Energy Sector in Palestine

Introduction
The energy situation in Palestine differs from the situations in other countries due to many reasons, among them the political considerations imposed by the Israeli Occupation in addition to the limited availability of primary energy resources and financial constraints.

The geographical fragmentation of Palestine into two areas (West Bank and Gaza) and the Gaza isolation, by Israeli occupation, also presents many planning, financial and technical challenges building a reliable and efficient electricity system.

Palestine is heavily dependent on Israel for meeting its energy requirements, where more than 97% of the West Bank's electricity needs are imported from Israel while 50% of the available electricity for Gaza is supplied by the Israeli network.

Key Findings
1. Peak load:
   - West Bank: 800MW, of which 97% are supplied by the Israeli Electricity Corporation (IEC) via a medium voltage lines through more than 235 medium voltage connection points while the remaining 3% are secured from Jordan through a medium voltage line supplying part of Jericho city;
   - Gaza: 470MW and only 45% of which are available from 3 sources (120MW from IEC, 65MW from the Gaza Power Plant and 28MW from Egypt);
   - The supplying Medium Voltage Lines in West Bank still under Israeli control

2. Annual Per Capita Electricity Consumption:
   1150Kwh (15% of the annual Israeli Per capita consumption).

The Israeli Occupation's Violations of the International Law in the Field of Energy
Since 1967, a series of actions and measures against the energy sector in Palestine were adopted by the government of Israel with the aim of:
   - administering the energy sector in the West Bank and
   - placing it under military control.

Among these actions was 1970 Military Order that terminated the concession of the Jerusalem District Electricity Company (JDECo) for the generation and supply of electricity to East Jerusalem and West Bank granted by Jordan, and granting it to the Israel Electric Corporation (IEC).

That action totally attached the energy economy to Israel and transferring Palestine into a state of energy dependent.

Since then, Israel made the energy sector economically advantageous to it, and also imposed on Palestinians an illegal and unfair technical and financial terms in getting an electricity service at very expensive and unfair tariffs.

These actions obstruct the Palestinian economic development and undermine the industrial and commercial activities.

After the 1994 Oslo accord, Israel continued its punitive measures and its illegal actions against the development of the Palestinian energy sector by:
Blocking Gas Development in the Mediterranean Sea, and exploiting Palestinian gas and oil resources in the Occupied Palestinian Territories

1. In 1999, natural gas was discovered 36km offshore Gaza Marine in the EEZ and leased by the Palestinian Authority (PA) for development to British Gas Group (BG). Since then, Israel has forcibly prevented Palestinian Government and BG from accessing the Gaza Marine, and has intervened militarily and politically to prevent its development. Israel has closed off access to Palestine’s territorial waters under the pretext of protecting the adjacent Israeli gas platforms and export pipelines.

2. In 2000, large natural gas deposits were discovered in Israel’s maritime space at the Noa and Mari-B fields bordering Palestinian waters. Israeli government awarded Noble Energy and Delek Energy a license in 2004 for the exploration and development of Mari-B and Noag as wells. While the maritime closure ensures that Palestinian gas resources remain undeveloped, Israel has unilaterally exploited the Noa gas field, which is geologically contiguous to Palestine’s border gas field in a basin that spans into Palestinian territorial waters.

3. In 2003, Israel unlawfully appropriated Palestinian village land containing oil deposits at Rantis in WB and forcibly blocked Palestinian entry to the land. An Annexation Wall was built forming an enclave around the village, and in April 2004, Israel leased the Meged Field to Givot Olam Oil Exploration Ltd for 30 years and it began producing oil from Meged-5 in 2010.

4. In 2005, Israel concluded an agreement with Egyptian company East Mediterranean Gas (EMG) to route a gas pipeline across Palestine’s maritime space from Ashkelon in Israel to El-Arish in Egypt. This also happened in the absence of an agreement with the PA, required under the Oslo Accords and international law. All this happened whilst Gaza is suffering an awful and severe electricity shortage since 2006, when the Israeli Air forces bombed the Gaza Power Plant, marking the start of electricity crises that are still ongoing due to other attacks to the Plant and the electricity networks, and due also to punitive measures imposed by the Israeli occupying force. The Electricity demand in the Gaza Strip is estimated at 470MW, of which less than 45% is currently met.

