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.

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**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
- 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 equivalent to around 30,000 barrels of oil
- 15,600 tons per year reduction of CO2

**Cost Savings**
- 80% annual reduction in electricity bills
- 15% 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.