

The Challenge

High in the jungle and inaccessible by motor vehicle, the native community of Mushuk Lamas has yet to be connected to the grid by the Peruvian government. Living half their lives in the dark means it is difficult to study and learn after sunset, makes cooking and cleaning more challenging, and limits economic development for this hard-working community.



Twende Solar

Why Studer

Needing rugged and reliable system components to keep the Mushuk Lamas community empowered for years to come in their tropical, jungle environment, STUDER was the perfect choice for power electronics. With a 10 year warranty and widespread use in Peru, Twende felt confident that the donated system would be in good hands in the rare event special maintenance were needed.

The Solution

With community investment and sweat equity along with volunteer designers and installers, Twende Solar organized donations of supplies, funds and volunteers to install a 7.2kw off-grid, ground-mount PV system + battery backup that will produce an estimated 9,800 KWH per year. Powering an Internet tower and bringing electricity to the community center will increase the productive hours of the day and access to information and learning with power to spare once they are ready to transmit to their homes.

System components

The system contains the following components:

Solar Modules:	24 x Jinko JKM305P-72
Batteries:	5 x SimpliPhi Phi3.5
Inverter:	2 x STUDER XTM 4000-48,
Charge Controller:	2 x STUDER VT-65
Racking:	Unirac ULA
Other:	1 x STUDER Remote Control RCC-03 1 x Communication Set Xcom-GSM

Project outcome

Living responsibly off the richness of the land in the protected Cordillera Escalera, the self-sufficient Mushuk Lamas community is able to grow or make most of the things they need to live. With this solar system and battery backup, they now also produce their own electricity and will have access to the basic functions of lighting, refrigeration, and the internet. Generating solar power means the community will be able to improve coffee production and achieve a higher price for their beans through membership in a cooperative.

The Company

Twende Solar | "Twende", meaning "Let's go!" in Swahili and embodies the spirit of the organization. Twende, meaning "let's go" in Swahili, is indicative of the organization's proactive capabilities and dedication to sustainable development worldwide. Based in Portland, Oregon, USA, nonprofit Twende Solar leverages the talent and goodwill of the solar industry to bring high quality, low cost PV projects to communities in need around the globe. Through the installation of renewable energy systems, Twende aims to eliminate poverty, strengthen economies, protect ecosystems, and ultimately achieve a more equitable society. It takes a village - let's go solar, together!

For more information please contact:

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