

RESEARCH AND DEVELOPMENT FUND PROJECT SPOTLIGHT

GREEN EMPOWERMENT

AN OPEN-SOURCE SOLUTION FOR SMARTER LOAD MANAGEMENT

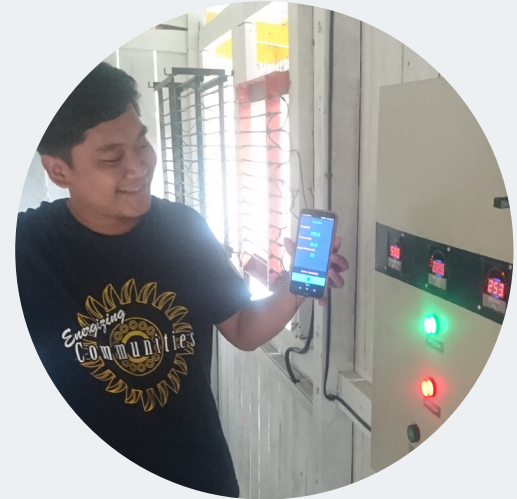
This project will develop an open-source, mini-grid management and optimisation tool. It will be released to a network of developers working to benefit marginalised, indigenous communities.

Off-grid environments present many challenges to electricity providers. These include ensuring that power systems are affordable for consumers and meet their energy demands. Many systems have a power deficit during peak consumer hours and a large power excess during off-peak hours.

Green Empowerment and regional partners in Southeast Asia are developing a reliable communication link between the point of power generation and consumer appliances. Local practitioners can manufacture and install the low-cost, open-source device. It will promote more efficient management of appliance power consumption, which can help ensure reliable power generation.

By developing this technology, Green Empowerment aims to:

- Reduce power outages in peak hours and increase use of available power in off-peak hours through smarter management of productive appliances for household or small-scale industrial use
- Provide more up-to-date system monitoring technology to improve preventative maintenance, fault diagnosis and optimise future projects
- Evaluate financial strategy based on developed technology costs such as PAYGo systems
- Introduce integrating sensors, which will help track environmental factors that influence mini-grid efficiency, such as stream flow rates



AT A GLANCE

R&D Awardee
Green Empowerment

**Efficiency for Access
Funding**
£55,000

**R&D Funding Unlocked
from Green
Empowerment**
£23,478

Project Location
USA