   - The consequences of the electricity catastrophic shortage:
     a) rolling household blackouts of 12-16 hours per day are seen across Gaza;
     b) insufficient supply of electricity and fuel to operate water pumps and wells, that has caused a further reduction in the availability of running water in most households. The 2015 OCHA report recorded that more than 70% of households in Gaza are being supplied with piped water for 6-8 hours only once every two to four days. This has increased people’s reliance on private, uncontrolled water suppliers and lowered hygiene standards, where more than 90% of the Gaza Strip’s water is undrinkable;
     c) waste water treatment plants have also shortened treatment cycles, thus increasing the pollution level of partially treated sewage discharged into the sea (90 million litres of partially treated sewage are being discharged into the Mediterranean Sea every day - 2015 OCHA report).

Unless the situation is resolved, the Strip stands on the brink of a full-scale humanitarian catastrophe much greater than any Israeli air strikes can cause (the recent UN report on Gaza, says that Gaza strip will become uninhabitable by 2020).
The possible and viable options to address Gaza’s electricity deficit are:
1. running the GPP on natural gas (to be purchased from Israel or supplied from Gaza’s gas fields on the sea);
2. and purchasing additional 100MW from Israel.

However, these options are currently on hold due to Israeli impediments. **And most importantly,** Israel has the capacity to provide Gaza with continuous electricity immediately.

**The Rantis Oil Field in the West Bank**
In 2000, international experts conducting a survey for the Israeli government reported that Israel contained substantial oil deposits with estimates of between 2 - 4 billion barrels of undeveloped offshore oil and 500 million barrels of undeveloped onshore oil.

In 2004, after years of exploratory drilling, *Givot Olam Oil Exploration of Jerusalem* reported a commercial discovery of an estimated 980 million barrels of oil in the Meged-4 well located in Israel.

However, part of the 62,500 acre Meged oil field rests on the Green Line marking the West Bank and Israel between the Palestinian village of Rantis and the Israeli town of Rosh Haayin.

It is still unclear how far the Meged oil field extends into the West Bank. The Palestinian Authority appointed a committee of experts to explore and investigate the existence of Meged-5, and by 2013 the presence of Palestinian oil resources in the village of Rantis were openly acknowledged.

In 2014, the US Energy Information Administration updated its website to include “fields on the Israeli side of the boundaries [which] may extend across the West Bank and Gaza borders.

In April 2004, Israel leased the Meged Field to Givot Olam Oil Exploration Ltd for 30 years.

In 2010, production test drilling at Meged-5 found the oil field contained an estimated 1.525 billion barrels of oil and Givot Olam began producing oil from Meged-5 in 2011.

**Measures taken by Israel to prevent Palestinians from benefiting from these resources:**
1. in 1978, Israel confiscated land to the east of Rantis (the area was designated as a military training zone);
2. in 1980 agricultural lands between the 1948 and 1967 borders were further reclassified as military training zones;
3. meanwhile, the Ministry of Housing constructed a settlement of 2,500 housing units in the expropriated land between Rantis and Nahalin;
4. between 2004-2005 Israel confiscated 3,500 dunums of land for the construction of the Wall around the village of Rantis.
Having access to our natural Energy Resources means:
1. eliminating fully the electricity crises of Gaza through producing locally our electricity needs;
2. reducing dependency on IEC for electricity imports in WB and having our reliable, efficient and cost effective system which shall relieve the fiscal burden on the Government treasury;
3. securing the energy needed for the construction of Water Desalination Plants to remedy the potable water shortages in Palestine and particularly in Gaza;
4. enabling Palestine to develop a sustainable economic system and provide an attractive environment for private sector investment through securing current and future energy local market needs.

Based on that:
1. the Israeli impediments for Palestinian to exploit their energy resources and its systematic robbery to these resources violated Article 46 and Article 52 of the Hague Regulations and Article 53 of the Fourth Geneva Convention, while similarly violating Palestinian human rights to self-determination and permanent sovereignty over natural resources;
2. regarding the electricity crises in Gaza, and according to international law, as the occupying power, Israel has sole responsibility to remedy this issue immediately;
3. Israel’s ability to deny families in Gaza the energy they need is nothing less than collective punishment of Palestinians;
4. Israeli destruction of private and public properties is a flagrant violation of the international humanitarian law.