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ENERGY FOR REFUGEES



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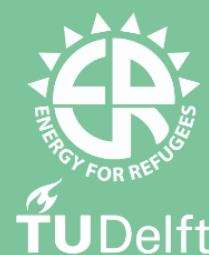
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Energy for Refugees

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The 2021 Team

EfR is a nonprofit organization based in the Netherlands. Our mission is to implement sustainable technologies to meet the energy demand in refugee camps. We want to improve the living conditions of refugees and contribute to dignified aid efforts of NGOs, whilst including the opinions and engagement of local residents and NGOs.

Update on Past Projects

2018 Lesvos, Greece - Kara Tepe*

That year a group of master students from different faculties and nationalities within TU Delft designed and installed a 5kWp solar PV system in a classroom in the Kara Tepe camp in Lesvos, Greece the summer of 2018.

2019 Lesvos, Greece

After the first project, a new board was selected and started working towards the same goal, this time it was possible to collaborate with Eurorelief, an NGO in charge of the main section of the Moria refugee camp in Lesvos, Greece (the largest refugee camp in Europe).

The second EfR project consisted of the design, funding, procurement, and installation of a 25kWp solar PV system to reduce the frequency and the duration of black-outs (mainly increased in the winter as the heating demand increases). It took seven months of preparation before the team traveled to Greece to install the solar PV system, during this time the team completed the required technical training, designed the solar PV system, raised the required funds (the most difficult part), and make sure the components were safely shipped to the destination. During 3 long and sunny weeks, the team worked against the clock to install 90 solar PV modules, 2 inverters, and the necessary cabling and electrical protection devices.

We estimate that the project is displacing the use of 9,000 liters of diesel per year, which saves about €12,600 (based on the local price of diesel), which can be used by the NGOs to improve other areas of the camp. This corresponds to a reduction of the camp's CO2 emissions by around 24,000 kg of CO2 per year.

2020: Nigeria and Greece

The 2020 year team was the largest yet in EfR and developed projects with two camps: the Moria camp in Lesvos, Greece, and the Calabar camp in Nigeria. Their primary humanitarian focus at these camps, based on the communication they received from the camp residents, was addressing the safety and gender-based violence issues at these camps.



2020 Lesvos, Greece

In continuation, technical solutions were designed to address the aforementioned issues at the Moria camp in Lesvos Greece. The team collaborated with EuroRelief an on-ground NGO at the camp location. This project was also centered on a solution based on PV lights. The main objective of this project was to replace malfunctioning or broken PV lamps installed by the previous teams, replace lamps that were connected to a local grid, and in addition to this design validation of light routes in the camp in order to improve safety within the camp. This aimed to reduce sexual and gender-based violence within the camp. Their technical solution comprised modular solar panel lamps, that were fully self-sustainable.

When the global pandemic hit, the team has to shift the focus of the project as they were no longer permitted to visit the campsites. To deal with this complication, they worked closely with a Greek contractor specialized in PV light installations to review their technical designs and ensure that implementation could still be possible despite the travel restrictions.

As the global pandemic evolved, some COVID-19 cases were detected within the Moria camp; this gave the Greek authorities motivation to ban freedom of movement, effectively turning it into a concentration camp. Due to desperation, the refugees themselves set fire to the camp in an attempt to force the hand of the government to provide them with better living conditions. Since the technical solutions developed by the 2020 team were completely based on the internal structure and layout of the camp, which no longer existed, the project had to be canceled.



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2020 Calabar, Nigeria

Initially, the team had been working towards a solution for the camp in Abuja but due to a lack of on-ground NGOs at Abuja, the camp in Calabar was pursued. Although Calabar also did not have any on-ground NGOs present to collaborate with they did have the African Development Initiative (ADI) that was willing to help the team implement their solution. The technical solution for Calabar also included modular solar PV lamps, but in addition to this, the possibility of a water pumping system was explored. As it was, the women in Abuja had to walk for 30 minutes to retrieve water. A pump to bring the water above-ground into a tank was designed and local vehicles organized to transport the water back to the camp.

The Abuja camp was divided into four quarters, with three quarters comprising men and one of women and children. This created a dilemma regarding the distribution of the team's solution; inequity in distribution would create a high risk of internal camp conflicts however there was a clear quarter of the camp that needed to be prioritized. ADI conducted interviews and surveys within the camp to discern what the best approach would be, and the conclusion was to prioritize the women and children's quarter. Lamp distribution and installation were prioritized in this quarter of the camp while still providing the remainder lamps to the other quarters.

With regard to the water pumping solution, when a water test was carried out at the camp, extremely high lead levels in the water were exposed and it became clear that pumping it would be encouraging consumption of water which was not safe for the residents. Therefore, this solution was discarded. Unfortunately, 6 months into the project, due to the progression of the COVID-19 pandemic, Nigeria became classified as a red zone country and internal TU sponsors moved against the team traveling to Nigeria. This sadly brought the project to a halt.

Amid COVID-19

When both projects were canceled, a combined project X was explored, with the two teams working together. Solutions within the Netherlands and Europe were explored and the focus shifted to fundraising to enable the next year's team to continue developing a modular solution that fell within the regulations imposed due to COVID.

EfR received a lot of grants which were withdrawn due to the priorly mentioned complications as they were tied to the implementation of the project, this meant that we lost up to 20k euros in potential funds.

Sponsorship: Successful projects in the past

Energy for Refugees is dependent on the goodwill of other organizations and a dedicated community who want to contribute to make the world a better place and improve the lives of the less fortunate. Without the support, it would hardly be possible to organize and execute projects of this scale. Every donation, no matter if big or small, helps us to implement our plan and better the living conditions in refugee camps.

In the previous years, we were able to generate income from various sources. Two of the most essential sources of income for Energy for Refugees are grants and sponsorship collaborations. Furthermore, EfR coordinated a highly successful crowdfunding campaign on social media which also demonstrated the importance of this project for many individuals in our society.

If you want to make a difference and help us promote the well-being of refugees, contact us directly. For further information please visit our website. You can find the URL to our website and the contact information at the bottom of the page. We are thankful for your involvement and appreciate any kind of support. Technical expertise, materials and equipment, training sessions, advertisements, or even just a heart-warming email to show us your support are always tremendously appreciated.

In the past, Energy for Refugees has collaborated with many organizations from different fields and backgrounds. We experienced great support from institutions related to academia, firms from the private sector as well as other NGOs and student organizations. As already mentioned above, those partnerships are decisive for the stable operation and the success of our projects. Therefore, we want to thank all of you and hope that you will stay among our sponsors in the future.



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