

**Summary:** Although in strict legal terms its status is ambiguous, a 25-year exploration license for the marine area off the Gaza Strip was awarded by the Palestinian Authority in 1999. The Gaza Marine field was discovered the following year though its natural gas has yet to be exploited. Politics as well as failure to agree on commercial terms have been the principal reasons for the delay. Exploitation of the field would provide the Palestinian Authority with an important revenue stream. Using Gaza Marine gas may also reduce the need of Israel to consume its own natural gas to generate electricity for the Palestinians. Ultimately the decision will be political, but, in economic terms, the case for the exploitation of Gaza Marine is strong.

## Natural Gas in the Palestinian Authority: The Potential of the Gaza Marine Offshore Field

by *Simon Henderson*

### Introduction

The United States Geological Survey (USGS) has estimated the geological area known as the Levant Basin in the Eastern Mediterranean to contain 122 trillion cubic feet (tcf) of natural gas.<sup>1</sup> The USGS also estimated undiscovered oil resources at 1.7 billion barrels and undiscovered natural gas liquids at 3.1 billion barrels. Apart from a very small producing field in Israel, oil has yet to be discovered. Most of the natural gas found thus far, around 40 tcf<sup>2</sup>, has been in Israel's Exclusive Economic Zone (EEZ), though one of the earliest discoveries, in 2000, was offshore the Gaza Strip. The exploitation of this discovery, the Gaza Marine field (1 tcf), could provide more reliable electricity to the Gaza Strip and boost the revenues of the Palestinian Authority (PA) in the West Bank.

### Gaza Marine

A 25-year exploration license for the marine area off the Gaza Strip was awarded by the Palestinian Authority in 1999. The license is held by the BG Group (formerly British Gas) for 90 percent and the Athens-based Consolidated Contractors Company

(CCC) for 10 percent. Under the terms of the license agreement, CCC and the Ramallah-based Palestine Investment Fund have options to increase their ownership to a combined 40 percent of the license at the development stage.<sup>3</sup>

BG Group is the operator of the license and discovered the Gaza Marine field about 36 kilometers offshore in 2000, in water about 600 meters (2,000 feet) deep. A second successful well was drilled the same year to confirm the size of the field at around 1 tcf. (In international offshore natural gas terms, a field with a volume of 1 tcf, especially if relatively close to the shore, is usually considered commercially viable.) In September 2000 (on the eve of the Second Intifada), Palestinian leader Yasser Arafat stood on a fishing boat circling the offshore exploration platform as a huge flame of the gas shot into the air. He declared it was "a gift from God to us, to our people, to our children. This will provide a solid foundation for our economy, for establishing an independent state with holy Jerusalem as its capital."<sup>4</sup>

1 <http://pubs.usgs.gov/fs/2010/3014/pdf/FS10-3014.pdf>

2 <http://www.nobleenergyinc.com/Operations/International/Eastern-Mediterranean-128.html>, page 137 of 2013 Analyst Conference Presentation.

3 BG Group, Data Book 2013, page 30.

4 <http://www.apnewsarchive.com/2000/Arafat-Natural-Gas-Good-For-Economy/id-428946bb0f1e30805e3cb3bdeb51e031>

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Initial proposals for exploiting the gas included selling it to Egypt where it could be converted into liquefied natural gas (LNG) for export, although the price of the gas was not agreed. The Israel Electric Corporation (IEC) also expressed interest in buying the gas but, again, price was an issue.

In 2001, a technical review recommended the development of the field and a pipeline to an onshore processing terminal. In 2002, the Palestine Authority approved an outline development plan, delivering the gas to Israel.

Failure to agree on commercial terms has been a principal reason for delay though official Palestinian statements put the blame on Israel.<sup>5</sup> Initially, the IEC refused to buy the gas, saying it was more expensive than Egyptian gas. Then it became clear that then Israeli Prime Minister Ariel Sharon had vetoed the scheme. Under the reported urging of then British Prime Minister Tony Blair, he changed his mind, but then reversed course again in 2003, because of fears that funds flowing to the PA would be used to support terrorism.

In 2005 and 2006, BG Group favored the option of sending the gas from Gaza Marine to the Idku LNG plant, partly owned by BG Group, on Egypt's Nile Delta. There were also long negotiations with Israel in 2006, then under the leadership of Prime Minister Ehud Olmert, which finally broke down in December 2007. There was no agreement on commercial terms and there was also a legal hitch — the government of Israel as such could not be the purchaser of the gas.

These various negotiations were acceptable to the Palestinian Authority, which took the view the Gaza Marine gas did not have to be used in the West Bank and Gaza Strip. A so-called “molecule swap” or “electron swap” was acceptable. The main anxiety of Palestinian officials was that the gas should not be sold “cheaply” — an often difficult concept, considering there is no international price for natural gas, though there are benchmarks.

