

HUMANITARIAN IMPACT OF THE GAZA ELECTRICITY CRISIS

MAY 2017

On 16 April 2017, the Gaza Power Plant (GPP) shut down due to a lack of fuel. Gaza thus lost 60 megawatts of electricity or roughly thirty per cent of the energy normally available in the Strip. Prior to this cut, electricity available to Gaza was already less than half of the estimated requirement (210 MW provided as opposed to 450 MW demand). The current crisis has serious implications on the health, water and sanitation sectors and will have a cumulative impact on the overall humanitarian situation. While the Palestinian Authority has informed the Government of Israel that it will no longer honour any invoices for the additional 120 MW of electricity provided by the Israeli Electricity Company, the impact of this latter scenario is not covered by this note.



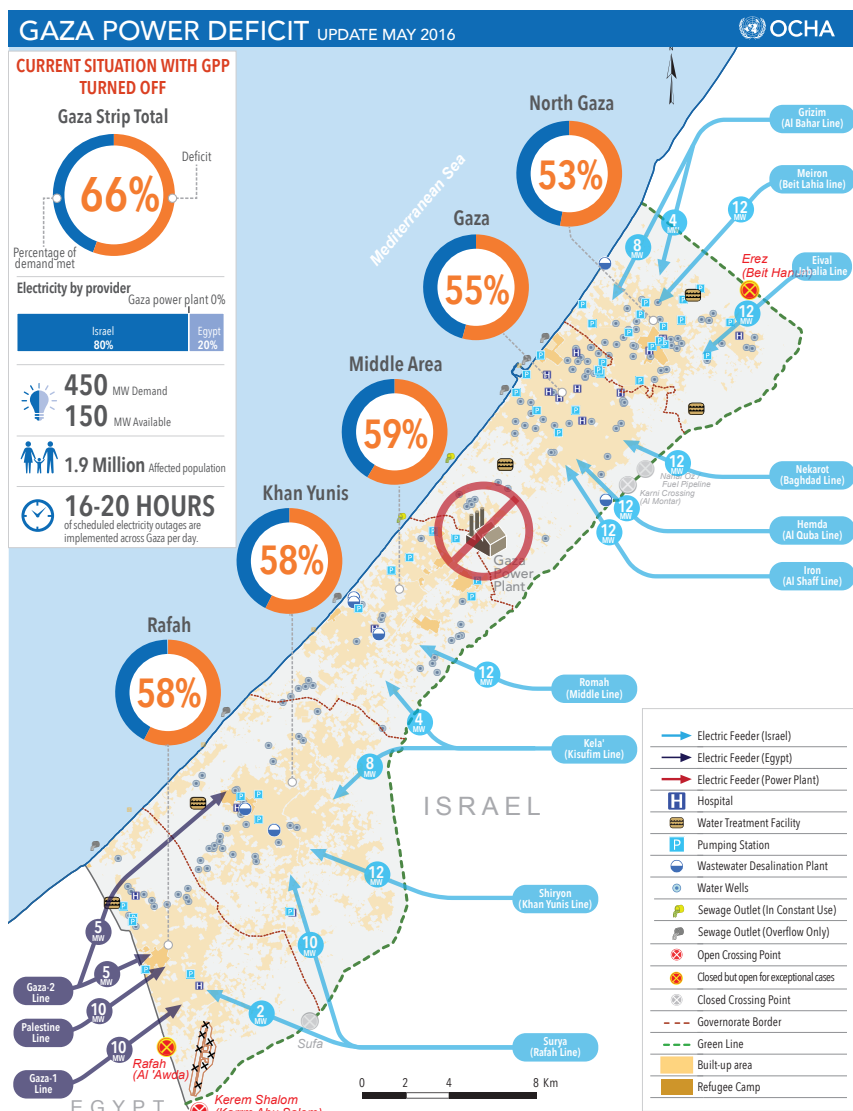
CURRENT HUMANITARIAN IMPACT: ONGOING CONSEQUENCES RESULTING FROM GPP SHUTDOWN AND RELIANCE ON EMERGENCY FUEL PROVISION

Health services:

- Hospitals working at minimal capacity.
- Only the most critical services continuing, such as intensive care units and neonatal intensive care units; other services put on hold.
- Elective surgeries being postponed, increasing risk of complications.
- Patients being discharged prematurely after surgery.
- Sterilization and cleaning services reduced, giving rise to infection rates.
- Number of patients referred outside Gaza increasing.
- Condition of health equipment rapidly degrading through eg. the constant fluctuation in the current of electricity.
- Over time, if fuel supplies dwindle, some hospitals expected to close in order to preserve fuel for the central hospitals serving largest catchment population. This would immediately affect pregnant women, elderly and those with chronic illness.

Water and sanitation services, including solid waste management:

- Wastewater plants operating on shortened treatment cycles, decreasing the quality of sewage routinely discharged into the sea and increasing pollution levels. More than 100,000 cubic meters of raw sewage or poorly treated effluent is now being discharged to the sea daily.



- More than 55 wastewater pumping stations located at heavily populated areas now at increased risk of flooding, overflow and contamination, due to unpredictable electricity supply and shortage of services.
- The production rate of 48 (small scale) desalination plants now reduced to 15 per cent of maximum capacity of 20,000 cubic meters per day.
- Water supply reduced to once every four days for 35 per cent of the population.
- Water quantity supplied now decreased from 90 liter/capita/day to 40-50 liters/capita/day.
- Increase reliance on private, uncontrolled water suppliers and lowered hygiene standards, which may result in deteriorations in health.
- Additional health risks could emerge as summer begins.

ADDITIONAL HUMANITARIAN CONSEQUENCES IF EMERGENCY FUEL SUPPLIES ARE EXHAUSTED AND GPP REMAINS SHUT-DOWN

- The services of 40 surgical operation theatres, 11 obstetric operation theatres, 5 haemodialysis centers and hospital emergency departments assisting almost 4,000 patients daily will be interrupted or stopped.
- The situation will be immediately life-threatening for 113 newborns in neonatal intensive care units, 100 patients in intensive care and 658 patients requiring hemodialysis 2-3 times weekly, including 23 children.
- Refrigeration for blood and vaccine storage will be at risk.
- NGO hospitals will limit their services or charge higher fees for services.
- Water supply reduced to once every four days for 70 per cent of the population
- Operations of the 48 desalination plants will reduce to below 15 per cent or cease functioning
- Environmental pollution and public health risks will increase, threatening locations and people located in close proximity to the sea and to wastewater pumping stations.

UNITED NATIONS-ASSISTED EMERGENCY FUEL OPERATION

To maintain a minimum level of continuity of critical services, providers are now relying heavily on back-up generators. With support from donors, UNRWA, OCHA, UNICEF, and WHO are coordinating the entry and distribution of emergency fuel operations to 186 priority health, water and sanitation facilities to keep these back-up generators running. Through the program:

- 32 critical hospital and health services are being sustained, particularly where even a brief interruption in electricity would result in an immediate loss of life. This enables up to 1.3 million people to continue accessing critical health services;
- 124 facilities are providing clean drinking water; raw sewage is prevented from overflowing into the streets; and some treatment of waste water continues. At least 910,000 people benefit from the continuation of these water treatment services and 1.4 million people benefit from solid waste management.

Funding and Fuel Requirements - When the Gaza Power Plant is fully out of operation, as it is now, US\$10 million is required per year to support priority facilities. This funding provides an average of 1.4 million liters per month, divided across: Health services (675,000 liters per month); Water and wastewater services (400,000 liters per month); and solid waste management (200,000 liters per month).