

# Charged for Change

My name is Emily and I am a junior electrical engineering student. I transferred to Seattle University for their diverse humanitarian projects. I came here passionate to help those in need but never thought I would be someone spending my Spring Break traveling to Zambia to work on a project that will later provide electricity to a rural area.

About 1.6 billion people live without electricity today and roughly 45 percent of that population resides in Africa alone. The Department of Electrical and Computer Engineering at Seattle University has a long tradition of supporting energy development projects. These “humanitarian engineering” projects bring together students, faculty, staff and volunteer-practitioners to bring electricity to the energy-impooverished in less economically developed countries. Most projects involve a small micro grid system. This system includes an energy kiosk, which will provide power in the form of a charging station for cell phones, and portable battery kits. These portable battery kits will then be taken back to homes to plug in light bulbs and other accessories such as a radio or even a TV.

I traveled with Steve Szablya (ECE Department) and Dr. Matt Shields (Mechanical Engineering) to a rural community in Filibaba, just north of Chingola, Zambia as part of an “assessment” trip. The goals of this trip were to assess the local conditions and meet with the community members. More than 230 households had traveled close to 15 kilometers to meet us and ask us questions. It was incredibly encouraging to witness their excitement and curiosity surrounding the project. At the end they performed a skit out of appreciation and cooked chicken, cabbage, nshima—a traditional meal given to welcome visitors into the community.



The last few days were spent in the capital city, Lusaka, to meet with potential business partners for the installation process. I had spent my previous quarter researching possible battery kits (exploring different battery options, comparing potential distributors, etc.) so it was interesting to discuss such topics directly with company representatives.



Here we are in the show room of a potential vender

The assessment trip was an incredible learning opportunity which exposed me to a new, welcoming culture and allowed me to appreciate the depth and opportunity of this engineering project. It was an experience that will continue to drive my educational and professional career to help those in need of basic life essentials we take for granted. I am looking forward to seeing the system installed this summer and integrating myself further into the local community!