There were also the complications of political events, including the kidnapping of the Israeli soldier, Gilad Shalit, by Gaza-based militants in 2006, and the Hamas takeover of the Gaza Strip in 2007. These contributed to circumstances whereby, in 2007, BG Group withdrew from negotiations with the government of Israel for the sale of

gas from the Gaza Marine field. In 2008, BG Group closed its office in Israel.

Even so, BG Group has maintained contact with the Palestinian Authority and the government of Israel in order to examine options for the development of Gaza Marine. There is little doubt that the discovery off Israel of the Tamar field (10 tcf) in 2009 and the Leviathan field (18 tcf) in 2010 changed perceptions in Jerusalem, making Israel more confident of the strength of its negotiating hand. In late 2011 and early 2012, there was renewed Israeli interest in devising a way to exploit the natural gas of Gaza Marine.

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The level of international diplomatic interest in the development of the field increased in 2013 with both the East Jerusalem-based Office of the Quartet Representative, led by former British Prime Minister Tony Blair, and U.S. Secretary of State John Kerry focusing attention on the positive aspects of Palestinian economic development. In October 2013, an unnamed Israeli official was quoted as saying that Prime Minister Binyamin Netanyahu's government was “very supportive” of the project.<sup>6</sup>

### Energy Supply in the West Bank and Gaza

The Palestinian territories of the West Bank and Gaza Strip produce neither oil nor natural gas. U.S. government figures, as reported in the *CIA World Factbook*, estimate electricity consumption in 2010 in the West Bank as being

<sup>5</sup> [http://www.pif.ps/resources/file/annual\\_report/EnglishAnnualReport.pdf](http://www.pif.ps/resources/file/annual_report/EnglishAnnualReport.pdf), page 32: “Israeli policies have prevented the monetization of the gas reserves thus far.”

<sup>6</sup> <http://www.ft.com/intl/cms/s/0/13474ef2-3027-11e3-80a4-00144feab7de.html#axzz2sUDMJVgx>

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4.573 billion kilowatt-hours. The equivalent figure for the Gaza Strip, but for 2009, is given as 202,000 kilowatt-hours. The 2010 estimated figure for Israel a comparatively huge 48.73 billion kilowatt hours.<sup>7</sup>

In terms of electricity installed generating capacity, the *CIA World Factbook* gives a figure for the West Bank of 140,000 kilowatts, but notes this figure includes the Gaza Strip. In fact, the 140,000 kilowatt figure is the installed capacity for the single power plant in the Gaza Strip. The West Bank itself has no power plant. According to the Israel Electric Corporation, Israel's installed generating capacity is 13,248 megawatts (MW).<sup>8</sup> This is nearly 100 times current indigenous Palestinian generating capacity.

According to Palestinian officials, current demand for electricity in the West Bank and Gaza Strip is 1,200 MW. Demand is expected to grow to 2,000 MW by 2020.<sup>9</sup>

The U.S. Energy Information Administration says in its May 2013 Country Analysis Note for the Palestinian Territories that: "In 2010, the Palestinian Territories generated only 445 million kilowatt hours (KWh) of electricity, enough to meet just 10 percent of demand."<sup>10</sup> Electricity imports, mainly from Israel, accounted for the remaining 90 percent of demand. This imbalance will only have widened since then.

The result is that the Palestinian areas of the West Bank are almost wholly dependent on the Israel Electric Corporation (IEC) for the supply of electricity. The Gaza Strip's dependence is lessened by the electricity generated from the Gaza power station. Two minor exceptions have been that the West Bank city of Jericho is connected to the Jordanian grid as well as the Israeli grid, and the Gaza Strip city of Rafah has been linked to the Egyptian grid. (Supplies of electricity from Jordan to Jericho have been disrupted by interruptions in the flow of Egyptian natural gas to Jordan, caused by pipeline sabotage in Egypt's Sinai region.)

The administration of the electricity sector in the West Bank and Gaza Strip is the formal responsibility of the Palestinian Energy Authority, established by presidential decree in November 1994.<sup>11</sup> Its objectives include

<sup>7</sup> See energy sections for individual countries. Gaza Strip and West Bank are listed as separate countries. <https://www.cia.gov/library/publications/the-world-factbook/>

<sup>8</sup> <http://www.iec.co.il/EN/IR/Pages/default.aspx>

<sup>9</sup> Interview in Ramallah, January 2014.

<sup>10</sup> <http://www.eia.gov/countries/country-data.cfm?fips=pt>

<sup>11</sup> <http://pea-pal.tripod.com/about.htm>

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"providing reliable electricity at affordable prices," "laying the legal, institutional, economic, financial, and technical basis for efficient system development," and "reforming the institutional framework."

Three Palestinian electricity distribution companies operate in the West Bank:<sup>12</sup>

- The Northern Electricity Distribution Company (NEDCO);
- The Jerusalem District Electric Company (JDECO), serving East Jerusalem, Jericho, Ramallah, and Bethlehem; and
- The Southern Electric Company (SELCO).

