



# THE HUMANITARIAN IMPACT OF GAZA'S ELECTRICITY AND FUEL CRISIS

MARCH 2012

## KEY FACTS

- Electricity demand in Gaza can reach up to 360 megawatts (MW). At its current operating capacity, the Gaza Power Plant (GPP) can produce up to 80 MW; supplemented by 120 MW purchased from Israel and 22 MW from Egypt, the total amount of electricity available can meet approximately two-thirds of the demand.
  - Due to a severe fuel shortage, since February 2012, the GPP has either been operating at one-third of its operational capacity or has had to shut down, triggering scheduled blackouts of 6-18 hours a day, in addition to random unscheduled cuts.
- Due to the insufficient and irregular power supply,**
- The amount of medical equipment out of order in Gaza hospitals has tripled since the beginning of 2012 (WHO).
  - Since February 2012, the average waiting time for elective orthopedic surgery at Shifa Hospital has increased from three to six months (WHO).
  - More than 40% of households in Gaza are supplied with running water for 6-8 hours only once every four days (WASH cluster).
  - Up to 80 million liters of partially treated sewage are discharged into the Mediterranean Sea every day.
  - The average production level of water desalination units has dropped by approximately 60% since the beginning of the year (WASH cluster).
  - As a result of the reduced capacity to filter or oxygenate water, aquaculture farms have lost over 16 tonnes of fish since the beginning of March 2012 (FAO).

- The chronic electricity deficit affecting Gaza over the past few years has disrupted the delivery of basic services and undermined already vulnerable livelihoods and living conditions.** Since February 2012, the situation has further deteriorated following a sharp decline in the amount of fuel unofficially brought into Gaza from Egypt, via the tunnels, and used to operate the GPP.
- The generating capacity and reliability of the GPP has been significantly impaired over the past six years by additional factors.** These include the destruction of six transformers by an Israeli airstrike in 2006; the restrictions on the import of spare parts, equipment, and fuel in the context of Israel's blockade; and the dispute between the Palestinian Authority (PA) and the de-facto-authorities in Gaza over the funding of GPP operations. The resulting decline has been exacerbated by the poor state of the distribution network, which results in significant electricity losses.
- To cope with the long blackouts, **service providers and private households have resorted to back-up generators, which are unreliable due to their dependence on scarce fuel and spare parts.** Private mobile generators can be particularly unsafe, environmentally polluting, and are not affordable by the poorest.
- Medical services, including life-saving interventions, are at risk of collapsing due to an imminent exhaustion of the fuel reserves used to operate back-up generators and to run ambulances.** Constant fluctuations in power supply have resulted in the malfunctioning of sensitive medical equipment, disrupting medical services. To prioritize emergency surgery, hospitals have had to postpone some elective surgery, which, even if not life-threatening, can have a range of negative ramifications on the affected patients.
- The insufficient supply of electricity and fuel to operate water pumps and wells has caused a further reduction in the availability of running water in most households.** This has increased people's reliance on private uncontrolled water suppliers and lowered hygiene standards. Wastewater plants have also shortened treatment cycles, thus increasing the pollution level of partially treated sewage discharged into the sea. There is also the risk of back-flow of sewage onto streets.
- The fuel and electricity shortages have negatively affected livelihoods, in particular agricultural activities.** Chicken, cattle and fish farms, have reported repeated disruptions in the functioning of equipment, along with significant rises in production costs. The interruption in the irrigation of crops delays flowers and fruit ripening, resulting in a decreased yield. Many fishing boats are also in port due to lack of fuel.
- A number of long-term options to address Gaza's electricity deficit are currently under consideration. In the short term, however, **to mitigate the humanitarian impact of the current crisis, the relevant authorities need to ensure that GPP is supplied with enough fuel to operate at full capacity.**



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# POWER DEFICIT - GAZA (GIVEN ZERO SUPPLY FROM GAZA POWER PLANT) March 2012



Source: adapted from GEDCo