Electricity Shortages in the Gaza Strip: Situation Report

8 February 2008

KEY OBSERVATIONS

- The majority of Gazan households have power cuts of at least eight hours per day. Some have no electricity for long as 12 hours a day.
- Gaza 's power supply comes from three sources. This week it receives 17 megawatts from Egypt, 108 megawatts from Israel and 55 megawatts generated by its own power plant. This amounts to 180 megawatts, or 75 per cent of its estimated demand of 240 megawatts.
- On Thursday, 7 February, the the Israel Electricity Company reduced its supply to Gaza by around 0.5 megawatts under the instruction of the Ministry of Defense. The cut was less than the 1.5 megawatts proposed but still adds to the existing shortfall of 60 mgw.
- Power cuts place immense pressure on Gaza's crumbling electrical grid impacting water and sanitation infrastructure, disrupting healthcare delivery and adding misery to the lives of civilians, as Gazans will continue to bear the brunt of the reduction of power.

ISRAEL'S NEW POLICY ON POWER SUPPLY TO GAZA

On 28 October 2007, the Israeli Ministry of Defense declared it would start cutting electricity to Gaza in response to the continued and indiscriminant firing of rockets from Gaza into Israel.

It proposed cutting power by a total of 1.5 megawatts but it appears that it now plans to introduce a cut of 0.5 megawatts per week, to " diminish the dependency of the Gaza Strip on Israel" according to Matan Vilnai, the Deputy Defense Minister.

The Ministry argued that the authorities in Gaza could ensure that electricity flowed to homes and hospitals but not to workshops where rockets are produced.

The new policy was opposed by 10 Israeli and Palestinian human rights groups, who filed a petition to the Israeli Supreme Court claiming the policy was contrary to International Humanitarian Law (IHL) as it indiscriminately punishes Gaza's civilian population for the acts of militants.

The Ministry of Defence responded that Gaza is controlled by a terrorist organization and that economic sanctions, as part of a policy of economic warfare, was a life-saving alternative to large-scale ground operations. The Ministry further argued that Israel's only obligation to Gaza's civilian population was to avoid a humanitarian crisis, and that it was up to the authorities in Gaza to prioritize the distribution of electricity with preference for humanitarian needs. The Court supported the Ministry of Defence and accepted the argument that electricity cuts would not cause a humanitarian crisis and rejected the petition.

GAZA'S ELECTRICITY CRISIS

IIn June 2006, following the capture of an Israeli combat soldier by Palestinian militants, Israeli aircraft destroyed the six transformers of Gaza's only power plant. The plant, completed in 2002, was capable at that time of producing up to 140 megawatts. Since the bombing, eight new smaller transformers have been installed, with a maximum output 80 megawatts. The Power plant is fully dependent on fuel supplies from Israel.

Israel currently allows the supply of 2.2 million liters of fuel per week, which is supplied in installments, five or six times per week. If supply is halted for two days, the power plant will run out of fuel and will have to cease operation. The normal one-month reserve capacity of 20 million liters is already exhausted.

Following the destruction of the power plant's transformers, Israel increased its direct supply of electricity to Gaza. Power from Israel reaches Gaza via ten feeder cables, which supply 12 megawatts each to different parts of the Strip, a total of 120 megawatts. Israel deducts the cost of electricity from tax revenues that it collects on behalf of the Palestinian Authority.

In late January, one of the feeders from Israel (Nekorot feeder) was damaged. It was repaired on 6 February 2008. The next day however, the Iron feeder, which supplies parts of Gaza City broke down and has not yet been repaired by the Israel Electric Company.

Gaza also receives 17 megawatts from two low voltage feeders from Egypt, which supply areas of Rafah.

While Israel's proposed cuts are small, a reduction of 0.5 megawatts on three feeders, they exacerbate Gaza's existing shortages.

ELECTRICITY DISTRIBUTION IN GAZA

Electricity is distributed in Gaza by the Gaza Electricity Distribution Company (GEDCO). The electrical lines for Gaza were initially installed by Israel and later on extended as Gaza's population increased. The different lines are not connected to each other, i.e. there is no electrical grid that covers all of the Gaza Strip; there is a network connected to Egypt, a network connected to Gaza's power station in Nuseirat and networks connected to the Israeli feeders. The different networks cannot be connected to compensate for the loss of one or more sources of electricity.

GEDCO has no central control room to monitor and manage the flow of electricity. When it needs to re-distribute electricity to share power cuts, engineers travel to a substation to manually pull a switch. The switches are designed to be operated once a year for maintenance, but they are currently being used five times a day, resulting in damage and the electrocution of two engineers. Both are recovering in hospital.

In some cases, Gazan residents switch their electricity back on when the engineers have left the area, putting the system into overload.

According to GEDCO, 30 per cent of Gaza's supply is affected by technical problems caused by the strain placed on the system and the lack of spare parts.

IMPACT

Power cuts affect every aspect of civilian life. Without power, the Gaza's water authority, the Coastal Municipalities Water Utility (CMWU) cannot pump and distribute water nor process sewage. Power cuts also mean that hospitals have to suspend operations in order to ensure emergency services, and children, who make up 56 per cent of Gaza's population, are at the risk of health problems related to contaminated water and non-functioning sanitation and heating systems.

Currently hospitals and the CMWU rely on emergency generators to maintain normal services. Between 18 January and 22 January 2008, when Israel suspended fuel supplies, both services ran low on diesel and had to curtail their operations. Hospitals turned away patients and in some cases relatives had to bring in food to feed patients.

Unable to treat sewage, the CMWU had no other choice but to release waste water into the sea at a rate of 40 million liters per day. During the second half of January almost half of Gaza's population had no access to running water.

A limited and diminishing supply of electricity to the Gaza Strip is placing ever increasing pressure on the delivery of basic services in health, education, water and sanitation to a growing Palestinian population. The current restrictions on the supply of fuel and the continuing ban on imports of spare parts and machinery exacerbates an already precarious network for the provision of these basic services and will lead, inevitably, to further decline in the standard of living for the residents of the Gaza Strip.