the government's decision to permit the export of 40 percent of Israel's natural gas reserves, threatening violent demonstrations such as the ones revolving around the issue of Gezi Park in Istanbul

liquefy the gas, it is worth nothing to anyone. So they are demanding, and will receive, sufficient profits to justify their investment, right off the top.

The Australian company Woodside has reportedly offered to buy 30 percent of the Leviathan field. The terms – $696 million upfront, $200 million once Israel passes laws permitting LNG (liquid natural gas) exports, and a further $350 million once the Leviathan consortium approves an LNG operation. This would provide some of the crucial funds required for building the infrastructure. Turning natural gas into liquid so it can be transported by ship is very costly. Nobody knows if the decision to cut gas exports from half to 40 percent will endanger the Woodside investment by reducing its profitability and lengthening the payback period.

The West Australian newspaper reported late June that Woodside is reconsidering its offer, instead considering joining a group that will build a $6-$8 billion LNG plant in Cyprus. Leviathan partners Noble Energy and Delek have apparently signed a memorandum with the Cypriot government to build an LNG plant there, but Woodside claims that they lack the know-how to do so. Cyprus, mired deep in economic crisis but owning a major gas field next to Leviathan, desperately needs the gas to revive its stagnant economy. The Tzemach Committee recommended building an LNG plant only on Israeli territory, for strategic reasons.

***But what about the rest, after the investors take their profits off the top?***

Norway exports some 87 percent of its gas. But there, every dollar of state revenue that is generated is stashed into a sovereign fund set aside for future generations and invested abroad. With wise investments, Norway's fund today is the largest in the world, surpassing that of Abu Dhabi last year, and worth (in 2012) $656 billion, or nearly 2.5 times Norway's gross domestic product. Both the people of Norway and its governments seem perfectly happy to set aside every oil and gas dollar for the future.

Israel, too, is setting up such a sovereign fund; but its mandate remains vague. Many fear that future cash-strapped governments will use it to fund current spending.

***Is there a downside to the natural gas windfall?***

Yes, there are at least two. Firstly, former Bank of Israel governor Stanley Fischer, who ended his term in office on June 30, urged that the cash from gas exports all be invested abroad. And why? To avoid "Dutch disease" – a syndrome named after the rapid appreciation of Holland's currency after gas discoveries in the 1960s brought in a flood of dollars, which ruined the country's industrial exports.

Fischer's major challenge during his eight years in office was to keep the shekel from strengthening excessively against the dollar. On numerous occasions, the Bank of Israel bought as much as $100 million a day to avoid shekel-dollar appreciation. Incoming Governor Jacob Frenkel is thought in principal to oppose exchange-rate intervention by the Bank of Israel. Israel could suffer major damage to its high-tech industry if gas revenues cause the shekel to appreciate and thus make export goods and services more expensive, in dollar terms.

The second downside to natural gas is easy to forget. When it comes to producing an equivalent amount of heat, burning natural gas emits 30 percent less carbon dioxide than burning oil, and 45 percent less than burning coal. But, counsels Haifa University Prof. Ofira Ayalon, my Neaman Institute colleague who works closely with both the Energy and Environment ministries, gas is still a fossil fuel and each BCM we burn adds to global warming. Natural gas is definitely not green, although it is greener than coal or oil.

We must not let the natural gas windfall halt or slow efforts to find alternative fuels that add zero carbon dioxide to our suffering atmosphere. A 2010 report by America's Resources for the Future think tank, based in Washington, sees natural gas only as a "bridge fuel during the transition [to clean energy]… and as a bridge fuel for transportation."

***How can Israel best exploit its windfall of natural gas?***

This is a far more important question than how much gas to export. There are many interesting options. One is to run cars and trucks on CNG – compressed natural gas. Another is GTL –gas to liquid, transforming natural gas into liquid fuel for cars and trucks. Qatar already operates a huge plant to do this. Building one is expensive but probably worthwhile. Israel should become a showcase for the world on how to live without oil. Yet another option is GTC – gas to chemicals, making downstream products crucial for our daily life, currently made from expensive liquid fuels.

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***How certain can we be that Israel's natural gas reserves are indeed 900 BCM?***

Totally uncertain. The fact is nobody really knows how much gas exists in the new Leviathan field. As Ayalon explains, gas reserves of the Tamar gas field, now in production, are already proven. But the reserves of the Leviathan field, a wide and rather shallow reservoir, are still to be confirmed. Thus, that widely-quoted 900 BCM figure is a wild guess. Recent exploratory wells (Sarah and Mira) have all been dry. There could be huge new fields of gas yet undiscovered, or less than we think.

Nobody knows for certain. As Sami Peretz, an editor at the business daily, The Marker, observed, "There's no way of knowing how many more [gas] reserves will be discovered, what the price of gas will be in the future, or what kinds of alternative energy will be developed."

The Tzemach Committee was shooting in the dark, to the best of its ability; and so is the cabinet. To pretend otherwise is to mislead.

***Bottom line – right or wrong to export 40 percent?***

According to Dr. Gilead Fortuna, a former senior executive at Teva, former CEO of Chemical and Fertilizers Ltd. and also a Neaman Institute colleague, "The decision... is probably a good compromise, if properly executed, given the current constraints. Further exploration and proper use of the resources demand that gas be exported. However, the 40 percent [for export] should be from proven reserves. This implies that exports should begin with small quantities and increased gradually as gas resources are further proven. Today's technology enables us to do this, with small LNG (liquid natural gas) installations that expand as proven reserves increase."

Fortuna adds that "resources to secure the gas fields and supply lines should be part of the expenses paid for by export revenues." In saying this, he draws attention to the security issue and the need to allocate resources towards it.

He also observes that the companies involved took a huge risk by investing in gas exploration. "From experience gained worldwide," he notes, "Israel's gas reserves will increase further, if there is proper motivation for exploration."

Fortuna emphasizes that "there is an urgent need to begin expanding the gas-to-chemical venues, building high added-value industries based on the natural gas and innovation in process industries. This fits well with using the gas to make liquid fuel for transportation. It will strengthen future industrial growth and enable Israel to export higher added-value products based on the gas." He stresses that an assured long run natural gas price for Israeli industry should be an integral part of the export decision.

***Does the cabinet decision extend to other natural resources beyond gas?***

It does indeed. As Fortuna notes, taxes and royalties on Israel's other natural resources "need to be revisited" – e.g. Dead Sea chemicals. When government-owned resource companies were privatized, the royalty payments were practically unchanged. "There is widespread agreement that they now need to be readjusted," Fortuna says. And, indeed, a process to do so is already underway.

About a year ago, I wrote in The Jerusalem Report (July 24, 2012) that massive natural gas discoveries all over the world, along with fracking technology, may help build Mideast peace by weakening the Arab nations' crude oil weapon. That has not come true – yet.

Instead, the gas discoveries have brought dissension within Israel, among groups that resemble children squabbling over a wealthy deceased parent's will. For the good of everyone, it is vital that development of the gas fields should move ahead rapidly; time lost is money lost for all and forever. ■

*Shlomo Maital is a senior research fellow at the S. Neaman Institute, Technion*