

Improving Refugee and Host Community Access to Sustainable Energy Worldwide

What does UNHCR do?

UNHCR is entrusted with protection of displaced persons, ensuring that all people of concern to our agency under our mandate are safe from violence, poverty, exploitation, and refoulement. We provide emergency response in times of crisis and sustained assistance in times of protracted displacement, coordinating with other UN agencies, NGOs, and the private sector to create a multisectoral approach to addressing the multifaceted protection needs of displaced persons.

We work tirelessly with our partners in the field and at the global level to address the urgent needs of refugees, taking an approach inclusive of gender, age, and specific needs to make sure no one is left behind. Working with governments and various stakeholders, we identify refugees in need of medical assistance, provide refugee children with access to education, ensure refugees have access to essential services – including energy - and goods required to meet their daily needs. We also facilitate capacity-building of partners and stakeholders to provide quality oversight and care for vulnerable persons.

By investing in UNHCR, you contribute to helping refugees and asylum-seekers receive the care and support they need to live their lives with dignity and in safety.

Image top: In the communal room of their house, three refugee brothers revise their homework lighted by a petrol lantern. There is no electricity in Bujumbura. Burundi. © UNHCR/Frederic Noy

Why Sustainable and Renewable Energy?

The challenge

Access to sustainable and renewable energy is a basic need and key to overcoming poverty, resolving environmental degradation, and mitigating the effects of climate change. Restrictions on energy access negatively impact communities in humanitarian settings, especially refugees and other displaced people. **Over 90 percent of refugees living in rural settlements have very limited access to reliable, clean, and sustainable energy.** Restrictions on access to safe sources of energy poses serious risks for displaced and vulnerable people, as well as their surrounding communities. Well-planned energy interventions can provide significant benefits associated with protection, gender equality, food security, water, sanitation, health, education, livelihoods, connectivity and environmental protection.

Access to safe and reliable energy is essential for refugees to live in safety and with dignity, enabling them to cook, provide light for and heat their homes. However, the use of firewood and biomass for fuel can lead to **massive deforestation and land degradation**, which can exacerbate the effects of climate change and contribute to displacing refugees and their host communities. In some countries, the use of firewood by refugees has led to dramatic levels of deforestation and created tension and conflict with host communities, undermining refugee safety and ability to access reliable energy for refugee needs.

Lack of access to renewable energy and continued reliance on biomass energy sources **increase protection risks for women and children**, placing them at greater risk of being targeted for sexual and gender-based violence, as women often travel long distances to remote areas to collect firewood.

The use of fuels and biomass for energy can have **severe health implications**, as burning fires in homes can cause respiratory and eye diseases and exacerbate already fragile health conditions in vulnerable persons. The use of candles can contribute to **vision problems** due to refugees straining their eyes to conduct basic tasks, including schoolwork, in near darkness. Moreover, the **risk of burns** from diesel fuel for cooking stoves and heaters is high, putting children and other refugees at risk. Women are disproportionately affected.

Energy and climate change

Use of non-renewable fuels is a major contributing factor to **climate change** and an exacerbating factor for existing conditions created by climate change. Over the past decade, weather-related disasters exacerbated by climate change triggered an average of **21.5 million new displacements each year** – more than twice as many as displacements caused by conflict and violence.¹ In 2019 alone, weather-related hazards led to some **24.9 million displacements** in 140 countries around the world.² A recent World Bank report indicated that **an estimated 140 million people from sub-Saharan Africa, South Asia, and Latin America could end up internally displaced by 2050** due to hostile conditions created by climate change if urgent global action is not taken.³

1 <https://www.internal-displacement.org/database/displacement-data>

2 <https://www.unhcr.org/news/stories/2020/12/5fc74f754/climate-change-multiplying-risks-displacement.html>

3 <https://www.worldbank.org/en/news/infographic/2018/03/19/groundswell---preparing-for-internal-climate-migration>



Bulgaria. A Syrian mother from Aleppo, Meysa Mao, preparing dinner under candlelight for her three children (left-right), Yosif (4 years old), Mohamed (2 years old), and Halil (9 years old). They live in a container in the closed camp in Harmanli. © UNHCR / D. Kashavelov

The International Federation of Red Cross and Red Crescent Societies estimates this number could be even higher; IFRC speculates that **climate-related disasters could double the number of people requiring humanitarian assistance to over 200 million each year by 2050.**⁴ Providing sustainable and renewable energy options for displaced communities is crucial to combatting climate change, preventing further displacement, and helping people rebuild their lives.

