



GAZA HUMANITARIAN SITUATION REPORT POWER SHORTAGES IN THE GAZA STRIP 8 January 2008

KEY OBSERVATIONS

- On Saturday, 5 January 2008, the Gaza Power Generating Company (GPGC) reduced its power supply to the Gaza Strip by 23 megawatts, resulting in daily power cuts of up to eight hours to Gaza's population of 1.48 million
- Gaza's normal consumption of electricity is 230 megawatts, of which 65 are produced by the local power plant
- Most Gaza residents are suffering disruption to their lives as result of the cuts including reduced access to drinking water
- Israel has reduced the amount of industrial gasoline it allows into Gaza by 16 per cent since October 28 last year
- Since the partial destruction of the Gaza power plant by Israel in June 2006, Gaza's power supply has not met demand.



The smoking remains of the transformers of the Gaza power station following Israeli airstrikes on June 28, 2006.
Photo:UNRWA

BACKGROUND

On 28 June 2006 Israeli Air Force bombed the power plant in the Gaza Strip following the capture of an Israeli soldier by Palestinian militants. All six transformers at the power plant were destroyed, immediately cutting 43% of Gaza's total power capacity.

On November 2006, seven new transformers were installed at the power plant in Nuseirat in central Gaza. The new units did not have the same capacity of the destroyed transformers and Gaza's power supply has



not returned to the levels of June 2006.

As of November 2007, the power supply available to Gaza, originated from three sources:

65 MW	Gaza Power Generating Company (GPGC)
120 MW	Israel Electrical Company (IEC)
17 MW	Egypt
202 MW	Total

The Palestinian Energy and Natural Resource Authority estimated that demand from December to February would rise from 202 megawatts to 230. To help make up the shortfall, the PA energy authority was allowed to import an eighth transformer into Gaza on 12 December, 2007.

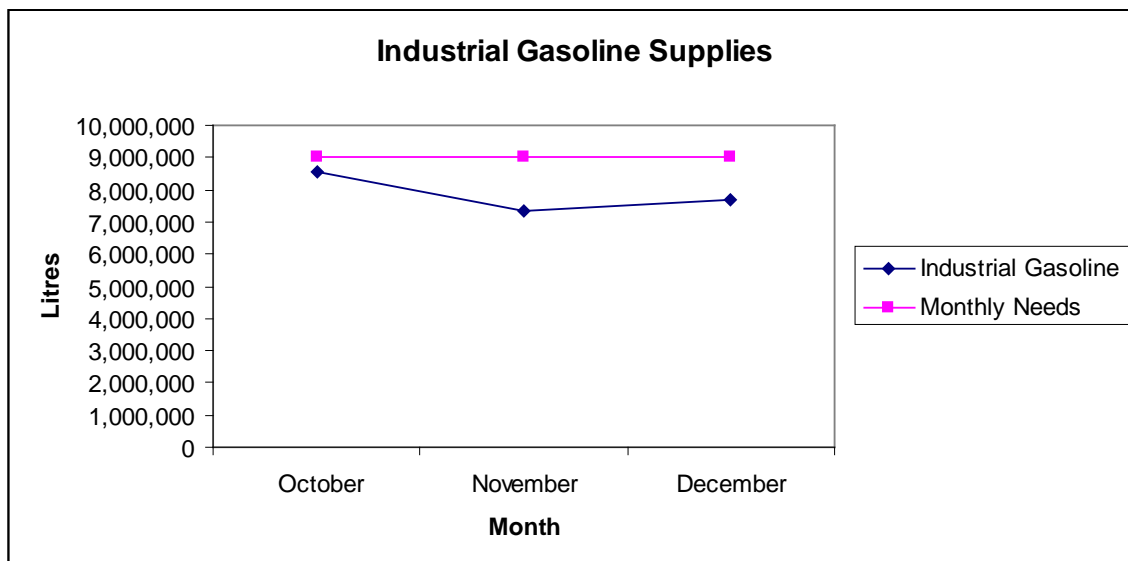
On December 26, 2007, the power plant conducted an experiment in which it was able to produce an additional 15 megawatts. The power plant would require 450,000 liters of fuel per day to reach this output.

FUEL NEEDS

The GPGC receives all its fuel from Israeli companies and the cost is met by the European Union.

On 28 October 2007, Israel began restricting fuel supplies to Gaza as part of a sanction regime designed to pressure Palestinian militant groups into stopping launching rockets from Gaza into Israel. From mid June 2007 to December 25 2007, 632 Qassam rockets and 921 mortar bombs were fired from Gaza, injuring 82 Israeli citizens. Over the same period, 217 Gazans were killed due to conflict related violence.

Fuel deliveries to the Gaza power plant have decreased from 300,000 to 249,000 liters per day, but the consumption has remained at 275-295,000 liters/day. The shortfall has been made up from the GPGC's emergency reserves of 3,000,000 liters, which were depleted on 4 January 2008. GPGC received 7,716,700 liters in December and 7,359,400 liters in November, which is an average of 249,000 liters per day. **The shortfall amounted to 16% of GPGC's monthly needs of 9,000,000 liters.**





CURRENT SITUATION

As of last week, the total output of the Gaza plant was around 65 megawatts, while the daily fuel consumption ranged from 275,000 to 295,000 liters depending on different conditions such as weather. At around 2 PM on 5 January 2008, as the emergency fuel reserves ran out, GPGC began to cut power production and reduced supply to the Gaza electrical grid. Therefore, local electricity production has been reduced by approximately 35%, and the total amount of electricity supplied to Gaza by all sources has been reduced by 12%. As of January 8, GPGC is producing only 42 megawatts, instead of the 65, which the company was able to produce last week.

If the power plant was allowed to receive 350,000 liters per day, it would be able to generate 65 megawatts. If supply was increased to 450,000 liters per day, the plant could produce 80 megawatts and there would be no power cuts in the Gaza Strip.

IMPACT

Households in the Gaza Strip are now experiencing regular power cuts. GPGC has set a daily power cut schedule by which each household in Northern Gaza will have no power for 10 hours every two days, 8 hours every two days in Gaza City and Khan Younis, eight hours every day in Central Gaza and 8 hours every week in Rafah.

The irregular supply causes additional problems. Running water in Gaza is only available in most households for around eight hours per day. If there is no power when water is available, it cannot be pumped above ground level, reducing the availability of running water to between four and six hours per day.

As the GPGC has organized a schedule of power cuts, consumers wait until electricity supply resumes before carrying out their daily activities leading to a surge in demand, which puts the electricity network under further pressure leading to more localized power cuts.

HEALTH

The World Health Organization (WHO) reports that hospitals in Gaza run by the Ministry of Health remain operational in spite of the power cuts. The hospitals currently have enough fuel to power their emergency generators. However, emergency generators are designed for emergencies not for continued use. The more they are used the more likely it is they will break down. As supplies of spare parts to Gaza have also been restricted by Israel, hospitals face the potential of major disruption to their services if regular power supply is not resumed.

WATER AND SEWAGE

The Coastal Municipalities Water Utility (CMWU) provides water and sewage services in the Gaza Strip. It relies on electricity for the pumping and treatment of water and waste water. Like the hospitals, the CMWU requires emergency generators to continue its work during power cuts.

If the CMWU cannot provide its own emergency power supply because of its own fuel shortages, it has to pump raw sewage into the sea which damages the coastline in Gaza, southern Israel and Egypt. If regular power supply is not resumed the chance of major disruption to water supply in Gaza and to the marine environment is increased