HAARETZ.com

Israel's gas reserves insufficient for exports

Opinion submitted to government panel says fields will be depleted in less than 40 years.

By Itai Trilnick | Jul. 18, 2012 | 5:16 AM

Israel will need 50% more natural gas than has been forecast until now and its offshore reserves will be empty in less than 40 years, two of the government's chief scientists said in a letter that the government chose not to publicize.

Three months ago, when the Tzemach Committee appointed to draft a natural gas policy published its interim reports, quite a few eyebrows were raised. This wasn't because the committee backed the proposal to export half the natural gas in the offshore reserves; it had been considering this from the beginning.

What was surprising was a letter that followed the report's publication, written by the Environmental Protection Ministry's director general, Alona Sheffer-Caro, a member of the committee.

In the letter, she said she objected to the committee's conclusions, and noted that she hadn't been the only one.

The Environmental Protection Ministry's stance had been publicized in advance, but Sheffer-Caro stated in her letter: "Remember the letter from the chief scientists from the Energy and Water Ministry and the Environmental Protection Ministry stated that there had been multiple errors in the Natural Gas Authority's projections of natural gas demand, which is going to be significantly higher than even the authority's maximum projection."

In other words, the quantity of gas that the regulator stated Israel needs to keep for itself rather than export is way too low.

It turns out that this was not simply a letter, but rather an in-depth report that took months to prepare. It was submitted to the committee in March.

But it was never published on the committee's website along with all the other opinions submitted - although it was immediately posted after TheMarker recently asked the Energy and Water Ministry for comment. In fact, aside from Sheffer-Caro's letter, no mention was ever made of its existence.

This could be because its conclusions were even harsher than those voiced by other opponents of exporting gas, and its criticism of the gas authority is even more strident than that of the Environmental Protection Ministry.

However, TheMarker has obtained a copy.

"We believe Israel should increase its use of natural gas by 2020 and should not export gas," wrote Sinai Netanyahu and Shlomo Wald, the chief scientists of the Energy and Water Resources Ministry. "The Natural Gas Authority's estimates are lacking. There's a gap of 100 to 150 billion cubic meters between the demand projections that were presented to the committee and the most recent projections. The gas reserves are likely to last even less than 40 years!" they wrote, exclamation mark and all.

Yet last week, Natural Gas Authority head Shuki Stern stated during a public hearing held by the Tzemach Committee that there had indeed been an error in his authority's demand projections, and that it should have told the committee that Israel needs to keep 501 billion cubic meters for its own use, and not the 417 billion it had previously estimated - a difference of 20%.

Future generations' needs

The Tzemach Committee's recommendations were based on the principle that Israel needs to make sure it has enough gas to meet its needs for the next 25 years before it can think about exporting. It received two estimates regarding how much gas this is: one stated that the country would need 364 billion cubic meters of gas, while a more conservative estimate stated it might need up to 543 billion.

But the chief scientists say that by 2040 the country will need 650 billion cubic meters. Past that point, Israel will be consuming 40 billion cubic meters of gas a year, they forecast. This means that even if Israel chooses not to export any gas, it will entirely exhaust its offshore reserves - which include the world's largest natural gas finds of the past decade - by the year 2055. And that doesn't even take into account the fact that not all the gas is likely to be commercially extractable, they note.

"The more gas we use now, the sooner we'll need to start importing gas or oil or to find alternative technology," they wrote. "This means that quickly exhausting the reserves will leave us without electricity, while gas alternatives will be very expensive, dangerous, polluting or import-dependent," they said, calling on the government to take into consideration future generations' needs when deciding how much gas to use.

Furthermore, all existing alternative technologies are inferior to natural gas, the two wrote. Nuclear energy is dangerous and politically charged while coal is polluting and would make the country dependent on energy imports. Renewable energy sources such as wind and sun cannot be stockpiled, which means that they could fill no more than 10% of the country's power needs.

This means that if Israel runs out of gas, it will be forced to return to oil to meet its energy needs, even though global oil production is expected to start declining by 2035. They cited other researchers who found that if oil output drops by even 15%, its price is likely to spike by 550%.

They also recommended that the state buy natural gas to keep in storage for times of crisis. This would also enable the development of local gas industries, which would not necessarily be economically worthwhile should the drilling companies export part of their gas.

A little modesty

One of the Tzemach Committee's base assumptions was that the local gas market could be competitive only if exports were allowed.

The scientists countered: "Actually, exporting gas will raise its price within Israel, since the sellers will have another potential market, and thus prices will be set based on current spot prices."

Nor are they swayed by the committee's assumption that exporting would be necessary to give the drilling companies the financial backing for their operations.

"If it's proven that financing and developing the gas fields is a significant financial risk for the gas companies, the state could consider buying the gas from them in order to avoid losing this strategic natural resource," Netanyahu and Wald state. "That's a rational risk premium that Israel should consider paying."

The state could even purchase the gas without it actually being extracted from the offshore reserves, they added.

In any case, selling gas overseas is becoming less economically viable, they said, noting that global gas prices dropped over the past 18 months.

"Careful thought should be put into determining whether Israeli gas suppliers would have advantages over their international competition, particularly in Europe, Asia and North Africa," they wrote. International competitors will have the advantage of economies of scale, while Israeli companies would be relatively small players, they note.

"Even if all the potential gas reserves within Israel's territorial waters turn out to exist, Israel will never be a global player in the natural gas market. A minimal level of modesty is needed to understand that given Russia has 44,000 billion cubic meters of proven gas reserves; Iran, Algeria, Qatar and Egypt have tens of thousands [of billion cubic meters]; and the United States has massive quantities of gas shale - Israel is a marginal player."

They also dismiss the cabinet's argument that exporting gas would give Israel a diplomatic advantage. "Israel's geopolitical gains from exporting gas would be minimal. In comparison, the importance of keeping this gas in strategic reserve is great," they said.

Yet the scientists recommended waiting to decide whether to export gas until the state finalizes its strategic plan for the natural gas economy in 2014; it's too difficult to make such decisions without a master plan, they said.

Ultimately, Israel needs to adjust its economy to the reality of massive gas reserves by using more gas itself before it can consider exporting, stated Netanyahu and Wald. A reasonable time to start exporting under such a scenario would be 2020, they said.

In response, the Energy and Water Resources Ministry said the report was never officially submitted to the committee, and arrived only after the hearing process was finished. "This was the first interministerial committee that held a public hearing, and all its material has been available to the public from the first day," the ministry's statement said.