The electricity distribution system in the West Bank requires substantial investment to cope with expanding demand. The distribution system in the Gaza Strip is even more in need of investment. In 2007, the World Bank estimated losses during distribution to be around 25 percent. An equivalent figure for Jordan was half this, and for Israel it was around 3 percent.<sup>13</sup>

The Gaza power plant started operations in 2002. Although it has a capacity of 140 MW, it has been operating at around only 70 MW. In 2006, the plant was damaged by an Israeli air strike after militants linked to Hamas kidnapped Gilad Shalit. By December 2007, it had been repaired and its capacity was 80 MW. An additional 120 MW is supplied from the Israeli grid and, since 2006, about 17 MW has been supplied to Rafah by Egypt. The total supply, around 200-220 MW, is much less than estimates of demand in the Gaza Strip, which are in the order of 400 MW.

<sup>12</sup> <http://export.gov/westbank/palestinianmarketbriefs/index.asp>

<sup>13</sup> <http://unispal.un.org/UNISPAL.NSF/0/99A0D97F24B98A5F85257305006F3507>

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Apart from the lack of supply, the current electrical transmission infrastructure in the Gaza Strip needs to be updated and expanded — the current network is incapable of sustaining a supply of 140 MW, never mind 400 MW. There is no single electrical grid that covers the whole of the Strip. The Gaza power plant, which lies south of Gaza City, supplies much of the northern part of the Strip. Some of the supplies from Israel come via transmission lines previously linked to one-time Israeli settlements. Supplies from Egypt to Rafah are limited to the southern end of the Strip. The result is frequent black-outs and widespread use of emergency generators. In 2013, Palestinians in the Gaza Strip experienced as much as 12 hours of power cuts each day.<sup>14</sup>

## The Exploitation of the Gaza Marine Offshore Gas Field

Current plans for the development of the Gaza Marine field involve the construction of well-heads on the sea-bed, the laying of pipes to a collection unit, and a sub-sea pipeline from this to the shore, making landfall at the coastal Israeli city of Ashkelon. The volume of production is predicted to be around 1.6 billion cubic meters (bcm) per year (around 57 billion cubic feet) giving a lifetime of 20 years to the field, a key investment requirement. It is predicted that it will take three years from the decision to go ahead with exploitation before the first gas flows ashore.

Capital investment required would be a reported \$1 billion. Reports of possible revenues vary from \$2.4 billion<sup>15</sup> to \$7 billion.<sup>16</sup> (This higher estimate implies that the gas could be sold at around \$10 per million British thermal units (Btu), an unlikely high price considering that Egypt reportedly

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<sup>14</sup> <http://uk.reuters.com/article/2013/12/15/palestinians-gaza-fuel-idUKL6N0JU06020131215>

<sup>15</sup> <http://www.offshore-technology.com/projects/gaza-marine-gas-field/>

<sup>16</sup> <http://www.ft.com/intl/cms/s/0/13474ef2-3027-11e3-80a4-00144feab7de.html#axzz2sUDMJVgx>

pays between \$2 and \$3 per million Btu to companies producing offshore the Nile Delta.)<sup>17</sup>

In an undated brochure, entitled “Investing in Our Children’s Future,” the Palestinian Investment Fund (PIF) valued the Gaza Marine gas project at more than \$7 billion and estimated it would cost more than \$700 million to develop. Apart from generating “huge returns” for the Palestinian economy in the form of royalties and taxes paid to the Palestinian Authority, the report also said that, by replacing the diesel fuel used by the Gaza power plant with natural gas, over \$1 billion would be saved in the cost to produce electricity during the lifetime of the project.<sup>18</sup>

The 2012 annual report of the PIF noted that the value of the natural gas off Gaza depends “largely on global prices” but put a total value at “several billion dollars.” It noted that about \$100 million had been invested so far in the project with total exploration and developments projected to reach \$800 million.<sup>19</sup>

Since there are only ten years left of the original license agreement, BG Group would need an extension to the license. CCC and the PIF would likely take the opportunity to increase their shareholdings within the terms of the original agreement.

There is available land for a receiving terminal for the gas from Gaza Marine in the industrial zone to the south of the city of Ashkelon. This area is already the location of the oil terminal owned by the Eilat Ashkelon Pipeline Company and the Rotenberg 2,250 MW power station, which is coal-fired and planned to remain so for security of supply reasons, even though Israel’s other power plants are being converted to natural gas.

After treatment in the receiving terminal — Gaza Marine’s gas is 99 percent methane so is described as not requiring much processing — the gas would be available for transfer into Israel’s natural gas main network, feeding power stations and petrochemicals across the country. In the absence of a power plant in the West Bank, the Gaza Marine natural gas would be fed to an Israel power plant to generate electricity. That electricity would then be supplied to the West Bank.

