

Paths to Sustainable Energy and Climate Action



Refugees who are trained as electricians work on network or the solar plant management and receive stipend for their contribution. © UNHCR/Mohammad Alyounes

Jordan hosts some 730,000 refugees who live in communities and refugee camps. Being a water-scarce country, Jordan faces rising temperatures, less rainfall, and changing weather patterns due to climate change - posing additional challenges to refugees living in vulnerable conditions. The Government of Jordan is taking actions to mitigate against and adapt to climate change. At the UN Climate Change Conference 2022 (COP 27), Jordan introduced the “Climate Refugee Nexus Initiative”, which calls for support to refugee-hosting countries affected by climate change. UNHCR, the UN Refugee Agency, agrees that countries affected

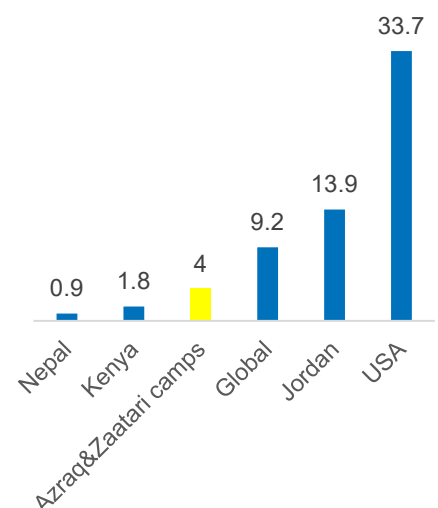
by refugee and climate situations should receive special consideration and support for an adequate response. UNHCR strives to support these government efforts and is determined to **reduce its carbon and environmental footprint while providing sustainable energy to the refugee population in the camps and promoting solutions for those in the urban context.**

First-ever Solar Powered Refugee Camp. Access to safe and sustainable energy is a basic human need. As a refugee response coordinator, UNHCR provides energy to about 130,000 Syrian refugees in Azraq and Zaatari camps. With support from the Saudi Fund for Development and the Ikea Foundation, the Azraq camp became the first-ever refugee camp to be powered through a solar power plant in June 2017, followed by the Zaatari camp in November 2017 with support from the Government of Germany through their development bank KfW. Currently, UNHCR oversees the technical maintenance of the two solar power plants that serve the entire population of refugees in both camps. The power plants provide between **9 and 11 hours of electricity to around 40,000 shelters and shops** in the camps, which means that refugees can work, cook, study and socialize even after. The plants also help keep the camps safe through 3,000 energy-efficient streetlights.

Some of the key figures and highlights of the solar plants and energy needs in the camps are as below:

- Powering the camps through solar energy helped **reduce carbon emissions** of 21,900 tons, equivalent to emissions from 4,345 cars.
- The plants also generated **job opportunities** for refugees that were involved in the initial construction phase. Many refugees, trained as electricians, still help maintain the network and plants.
- With **refugees’ increased energy needs** and maintenance and operational challenges of the plants, the solar power plant supplies about 65 per cent of overall electricity.
- UNHCR used to cover the cost of the rest of the power that comes through the national grid – some Jordanian Dinar (JOD) 350,000 (\$500,000) in an average month.

Average daily household consumption around the world



Greening the Blue - UNHCR in Jordan

Aside from providing clean energy to the camp population, UNHCR aims to **reduce its environmental footprint** as part of the global, UN-wide initiative, Greening the Blue. UNHCR aims to increase the portion of renewable energy for its offices in Jordan to 40 per cent by 2026 and double this target by 2030. The operation has completed major steps **adopting LED-efficient lighting and boosting the efficiency of air-conditioning systems** which has reduced energy consumption in the offices by 35 per cent. UNHCR in Jordan already uses nine **electric vehicles** with chargers on the premises, a first in the region. Read more about the Greening the Blue initiative [here](#).

In mid-2023, UNHCR, the Government of Jordan, electricity companies and other partners agreed on a **new Green Deal for Jordan** which **delivers solar power to the camps from a solar plant located in South Amman which was financed by the German development bank KfW**. Thanks to this agreement, the two camps are expected to run nearly exclusively on solar energy, reducing carbon emissions by nearly 15,000 metric tons annually. It will also reduce the bills paid by UNHCR so far to cover electricity consumption not covered by its solar plants. In exchange, UNHCR helps cover the operational costs of the South Amman plant.

UNHCR has also been promoting the efficient use of energy. UNHCR plans to install **individual smart meters** for shelters in camps to better manage and fairly allocate the free energy shares to shelters. This will help raise awareness and help refugees manage their consumption.

Building Resilience for Urban Refugees. UNHCR is less directly engaged in catering for the energy needs of urban refugees. More than half of the refugees outside camps reported having difficulties paying for electricity in Q2 2023. For those who could pay, the average utility bill was around JOD 30 (some \$42), a significant portion for refugee households whose average expenditure per month is around JOD 320. To support refugees in better meeting their basic needs including energy, UNHCR provides monthly cash assistance for the most vulnerable refugees and some vocational trainings and livelihood opportunities to strengthen their self-reliance.

Looking Forward. With clean energy provided through different solar plants, UNHCR aims to gradually phase out diesel generators, which provide energy for common facilities and make the camps **nearly 100 per cent solar-powered, reducing the environmental footprint of refugees in Jordan**. On top of delivering green energy, UNHCR will aim at **increasing hours of electricity provision** in camps up to 24/7 service.



**\$9.3MIL
NEEDED**

UNHCR is committed to providing **sustainable access to clean energy** for refugees in Zaatari and Azraq camps. While exploring different sources of additional clean energy, UNHCR aims to strengthen awareness and responsible energy consumption by refugees as well. UNHCR will also **reduce carbon footprint** of its operation. To do this, **we need \$9.3million in 2024**.

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