

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

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

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

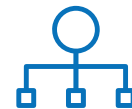
Energy Efficient Lightbulbs (LED) distributed to households

#### 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