<sup>17</sup> <http://www.ft.com/intl/cms/s/0/5aabd292-52c1-11e3-8586-00144feabdc0.html#axzz2sUDMJVgx>

<sup>18</sup> <http://www.pif.ps/resources/file/booklets/pif-brochure-english.pdf>

<sup>19</sup> [http://www.pif.ps/resources/file/annual\\_report/EnglishAnnualReport.pdf](http://www.pif.ps/resources/file/annual_report/EnglishAnnualReport.pdf)

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Israel's offshore gas — in the past from the Mari-B field offshore Ashkelon and now from the Tamar field, 80 kilometers off Haifa — comes ashore at the Ashdod Onshore Terminal (AOT), which lies alongside the Paz oil terminal in the industrial zone, north of the city of Ashdod. Gas from Gaza Marine is not suitable to come ashore in Ashdod because the AOT lacks the capacity, is too far from the field, and does not have the same proximity to Gaza as a facility would have in Ashkelon. Connecting the undersea pipework from Gaza Marine to the former production platform of the Israeli Mari-B field, which links directly to the AOT, is a theoretical option but the Mari-B pipework is old and the re-engineering of it, itself costing as much as an estimated \$1 billion) would have negative impacts on the economics of the project.

The natural gas from Gaza Marine could also be available for the power plant in Gaza. This plant was originally designed to use natural gas but, in the absence of a supply of gas, was modified to burn industrial diesel, also known as gasoil. This diesel fuel was supplied by Israel from 2002 to 2010. From 2010 to 2013, fuel for the plant came via the tunnels under the border between Egypt and the Gaza Strip city of Rafah. This fuel was commercial diesel rather than industrial diesel, taking advantage of the low price of commercial diesel in Egypt, where the price is heavily subsidized. In 2012, there were reported talks for the supply of Egyptian natural gas to the Gaza power plant.<sup>20</sup>

In 2013, after the fall of the Muslim Brotherhood government led by Muhammad Morsi in Cairo, the Egyptian military shut the smuggling tunnels. Since then, the industrial diesel has been supplied by Qatar and delivered via Israel.

As the principle of Israel supplying the fuel for the Gaza power station is well established, there would seem to be no particular political difficulty in Israel also facilitating the supply of natural gas for the power station. Adjusting the generators to use natural gas instead of diesel would be comparatively cheap, perhaps \$10 million.

In January 2014, Palestinian President Mahmoud Abbas was reported to have discussed the exploitation of Gaza Marine with Russia, during a four-day official trip to Moscow. The context of the discussions was purported to be the agreement signed between Russia and Syria in December 2013, which gave the state-owned Soyuzneftegaz exclusive exploration rights in an area of the Mediterra-

nean offshore Syria. To work with Russia, the Palestinian Authority would have to extricate itself from its contractual agreement with BG Group.<sup>21</sup>

## Legal Status of the Offshore Gaza License Area and Gaza Marine Field

The license area where the Gaza Marine gas field was discovered has a curious legal status. Bequeathed to the Palestinians in 1999 in a controversial gesture by then Israeli Prime Minister Ehud Barak, Israel accepts it as belonging to the Palestinian Administration, but in strict legal terms its status is ambiguous. In fact, in 2001, the Houston-based Noble Energy and its Israeli partner Delek took BG Group to court in Israel to challenge the license area it had been given by the PA. The court did not give a verdict because the government of Israel said that, pending a final peace deal, it was the equivalent of “no-man’s water.”

Neither the Palestinian Authority, headquartered in Ramallah, nor the Hamas authorities, which de facto currently administer the Gaza Strip, have complete control of the area of the Mediterranean Sea over the Gaza Marine field. The Oslo Accord between the Palestine Liberation Organization and the state of Israel specifies the responsibility for the administration of sea areas off the coast of the Gaza Strip. Under Article XI of the Annex to the May 1994 Cairo Agreement,<sup>22</sup> sometimes known as the Gaza-Jericho Agreement, the sea off the Gaza Strip is divided into three Maritime Activity Zones, labelled K, L, and M. Zone L is the main area, with Zone M bordering Egyptian waters and Zone K bordering Israeli waters. None of the zones extend beyond 20 nautical miles from the shore, equivalent to about 37 kilometers. The Gaza Marine field straddles this

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21 [http://www.upi.com/Business\\_News/Energy-Resources/2014/01/23/Abbas-seeks-1B-deal-with-Russia-on-Gaza-natural-gas-field/UPI-20211390508361/](http://www.upi.com/Business_News/Energy-Resources/2014/01/23/Abbas-seeks-1B-deal-with-Russia-on-Gaza-natural-gas-field/UPI-20211390508361/)

22 <http://unispal.un.org/UNISPAL.NSF/0/15AF20B2F7F41905852560A7004AB2D5>

20 <http://www.eia.gov/countries/country-data.cfm?fips=pt>

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distance. The exploitation of the field will require vessels beyond those mentioned in the Annex so, both in Zone L and further out to sea, the approval of the Israeli navy will be needed. Since the Hamas takeover in Gaza in 2007, the Israeli navy has expanded its effective control of the offshore areas.

