

UNHCR, in partnership with the Government of Jordan, funded by KfW Development Bank have established the largest solar power plant in a refugee camp covering the electricity needs of refugees in Zaatari Camp. This renewable energy connects 100% of shelters in the camp via the newly renovated medium and low voltage power network support by the Government of Czech Republic. JICA trained refugees who now have been internationally accredited as electricians and who have been involved not only in the construction of this solar plant and network, but also in the ongoing maintenance of the whole electrical system.

Electricity Access



100% of shelters connected to the grid

Average of 78 kWh per month per household or 2.6 kWh per day

12.5

hours of electricity provided daily to shelters

NGO 49

organizations and operational facilities have access to electricity through the national grid

Environmental Impact



23,000 MWh's of clean energy produced every year

15,600 tons per year reduction of CO2



equivalent to around 30,000 barrels of oil

Cost Savings



80% annual reduction in electricity bills



anticipated energy savings of \$5 million in 2018



Constructed at approximately \$1.16/W
Anticipated return on investment within 3 years

Improved Lighting



2,100 street lights installed across the camp (approximately)



456 LED street lights installed around the camp

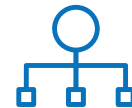


27,000 Energy Efficient Lightbulbs (LED) distributed to households

Livelihood Opportunities



38% of labour provided by refugees in the solar plant construction



47 trained refugees connected the network to the shelters



101 internationally recognized trained refugees undertake maintenance on the network



99 to be trained by the end of September 2018 additional refugees

Zaatari Electrical Network Physical Facts

- The Solar Plant uses **40,100** solar PV panels with a lifespan of 25 years
- Total Solar Plant area is over 20 hectares, equivalent of **33** football fields
- **14** km's of DC cable and **1.4** km's of AC cable are used across the Solar Plant
- **16,000** RCBOs (residual current & over-heat breakers) for safety installed in Zaatari Refugee Camp caravans - *completed in March 2020*
- **440** km's of 3x10mm cables were stretched for each caravan for proper electrical network installation and electricity provision - *completed in August 2020*
- 127 km of 70mm cables to be stretched in the camp's electrical network and electrical panels to ensure the camp will be earthed and grounded, to prevent any electrical hazards related to shocks and damage of appliances.