Opportunities for partnership

UNHCR seeks to embark on new partnerships to improve the quality of life for refugees and their host communities worldwide. Combining the expertise of private sector partners on clean energy solutions, with UNHCR's commitment to finding sustainable solutions to refugees, will enable more refugees to live in safety, host communities and the forcibly displaced to find work, and more children to study and earn their own wages in the future. Access to safe, reliable, and sustainable energy is crucial for improving refugee and host community relations and contributing to sustainable development.

⁴ International Federation of Red Cross and Red Crescent Societies (IFRC), "The Cost of Doing Nothing: The humanitarian Price of Climate Change and How It Can Be Avoided" (Geneva, 2019).

What are UNHCR's Goals with Sustainable Energy?

In October 2019, UNHCR rolled out the [UNHCR Global Strategy for Sustainable Energy 2019-2024](#), which aims to enable refugees ⁵, host communities, and other persons of concern to UNHCR to meet their energy needs in a safe and sustainable manner.

Between 2019 and 2024, UNHCR is promoting four strategic action areas for sustainable energy interventions:

- Addressing refugee households' energy needs from the onset of an emergency;
- Improving refugee access to sustainable, clean, safe and affordable household cooking energy, including natural gas;
- Ensuring refugee homes have sustainable electrification;
- Connecting community and support facilities with sustainable electricity, including water supplies, street lighting, schools, and health centers.

UNHCR's goals of providing accessible, affordable, safe and sustainable energy to the needs of vulnerable communities around the world align closely first and foremost with protection and health outcomes. This is in line with a number of private sector's commitments captured under the Global Compact on Refugees and its pledges on addressing the complex global challenge of energy access. Global stakeholders recognize the growing global demand for access to reliable and sustainable energy and the need to embrace technology changes, address climate change, and help communities transition to lower-carbon, multisource energy systems. UNHCR seeks to build partnerships to provide communities in need with long-term, sustainable access to energy to enable them to take charge of their own development, cook and provide for their families, run businesses, attend school, move around safely, and lead dignified lives. Through partnership with UNHCR, private sector partners are well-positioned to help bring cleaner and more reliable energy sources to the world's most vulnerable communities.

In order to meet the UNHCR Global Energy Strategy goals, UNHCR requests extensive support from private sector partners to facilitate access to sustainable and renewable energy sources for vulnerable refugees around the world. This can involve financial and in-kind support, as well as technical expertise and knowledge sharing.

⁵ The UNHCR Energy Strategy applies mostly to refugees and their host communities but may in some cases be extended to include returnees, stateless persons, and IDPs.

Improving Access to Energy in 2021 – Examples of Planned Interventions

Through partnerships with governments, NGOs, and the private sector, UNHCR is implementing the Global Energy Strategy by providing quality access to sustainable and renewable energy resources for refugees across the world.

UNHCR's activities include:

- Distributing LPG-powered clean cookstoves
- Providing electricity to refugee households and communities
- Training refugees to produce and use clean energy products and manage solar energy systems
- Setting up electric power facilities
- Providing solar panels and lamps
- Connecting refugees to national electric grids
- Installing solar panels in schools, libraries, medical facilities, and community buildings
- Converting boreholes and water pumping mechanisms from diesel fuel to solar power

Below are some examples of how UNHCR is addressing refugee and host community energy needs:

Uganda

Using solar energy to improve refugee access to clean water

To make use of Uganda's long periods of sunshine and maximize the efficiency of the solar powered boreholes and water pumps, UNHCR is transitioning water systems from diesel dependency to solar energy in refugee settlements. This enables the water systems to provide a larger quantity of water to communities for longer periods of time, increasing the amount of clean water available per capita, and contributing to better hygiene and sanitation practices to reduce the likelihood of illnesses brought on by lack of access to clean water.