If and when a final peace deal is signed between Israel and a state of Palestine, it will be for the two states to agree their maritime border. It will also be for the state of Palestine and Egypt to decide on where the maritime border lies between those two countries. Currently, the western side of the license area, known as “Offshore Gaza,” runs at a 90 degree angle from the Egyptian border with the Gaza Strip at Rafah. This is at odds with the Egyptian view of its maritime border, subject to the supervision of the Multilateral Force Observers (MFO), the peacekeeping unit which supervises the military deposition of forces between Egypt and Israel. The Egyptian military’s view of the maritime border is that it extends as a straight line from the land border in Sinai, an interpretation that, if extended to an EEZ, would almost halve the Offshore Gaza license area.

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According to the United Nations Convention on the Law of the Sea, which Egypt has ratified (though Israel has not), maritime borders between adjoining states would normally take the line at right angles to the line of the coast, ie favoring the existing shape of the Offshore Gaza license area. Additionally, a future state of Palestine could possibly go the International Court of Justice to claim a larger EEZ as the convex line of the coast acts to the disadvantage of the Gaza Strip. Such a claim could extend to the current point where the Cyprus-Egypt maritime border meets

the Cyprus-Israel maritime border.<sup>23, 24</sup> This is the same point in the ocean — Latitude 32 degrees, 53 minutes, 20 seconds and Longitude 32 degrees, 58 minutes, 20 seconds — although Israel and Egypt have yet to agree on this point between each other. (The Cyprus-Lebanon maritime border agreement and the Israel-Cyprus agreement have a similar single point of intersection but, in this case, it has led Lebanon, which is officially in a state of war with Israel, to lodge an additional claim.)

Apparently acknowledging that in the future a Palestinian EEZ may have a maritime border with Cyprus, Palestinian Prime Minister Rami Hamdallah discussed energy cooperation with visiting Cypriot Foreign Minister Ioannis Kasoulidis in Ramallah in February 2014. A Palestinian official statement, quoted by Wafa, said the joint Palestinian-Cypriot committee will work toward signing cooperation agreements between them in various sectors, but mainly in the energy sector.<sup>25</sup>

## Future Palestinian Offshore Natural Gas Prospects

The Gaza Marine field is probably the only viable natural gas field in the offshore Gaza area. There is also a relatively small natural gas deposit near the maritime limit with Israel, known as the “Border Field.” On the Israeli side, it is known as “South Noa,” distinguishing itself from the nearby larger, though still small, “Noa” field, the first field to be discovered offshore the Gaza Strip and Israel, containing an estimated 0.04 tcf.

If the EEZ of a future state of Palestine were to be larger than the current license area, the question of Palestinian natural gas resources could be reopened. There may also be the prospect of recoverable oil deposits as, within the Israeli EEZ, after examination of seismic and other data, Noble Energy intends to look for oil beneath the natural gas fields it has discovered.

In March 2014, the Palestinian Authority announced plans to explore for oil in the West Bank in an area of about 400 square kilometres along the Green Line, the ceasefire line until 1967. Deputy Prime Minister for Economic Affairs Muhammad Mustafa said initial studies indicated the area may have between 30 million and 186 million barrels of oil.

23 <http://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/EGY-CYP2003EZ.pdf>

24 [http://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/cyp\\_isr\\_eez\\_2010.pdf](http://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/cyp_isr_eez_2010.pdf)

25 <http://www.wafa.ps/english/index.php?action=detail&id=24389>

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The PA would accept bids from potential partners through June 2014. The land is mostly in Area C where Israel is responsible for security and is adjacent to the Meged oil field in Israel where some oil and natural gas has been discovered and exploration continues.<sup>26</sup>

## Palestinian Plans for Power Plants in the West Bank

In January 2014, the three Israeli companies with a share in the Leviathan field (Avner, Delek Drilling, and Ratio) announced that the Palestine Power Generation Company (PPGC) had agreed to buy \$1.2 billion worth of natural gas over a 20-year period when the giant field begins production. The PPGC is the first declared customer for natural gas from Leviathan.<sup>27</sup>

The volume of the gas was given as 4.75 bcm, which, spread over a 20-year period is very small. Estimates of the size of Leviathan exceed 530 bcm. The Leviathan gas would fuel a new \$300 million, 200MW (though some reports say 300MW)<sup>28</sup> power plant planned for construction near the city of Jenin in the north of the West Bank. The Jenin power station would take between two and two-and-a-half years<sup>29</sup> to come into operation, a time period compatible with plans for the Leviathan field coming on stream in either late 2016 or early 2017.

