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Office for the Coordination of Humanitarian Affairs
occupied Palestinian territory

THE HUMANITARIAN IMPACT OF GAZA'S ELECTRICITY AND FUEL CRISIS

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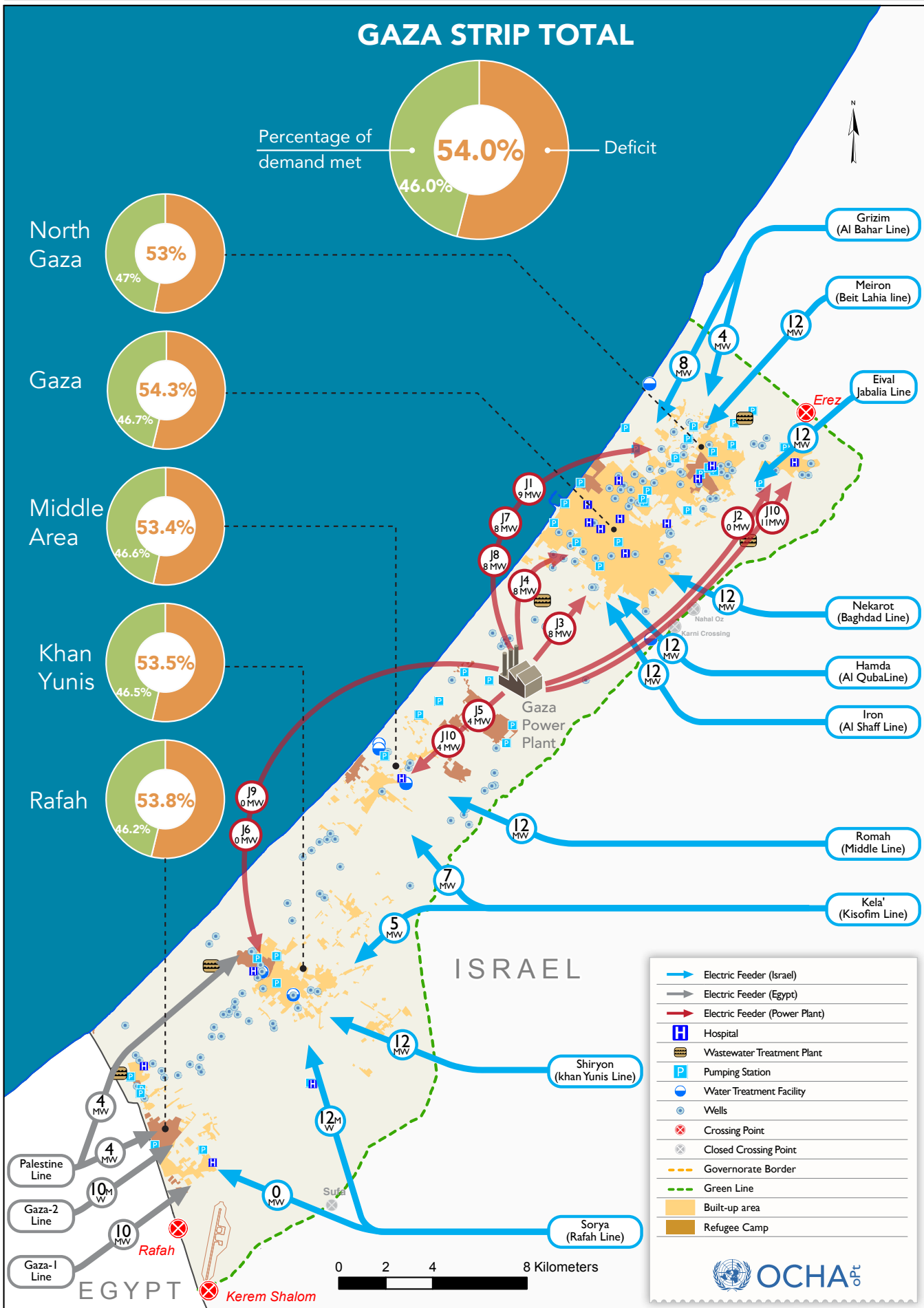
KEY FACTS

- The Gaza Strip is supplied with electricity from three sources: purchases from Israel (120 megawatts, MW) and from Egypt (28 MW), and production by the Gaza Power Plant (GPP) (currently 60 MW). This supply meets approximately 46% of the estimated demand.
- Due to severe shortages of fuel, since July 2013, the GPP has been operating at approximately half of its capacity of 120 MW, triggering an average of rolling power outages of up to 12 hours per day. On several occasions, it has been forced to shut down completely, resulting in scheduled blackouts of up to 16 hours a day.
Due to the insufficient and irregular power supply:
- More than 30% of households in Gaza are supplied with running water for 6-8 hours only once every four days (WASH cluster).
- Up to 90 million liters of partially treated sewage are discharged into the Mediterranean Sea every day (WASH cluster).
- By January 2014, over 300 medical machines at hospitals were out of order, including the only MRI machine at Gaza European Hospital, as of (WHO).
- The average waiting time for some types of elective surgery at Gaza's largest hospital (Shifa) is over a year (WHO).
- Water desalination units have reduced their operation levels by approximately 40% since the beginning of 2014 (WASH cluster).
- At least 140,000 dunums of land planted with fruits and vegetables are at risk of drought due to inability to use 85 percent of the agricultural wells operated with electricity (PARC).

- 1. 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.** The situation has further deteriorated since June 2013, following the halt in the smuggling of Egyptian-subsidized fuel used to operate the GPP, via the tunnels.
- 2. The generating capacity and reliability of the GPP has been significantly impaired over the past eight 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.
- 3. 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.
- 4. Medical services, including life-saving interventions, are at risk of collapse due to the exhaustion of the fuel reserves used to operate back-up generators.** Constant fluctuations in power supply have resulted in the malfunctioning of sensitive medical equipment, including ultrasound, X-ray, laboratory machines, cardiac monitors, sterilizing machines and infants' incubators. 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.
- 5. 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 a constant risk of back-flow of sewage onto streets.
- 6. The fuel shortages and related rise in fuel prices have further undermined agricultural livelihoods.** Fishermen and farmers depend on fuel to run vehicles and fishing boats as well as other essential equipment for land irrigation and poultry farms. Compounded with insufficient rainfall, the fuel shortages are likely to push food prices, especially fresh vegetables, further up, thus increasing food insecurity.
- 7. A number of long and medium-term options to address Gaza's electricity deficit are currently under consideration, but are on hold due to political reasons.** Those include operating the GPP with gas from the gas fields under the Gaza sea, or the purchase of an additional 100MW/day of electricity from Israel. 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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