UNHCR's strategy and energy interventions are guided by principles set out in the following directives and action plans.

- High Commissioner's Global Strategic Directions 2017-2021
- UNHCR Policy on Age, Gender and Diversity (AGD)
- The Global Compact on Refugees (GCR)
- UNHCR Strategic Framework on Climate Action
- The 2030 Agenda for UN Sustainable Development Goals (SDG)
- Global Plan of Action for Sustainable Energy Solutions in Situations of Displacement (GPA)
- UN Climate Neutrality Strategy and the objectives of the Paris Agreement.

Tanzania and Kenya

Combatting COVID-19 through improving hospital access to electricity

Solar-powered electricity allows medical staff to run hospital equipment and laboratory systems 24/7, enables vaccines to be properly refrigerated, and supports medical diagnosis and treatment to effectively respond to the COVID-19 pandemic. In Tanzania, UNHCR is installing solar panels in the main hospital, which provides services to over 135,000 persons – about 56% of the total refugee population. In Kenya, UNHCR is providing solar-powered electricity in hospitals and COVID-19 isolation centres to address energy shortages and ensure that the centres can be fully operational.

South Sudan

Providing life-saving assistance through access to clean cooking energy

Consistent access to reliable energy is needed to cook, process and preserve food, conserve vaccines for human and animal disease prevention, and irrigate crops. The provision of sustainably sourced cooking fuel, coupled with appropriate, efficient, and clean cooking technologies, is also a life-saving intervention. In South Sudan, UNHCR supports refugees with materials, skills, and knowledge to produce fuel efficient stoves, which will be accompanied with training on energy saving practices. In line with the Global Energy Strategy goal on expanding sustainable electrification of community and support facilities, UNHCR is also setting up streetlights at strategic locations in camps and supporting distribution of solar lanterns.

Burundi

Providing light to protect women

In Burundi, UNHCR has invested greatly in renewable energy for lighting and domestic usage by installing solar-powered streetlights in all camps and in the larger host communities and provision of solar lamps to refugees. This has helped reinforce residential security and reduce the risk of GBV around communal areas, as well as improve the studying conditions for children. Remarkably, the new camp in Nyankanda, is powered entirely by solar energy - the innovative result of a conveniently located solar plant that provides electricity across all community infrastructures and residential clusters in the camp. UNHCR will continue to scale up renewable energy initiatives by replacing the power supply with solar energy, particularly in refugee camps where electric equipment is in poor condition and where the risks of GBV are highest.

Uganda

Lighting refugee homes to improve quality of life

On average, the refugee and host communities in Uganda own less than one light source and 1.5 light sources per family respectively, with heavy reliance on low-quality and energy inefficient fuels such as kerosene and firewood. Recent assessments found that 93% of refugee and host community rely on wood and kerosene energy for cooking, with only 45% of refugee and 20% of host community households reporting use of energy-saving stoves. Since 62% of refugee children are of school age, access to reliable and quality household lighting is crucial for ensuring that children can study and complete academic assignments so they can remain in school. Solar lanterns are inconsistently provided and those that are given to refugees are often sold for cash to meet other urgent needs. UNHCR's energy interventions in Uganda include providing cash assistance for refugees to support their energy needs and facilitating access to energy-saving

cooking equipment for refugee households. UNHCR is also upgrading schools, health centers, and community facilities with energy-efficient equipment and sustainable power supplies, providing electricity to refugee households, and installing, operating, and maintaining street lights in locations where refugees live to improve safety and quality of life.

Bangladesh

Restoring forests and providing clean gas to protect the environment

In **Cox's Bazaar**, UNHCR initiated environmental rehabilitation and alternative energy projects to reduce refugee impact on the environment and improve lives in the Rohingya settlements. Tree planting and reforestation activities have led to complete transformation of the areas surrounding the refugee camp, generating shade and enabling the land to heal. Refugees and some 30,000 local Bangladeshi families now use Liquefied Petroleum Gas (LPG) for cooking, which has led to an 80 percent drop in the demand for firewood, protecting the environment and reducing competition between refugees and host communities for natural resources.