Palestinian officials were reported as saying that implementation will depend on guarantees by the governments of both sides, but Palestinians want these to be made publicly. The PPGC received a guarantee from Israel in early 2013, according to Samir Huleileh, the CEO of the Palestine Development and Investment Company (PADICO), which holds an 18 percent stake in PPGC. Huleileh described the commitment as providing for a “continuous flow of gas no matter what happens on the political front.” But Huleileh said he wanted the guarantee to be officially announced.

Palestinian Deputy Prime Minister for Economic Affairs Mohammad Mustafa said the PA looked favorably on the agreement but final approval would come only after examination of the text of the contract and study of Israel’s political commitments.<sup>30</sup>

26 <http://www.chem.info/news/2014/03/palestine-wants-drill-oil-west-bank>

27 <http://www.haaretz.com/business/1.567216>

28 [http://www.pif.ps/resources/file/annual\\_report/EnglishAnnualReport.pdf](http://www.pif.ps/resources/file/annual_report/EnglishAnnualReport.pdf)

29 <http://www.ppgc-ps.com/node/85>

30 <http://www.reuters.com/article/2014/01/31/israel-palestinians-gas-idUSL5N0K-W2A520140131>

The Palestine Investment Fund has a 10 percent shareholding in PPGC. It also has a 6 percent stake in the Palestine Electric Company which is the owner and operator of the Gaza power plant.

The cost of developing the Jenin power plant will be secured through equity investment and project financing.<sup>31</sup> Palestinian officials say that the capacity of 200MW is only a starting point and it could be expanded to either 300MW or 400MW.<sup>32</sup> A proposal to double the size of the planned Jenin power plant from 200MW to 400MW may make the project more feasible to finance and implement. The extra power, which would be surplus to Palestinian demand, would be sold to an Israeli company, IC Power, part of Israel Corporation.<sup>33</sup>

There is a proposal for a second power station in the West Bank, this time near the southern city of Hebron. Additionally there are proposals for small solar plants of around 0.5 to 1MW capacity for use in industrial areas. The Bethlehem Multipurpose Industrial Park is reported to be developing a 0.6MW solar farm within the park. Small wind farms have been suggested for areas such as south Hebron, where there is a prevailing wind.<sup>34</sup>

The PA is looking for Russian support for its power projects. Technopromexport, an engineering company involved in energy projects in Russia and abroad, is mentioned as a contractor to build a 200MW power plant in the West Bank, according to material prepared for the January 2014 meeting in Moscow between Presidents Vladimir Putin and Mahmoud Abbas.<sup>35</sup>

## The PA is looking for Russian support for its power projects.

Overall plans, according to Deputy Prime Minister Muhammad Mustafa, are “to have the capacity to domestically produce around 1,000MW of electricity using offshore

31 [http://www.pif.ps/resources/file/annual\\_report/EnglishAnnualReport.pdf](http://www.pif.ps/resources/file/annual_report/EnglishAnnualReport.pdf)

32 Interview in Ramallah, January 2014.

33 <http://www.ft.com/intl/cms/s/0/cd3a05e8-d280-11e2-aac2-00144feab7de.html#axzz2tW1Ya3n1>

34 <http://www.portlandtrust.org/publications/beyond-aid-palestinian-private-sector-initiative-investment-growth-and-employment>

35 <http://en.itar-tass.com/economy/715891>

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gas in five years, up from just 70 MW at present.” (He was speaking in November 2013.)<sup>36</sup>

## The Payments Issue

The supply of electricity to the West Bank and Gaza Strip is vexed by poor “collection,” the technical term meaning the proportion of consumers who pay their electricity bills. The IEC supplies the electricity, via the Palestinian electricity distribution companies, to municipalities and industrial zones but collection rates vary. The IEC should be paid by the Palestinian distribution companies but substantial debts have accrued. Instead, the IEC is reimbursed by the Israeli government, which deducts the arrears from the money it owes the Palestinian Authority for tax paid on goods imported into the PA. The PA is the loser in this arrangement as it finds it cannot be reimbursed from Palestinian consumers and is not prepared to ask for electricity supplies to be cut off from non-paying Palestinian consumers as a means of disciplining them. The PA’s cabinet has approved the formation of a single company to buy electricity wholesale from the IEC and also run the transmission network to supply it to customers. The company, the Palestine Electric Transmission Company (PETL), is intended in part to take over the function of billing Palestinian customers.<sup>37</sup>

A similar, but separate, problem relates to customers in East Jerusalem and its environs supplied by the Jerusalem District Electricity Company. Here again there is a collection problem. The company is Palestinian owned but is supplied by the Israel Electricity Corporation (IEC), which has not been paid for all the electricity provided. In February 2014, the company was reported to have presented the Palestinian Authority with two options, either to pay the nearly NIS 400 million (\$110 million) debt in full or allow the company to raise electricity tariffs to a level equivalent to that of Israel. For its part, the IEC has demanded from the Israel government either to recover the debt from tax transfers or to allow the IEC to disconnect electricity in the West Bank.<sup>38</sup>

The generosity of Qatar in supplying diesel fuel for the Gaza power plant has led to a further payments issue for

36 [http://www.portlandtrust.org/sites/default/files/peb/interview\\_with\\_dr\\_mohamad\\_mustafa.pdf](http://www.portlandtrust.org/sites/default/files/peb/interview_with_dr_mohamad_mustafa.pdf)

37 <http://www.ynetnews.com/articles/0,7340,L-4483925,00.html> and interview in Ramallah, January 2014.

