



Morningstar Controllers are Part of the Safety Nets in Uganda Refugee Camps

“The Morningstar charge controllers have been tested and are highly reliable products with a very high charging efficiency. Their fanless design makes them suitable for remote dusty sites as compared to other controllers with cooling fans.”

Mr. Lubowa Muhammed
Managing Director
All in Trade
Kampala, Uganda

Summary

- There are over 68 million refugees in the world, and Uganda alone hosts over one million refugees within its borders.
- In refugee centers “Protection desks” are usually the first stop in assisting and processing vulnerable incoming refugees, and are dependent on electrical power for operation.
- Morningstar TriStar controllers support vital computers and phone charging stations.

Situation

Since Biblical times, the story of refugees is all too common...leaving in the dark of night with only the clothes on their back, hoping to find a place of peace to rest their heads. Unfortunately it's also one that applies today— in 2018 a record high number of 68.5 million men, women and children were driven from their homes due to war, violence and persecution.

In modern times, refugees are exceptionally vulnerable as they are no longer protected by a government or state, and, in some cases, are fleeing persecution from that same entity. That's why the UN established a Refugee Agency, the UNHCR, as a global organization dedicated to improving the lives of refugees fleeing from violence, persecution, war or disaster at home. Ironically, their mission literally starts close to home for many in need: since a refugee's travel options are limited, nearby developing regions currently host some 85 percent of the world's refugees.

Uganda is an example, providing for over one million refugees seeking shelter. It is the third largest refugee hosting country in Africa, and eighth in the world. Refugee camps in Uganda differ from other countries in that there are no fences. Landowners and the government there donate land to the refugees, who are allowed access to farming land, health care and education. And it is here where government land is limited that UNHCR works with non-governmental organizations, or NGOs, to install protection desks at refugee camps in the northern and south western regions of Uganda.

Project

One of the first steps for incoming refugees is the protection desk, where refugees register upon entry and return for vital assistance including first aid services, security, emergency food, safety, crime issues, counseling and complaints. It is also where people with special needs are identified and receive support, including the disabled, elderly, and those with mental health needs. Maintaining such protection desks requires a reliable power supply to support the computers, printers, internet routers, phones and lighting needed to document, track, and administer assistance to the incoming refugees.

Solution

All in Trade, the leading solar contractor in Uganda, worked with UNHCR NGO partners to provide six protection desk installations including the Nakivale, Palabek, Bidibidi, Kiryandongo, Adjumani and Imvepi refugee settlements in the northern and southwestern regions of Uganda.

A typical site's solar electric system is comprised of three solar PV modules of 270W for a total of 810W per site, two 200AH batteries connected at 24VDC, and a 2000W/24VDC inverter. Each site contains a Morningstar TriStar 45 amp solar controller to maximize output and manage energy storage and battery health.

Each system typically powers the following loads, the equivalent of a small to mid-sized office:

- 20 mobile phones
- 3 laptop computers
- 1 internet router
- 1 desktop printer
- 5 lights

Since the protection desk provides a safety net for the incoming refugees and ensures their secure processing, it's important that the solar charge controller in each system is highly reliable to maintain continual operations. "We have used Morningstar for quite some time now, more than 8 years and it has always performed well...we have also used Morningstar charge controllers on many other big projects," stated Mr. Lubowa Muhammed, Managing Director, All in Trade, Kampala, Uganda.

After the initial intake and emergency support at the protection desk, refugees can return to pursue new opportunities following their displacement from their homeland. They may participate in training programs to continue their education or develop work skills which ultimately will benefit their entire community. Most aspire to eventually return home, but until then Uganda has given them a place to rest, regroup and rebuild, and "get on with their lives."