Chad

Training local communities on solar energy installation and maintenance

To facilitate the conversion to renewable energy sources at scale in Chad, UNHCR recently set up one training center to train at least 12 technicians on solar energy installation and maintenance. This initiative complements UNHCR's existing initiatives to solarize boreholes, health centers, and schools in refugee camps.

With generous contributions from private sector partners, UNHCR would be able to address and provide for the energy needs of refugees and persons of concern in UNHCR operations around the world.

Rohingya refugees receive training on how to operate new gas stoves at a distribution centre in Kutupalong Refugee Camp, Bangladesh.
© UNHCR/Roger Arnold

The Impact of Sustainable and Renewable Energy on Refugee Communities

Development of sustainable and renewable energy infrastructure has a significant impact on the wellbeing of refugees and other persons of concern to UNHCR. Connecting refugee communities to the national energy grids will enable refugees to meet some of their basic needs and to support local energy businesses contributing to connectivity and electrification for both refugee and host communities.

Partnerships with corporations and other private sector partners are a crucial part of UNHCR's energy strategy and play an essential role in UNHCR efforts to develop effective energy infrastructure. This is in line with UNHCR's goals of providing protection and assistance to the most vulnerable communities in the world, empowering refugees to rebuild their lives in safety and with access to reliable energy resources, enabling refugee self-reliance and resiliency, and helping refugees thrive, not just survive.

Clean Energy Challenge

The **Clean Energy Challenge** is a multi-stakeholder effort by individuals, businesses, and organizations to provide clean and safe energy to displaced populations. The goal of the Challenge is to address collective energy challenges and bring affordable, reliable, and sustainable energy to all settlements of forcibly displaced people and nearby host communities by 2030. Through the support of governments, businesses, civil society, and organizations around the world, UNHCR aims to bring systemic change to displacement settings by replacing unsustainable energy with clean, modern energy sources that can be used for households, community services and humanitarian operations.

Led by UNHCR and the Global Plan of Action (GPA), the Clean Energy Challenge aligns the humanitarian community with Climate Action and the UN's efforts in Greening the Blue. The Challenge moves away from grant-based funding to sustainable market-based energy models, engaging the private sector to develop local market capacities. It creates a space for sharing data and best practices between the humanitarian, development and private sectors.

Central to the Challenge is the commitment to support host governments' own energy agendas, build on national capacities and ease the pressure on local communities.

To achieve this goal, UNHCR is targeting **four key areas for development**. These are:

- Meeting energy needs in emergencies
- Providing energy for cleaner cooking
- Supplying electricity for households
- Providing energy for community activities (water, education, health)

For more information or to join the Clean Energy Challenge, please contact the secretariat below:

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UNHCR'S 2021 Energy Priorities - \$10 million for 9 countries

In 2021, UNHCR is investing an additional **\$10 million to improve access to sustainable energy** for displaced populations in 9 countries, and access to clean cooking in 6 countries. These programmes across 4 regions will benefit over 670,000 displaced persons and will be further intensified over the next 5 years. Furthermore, feasibility assessments are currently being undertaken in other key countries to boost the implementation of the strategy. UNHCR is ensuring that refugees and their host communities are fully participating in planning and implementing energy programmes in line with UNHCR's community-based approach.⁶ Through these energy interventions, UNHCR is ensuring that refugees are included in knowledge transfer and capacity-building in technical and business skills so that the energy projects are sustainable.