38 <http://www.timesofisrael.com/pas-unpaid-electric-bills-prompt-price-hike-proposal/>

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the Palestinian Authority.<sup>39</sup> When Israel was supplying the fuel, the PA would be compensated by Israel for the tax portion of the cost of the fuel. With the Qatari fuel now being supplied at zero cost, the net effect on the PA is a loss of revenue.

## Natural Gas and the Peace Process

U.S. Secretary of State John Kerry announced in May 2013 a major economic plan to help the Palestinians.<sup>40</sup> Known as the Palestine Economic Initiative (PEI), it aims to develop the West Bank and Gaza Strip in the period 2013-2016 as a foundation for a political settlement between the Palestinians and Israelis. Tony Blair, the representative of the Quartet (the United States, the European Union, the United Nations Secretary-General, and Russia) is in charge of its implementation. Addressing a meeting of the World Economic Forum, held in a Jordanian resort by the Dead Sea, Kerry said: “Mr. Blair is shaping what I believe could be a groundbreaking plan to develop a healthy, sustainable, private-sector-led Palestinian economy that will transform the fortunes of a future Palestinian state, but also, significantly, transform the possibilities for Jordan and for Israel.”

Kerry described the plan as being “bigger, bolder, and more ambitious than anything proposed since Oslo, more than 20 years ago now.” He wanted it to be “more transformative than incremental and different from anything that we have seen before.” Speaking of the need to find \$4 billion of investment, he specified the following sectors for opportunities: tourism, construction, light manufacturing, building materials, energy, agriculture, and information and communications technology.

Kerry was optimistic about the prospects, describing the preliminary results already reported by Mr. Blair and his team as “stunning.” He described these projections as

39 <http://uk.reuters.com/article/2013/12/15/palestinians-gaza-fuel-idUKL6N0JU06020131215>

40 <http://www.state.gov/secretary/remarks/2013/05/209969.htm>

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increasing the Palestinian GDP by as much as 50 percent over three years, creating enough new jobs to cut unemployment by nearly two-thirds — “to 8 percent, down from 21 percent today” — and to increase the median annual wage along with it, by as much as 40 percent. Agriculture could either double or triple; tourism could triple. Home construction can produce up to 100,000 jobs over the next three years, and many of them would be energy efficient.

Asking himself whether this was “fantasy,” the U.S. secretary of state continued to exude optimism saying there are “already great examples of investment and entrepreneurship that are working in the West Bank.”

The main challenge to Secretary Kerry’s vision is that the Gaza Marine natural gas field is offshore the Gaza Strip, controlled by Hamas, whose authority is not recognized by the PA, which is based in Ramallah. Additionally, the United States regards Hamas as a terrorist organization and Washington is therefore legally constrained from cooperating with it. Yet exploitation of the gas field, arguably the Palestinian Authority’s single largest economic asset, forms a key part of Kerry’s plan. Indeed, Kerry appears convinced that this history should not be allowed to impede future use of the gas despite the years of political and commercial differences that have impeded exploitation so far.

There is a debate whether economic transformation serves as a lever for conflict resolution. In the case of the exploitation of Gaza Marine, the volume of natural gas and the potential economic benefits are probably insufficient to overcome deep rooted political conflicts. Also, there is no precedent from elsewhere in the world of energy trading functioning as an incentive for peace between states in conflict.<sup>41</sup>

Neither Gaza Marine nor the PEI in general appeared to have figured much, if at all, in discussions between visiting President Mahmoud Abbas and President Obama in Washington, DC, in mid-2014. In statements before their White House meeting, Obama referred to the United States helping to foster economic development, opportunity and prosperity for Palestinians. Abbas did not mention economic issues. The Palestinian leader had had a three hour meeting with Secretary Kerry the day before but a subsequent State Department briefing again did not refer to the economic initiative.

