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## Natural Gas Deposits Improve Israel's **Energy Outlook**

By ETHAN BRONNER

JERUSALEM — For decades, Israelis have taken perverse pride in what they lacked — oil and gas deposits. Few countries had looked so hard with so little result. Obliged to live off their wits, Israelis turned their country into a high-tech haven.

But enormous deposits of natural gas have been detected off the country's northern coast. Last year, the United States Geological Survey estimated that more than 120 trillion cubic feet of recoverable gas reserves lie beneath the waters of the Eastern Mediterranean, most of it within Israeli territory. Several months after the report, another field of 8.7 trillion cubic feet was found off Israel and a second, twice that size, was detected and is thought to have a 50 percent chance of proving out.

Christopher Schenk, a geologist who led the Geological Survey's study, said in a telephone interview that there was little doubt of the area's enormous gas potential. Israel's energy needs will easily be filled for the next generation by the gas, and the country could well become an energy exporter. Energy companies have been helping drive the Tel Aviv Stock Exchange into a swirl of anticipation, and the talk has grown heady.

"This is a huge deal that could change the geo-strategy of the region and Israel's resources for years to come," commented Einat Wilf, a member of Parliament who serves on the foreign affairs and defense committee.

The gas fields went undeveloped all this time in part because the big Western oil companies did not want to offend the major Arab producers by working with Israel. And their size is still modest in comparison to, say, those in Iran, with more than a quadrillion cubic feet of proven reserves, and even those in the United States, with nearly 250 trillion cubic feet of proven reserves.

But they are bringing with them a series of keen challenges, including heighter with Lebanon over the boundaries of the gas fields, fears of rocket attacks, a c over the location of processing plants, an ugly battle over government royaltic



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that Israel could blow its windfall and turn into a nation of single-resource slackers.

"Everyone is dreaming about a golden calf," lamented Brenda Shaffer, an energy policy specialist who teaches political science at the University of Haifa. "We should be thinking about reducing pollution, establishing energy security and reordering our priorities. Our coalition system leads to a very politicized allocation of money. Unfortunately, more money won't mean it will be spent differently."

The costs and potential profits of the gas discoveries are a matter of speculation. The new fields are in theory worth tens of billions of dollars. But Israel uses more coal than gas for its electricity now, and shifting the balance toward gas will involve tough political fights with industry lobbies and trade unions.

The tensions with Lebanon — Israel's neighbor to the north with which it remains technically at war — stem from Lebanon's hope that some of the gas falls in its waters as well the patina of mistrust that hovers over the relationship.

Worried by Israel's plans, the Lebanese Parliament this week passed a law to auction undersea energy exploration rights in 2012 and to draw its own maritime borders.

"Lebanon fears that Israel, based on its history of occupying our lands and stealing our water, will drill in Lebanon's waters and steal its natural resources," Ali Hamdan, an aide to the Parliament speaker, Nabih Berri, said in a telephone interview. "Lebanon strongly warns Israel from drilling its natural gas. It will not tolerate violations of its sovereignty."

Israeli authorities say the fields lie within their own economic territory as defined by international maritime law. Infrastructure Minister Uzi Landau said in June that if Lebanon tried to interfere with Israeli drilling, his country would not hesitate to use force.

An American official involved in the issue said the Israel-Lebanon land border had not been fully drawn and until it was, the maritime border would remain in potential dispute. A mile one way or the other on the land border could make a big difference in drilling rights.

But the tension with Lebanon is not limited to the border contours. There is also a deep concern here that the Lebanese militia group Hezbollah, which opposes Israel's existence and gets money and weapons from Iran, could shoot missiles at a processing plant, causing enormous damage. Israel and Hezbollah fought a monthlong war in 2006, and Hezbollah is thought to have tens of thousands of new missiles.

Israel may therefore install antimissile systems like Iron Dome, still in development, on sea platforms and around any plants. That is one of the reasons that system's development has been pursued so vigorously.

Residents of the northern coast of Israel, after months of protests over environmental and security risks, have delayed the building of a plant. For now, gas taken from the new fields will be piped down to the southern city of Ashdod.

For the past few years, Israel has bought gas piped from Egypt as well as Israeli gas from the seabed off Ashdod. The latter field is being mined in a joint venture by Texas-based Noble Energy and Delek Energy of Israel. That source is expected to run dry in 2012, which is when one of the large northern fields, Tamar, is expected to come on line. The field that was detected later, dubbed Leviathan, which still needs to be drill tested, is in the same area and, if confirmed, would begin to yield gas around 2015.

If Israel could replace most of its coal-based electricity with gas in the coming years, that would lead to cleaner air and the potential for development of things like gas-powered public transportation and electric cars.

One of the most emotional fights related to the gas find concerns royalties and taxes the government ought to be taking. Israel's energy royalty laws date from 1952 and some economists here say they bring in a lower percentage of revenue than similar laws do in most other countries, including the United States and Canada. Others dispute this. A government appointed committee is considering recommending a tax increase on the drilling and distribution, a move the energy companies say would amount to an illegal, retroactive step.

Opponents of a tax increase have mounted a campaign saying it would drive the price of gas so high that the electrical company would buy Egyptian over Israeli gas and companies like Noble would suffer and leave.

The campaign is led by a group called The Land of Israel Forum, which has declined to identify the source of its money.

Professor Shaffer of the University of Haifa said that the gas find, if handled right, could make a real difference for Israel's economy. But the idea that it would alter the country's international position or diplomatic standing may be overblown.

"Qatar is the largest exporter of liquefied natural gas in the world and it has not turned into a major power," Professor Shaffer noted. "Having oil and gas doesn't solve your problems."

Nada Bakri contributed reporting from Beirut, Lebanon.