Through these targeted interventions in 9 countries, UNHCR plans to:

- Distribute sustainable energy appliances for 20,000 households solar /energy efficient cookers, solar lanterns
- Solarize schools and health facilities in host communities
- Provide energy related vocational trainings to guarantee maintenance of the systems and sustainable interventions
- Conduct feasibility studies in selected refugee villages with technical support from GIZ

Regional Bureau for Asia and the Pacific					
Pakistan: <i>multiple locations</i>	\$ 2'600'000	PoC 100'000			
Regional Bureau for East Africa and the Great Lakes					
Kenya: <i>Kakuma</i>	\$ 3'565'000	PoC 100'000			
South Sudan: <i>Maban</i>	\$ 115'000	PoC 32'500			
Burundi: <i>Musasa, Returnees</i>	\$ 1'471'000	PoC 200'000			
Ethiopia: <i>Asyaita and Berhale</i>	\$ 555'250	PoC 30'625			
Regional Bureau for West and Central Africa					
Chad: <i>refugees, IDPs, hosts</i>	\$ 1'000'000	PoC 40'000			
Cameroon: <i>Gade, Mbile, Minawao</i>	\$ 350'000	PoC 154'400			
Regional Bureau for Southern Africa					
Malawi: <i>Dzaleka and hosts</i>	\$ 258'000	PoC 17'000			
Zimbabwe: <i>Waterfalls Transit Center</i>	\$ 62'500	PoC 60			
Budget: M\$ 10 / Beneficiaries: 670'000 PoC / Timeline: 2020-2021					

⁶ For more information on UNHCR's community-based approach, please see <https://emergency.unhcr.org/entry/50478/communitybased-protection>

How You Can Support UNHCR

UNHCR's global needs for support in sustainable and renewable energy are vast and underfunded for 2021. **Currently, the agency requires over USD 100 million to cover needs for sustainable and renewable energy in over twenty key operations globally.** Through the implementation of the Global Strategy for Sustainable Energy, UNHCR seeks to provide widespread electrification of refugee homes and communities, promote the transition from dependency on biomass fuel to renewable energy sources, eliminate competition for resources between refugees and host communities, and improve the quality of life for persons of concern.

Through partnership with the private sector UNHCR will be able to scale up its efforts to provide sustainable and renewable energy to vulnerable persons under the agency's protection around the world, reaching more persons in need of access to reliable energy sources and contributing to sustainable development in host communities.

Together, UNHCR and private sector partners will lead in the planning and development of adequate emergency responses that employ advanced energy solutions to the energy-related challenges refugees face in displacement.

To address the urgent needs of refugees and the other persons UNHCR protects, UNHCR urgently needs the financial, technical and in-kind support of private sector partners in the following areas:

- Leveraging corporate and technical expertise and specializations to support UNHCR's energy activities through providing financial, in-kind, technical, and knowledge support
- Committing to the Clean Energy Challenge and collaborating and building coalitions across sectors to improve vulnerable community access to clean and sustainable energy sources
- Providing in-kind solar panels and materials to provide electrification to households and communities
- Addressing refugee households' energy needs from the onset of an emergency
- Providing household clean cooking energy (e.g. safe cookstoves)
- Electrifying of households and community and support facilities
- Providing of clean, sustainable cooking fuel and clean, efficient cooking stoves as part of UNHCR's non-food item (NFI) distribution
- Conducting humanitarian needs assessments to identify the most vulnerable persons
- Providing hand-held solar lamps as standard items in non-food item (NFI) distributions
- Providing cash-based support to refugee households to enable refugees to purchase sustainable energy products from local communities to support local economies

- Providing clean, energy-efficient heaters for refugee households and training for refugees on safe and proper usage of heaters
- Working with energy providers to promote connection to national energy grids and decentralized renewable energy mini-grid systems
- Working with UNHCR to collect data on the energy needs of displaced populations and designing bottom-up climate-related sustainability projects
- Supporting data collection to measure impact from environmental and energy-related sustainability projects

The partnerships between UNHCR and the private sector will increase the capacity of UNHCR to provide sustainable and clean energy to the world's most vulnerable communities, allowing refugees to rebuild their lives with dignity and in safety while also providing essential resources to vulnerable host communities.

UNHCR Energy Needs in Key Operations 2021

Activity	Cost (USD)
Energy advocacy to be conducted	730,000
Alternative/ renewable energy to be promoted	49,802,000
Domestic fuel to be provided	12,881,000
Electricity/ lighting to be provided	23,899,000
Energy-saving practices to be promoted	11,765,000
Energy cash grants to be provided	3,328,000
TOTAL	102,405,000