There is some confusion whether the United States is advocating Palestinian economic independence or regional economic interdependence. For example, generating electricity is a component of the proposed canal between the Red Sea and the Dead Sea, supported by Washington and the World Bank. Brine waste from a desalination plant at the Jordanian Red Sea port of Aqaba would be pumped inland to replenish the Dead Sea where the water level has been falling, threatening Jordanian and Israeli potash facilities. (There is a separate proposal for Israel to supply gas to power two Jordanian industrial plants at the Dead Sea.)<sup>42</sup> The intention is that desalinated water would be used for Jordanians, Israelis, and, indirectly the Palestinians, freeing less pure water for agricultural use. The drop to the Dead Sea, which lies 1,400 feet below sea level, would also be used to power a hydroelectric plant. This outline agreement, which was signed at the Washington DC headquarters of the World Bank in December 2013 by Israeli, Palestinian and Jordanian officials, is not part of the PEI.<sup>43</sup>

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### Conclusion

Exploitation of the field will provide the Palestinian Authority with an important revenue stream. The 2012 annual report of the Palestine Investment Fund notes “widespread benefits in several key areas” from the “successful monetization of the Gaza Gas project.” It estimates savings of over \$560 million a year in the energy bill of Palestinian Authority and \$2.5 billion direct revenues over the lifetime of the project. It also anticipates “massive investment opportunities in the energy sector” for independent power generation companies.

<sup>42</sup> <http://www.timesofisrael.com/palestinians-to-be-first-buyers-of-israeli-natural-gas/>

<sup>43</sup> [http://www.washingtonpost.com/world/middle\\_east/new-project-to-create-drinking-water-from-the-red-sea-will-also-boost-shrinking-dead-sea/2013/12/09/3b4beea2-6106-11e3-bf45-61f69f54fc5f\\_story.html](http://www.washingtonpost.com/world/middle_east/new-project-to-create-drinking-water-from-the-red-sea-will-also-boost-shrinking-dead-sea/2013/12/09/3b4beea2-6106-11e3-bf45-61f69f54fc5f_story.html)

<sup>41</sup> Brenda Shaffer, “Can New Energy Supplies Bring Peace,” GMF Policy Brief 2014. <http://www.gmfus.org/archives/can-new-energy-supplies-bring-peace/>

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In order to obtain these benefits the Palestinian government would need to set up a payment mechanism to charge consumers for consumption of the electricity. This would also improve the governance of energy resources.

Using Gaza Marine gas may also reduce the need of Israel to consume its own natural gas to generate electricity for the Palestinians. Such usage will also marginally lower Israel's dependence on fields controlled by the Noble Energy/Delek group, which currently holds the licenses for the Tamar field and all the other Israeli fields likely to come on stream in the next few years.

A worrying reality is the actual state of the Palestinian economy. In September 2013, the International Monetary Fund reported that prospects for the West Bank and Gaza Strip were "dim" and there were "worrisome trends" in the Palestinian economy, including slowing GDP growth, unemployment of nearly 21 percent, and a cash crunch in the PA.<sup>44</sup>

A decision on going ahead with the exploitation of Gaza Marine may well come down to the impact of political developments. At time of writing, it is unclear whether the current nine-month round of U.S. orchestrated peace talks will lead to a framework agreement for further discussions or conclude instead without any agreement. Possible consequences are Palestinian diplomatic initiatives in the international arena that will be opposed by Israel or a new "intifada" (further violence).

The role and behavior of the Hamas authorities in the Gaza Strip will likely be influential. Neither the PA nor Israel would want Hamas to be strengthened by the development of the gas field. Within the Gaza Strip, Hamas faces competition from the PA, which benefits from Hamas' administrative failings, and also more extremist groups such as Islamic Jihad, which is more willing to push for military confrontation with Israel.

Given the real enmities between some of the parties, a successful breakthrough on Gaza Marine will likely require

continuing diplomatic encouragement by outside parties like the European Union and the United States. Whereas the approach of some may be fixated in terms of a "zero-sum game," the supply of more reliable electricity for ordinary people in the West Bank and particularly in the Gaza Strip could help to change the atmosphere to enable more diplomatic progress in the future.

## About the Author

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## About GMF

The German Marshall Fund of the United States (GMF) strengthens transatlantic cooperation on regional, national, and global challenges and opportunities in the spirit of the Marshall Plan. GMF does this by supporting individuals and institutions working in the transatlantic sphere, by convening leaders and members of the policy and business communities, by contributing research and analysis on transatlantic topics, and by providing exchange opportunities to foster renewed commitment to the transatlantic relationship. In addition, GMF supports a number of initiatives to strengthen democracies. Founded in 1972 as a non-partisan, non-profit organization through a gift from Germany as a permanent memorial to Marshall Plan assistance, GMF maintains a strong presence on both sides of the Atlantic. In addition to its headquarters in Washington, DC, GMF has offices in Berlin, Paris, Brussels, Belgrade, Ankara, Bucharest, Warsaw, and Tunis. GMF also has smaller representations in Bratislava, Turin, and Stockholm.

<sup>44</sup> <http://www.ft.com/intl/cms/s/0/77dd1170-1b8d-11e3-94a3-00144feab7de.html#axzz2sUDMJVgx>