

## SUPPORTING UGANDAN ELECTRICITY SERVICE PROVIDERS PROMOTE PRODUCTIVE USE OF ELECTRICITY BY ENHANCING CONSUMER ENGAGEMENT

Throughout Uganda, productive use of electricity (PUE) – electricity used to create goods and/or services for income – is fairly low, limiting opportunities to grow local economies and improve the quality of life of the population. Although power is available in Uganda, many businesses, communities, and homes lack access to electricity supply. This is in part due to perceived high electricity prices and a lack of understanding how electricity can be used to increase business productivity or enable entrepreneurs start new businesses. As the country works to increase electrification rates through programs such as the Electricity Connection Policy, limited PUE reduces potential economic growth opportunities.

USAID and Power Africa, through the Power Africa Uganda Accelerator, assisted five electricity service providers promote and increase PUE through supporting consumer engagement activities that provided benefits to local businesses,

communities, and households. This support included direct grant financing as well as service provider consumer engagement and PUE strategies. In addition, training was given to entrepreneurs to help them access financing through local funding entities.

Utilities typically have high fixed costs for electricity production. Thus, the more electricity they can sell, the fixed costs decrease per unit of electricity provided. And, as utilities grow their customer base, they can afford to make service delivery improvements on power reliability and quality.

A comprehensive PUE program educates both utilities and their customers on the possibilities of energy use. The utility not only engages its customer base but becomes a promoter of economic development opportunities. However, comprehensive PUE programs take long-term planning and realistic implementation strategies as well as programs to stimulate customer engagement and service uptake.

Through USAID and Power Africa support, four utility service providers developed PUE programs and offerings – ranging from a comprehensive entrepreneur training program showing strong results on Bugala island, to first-time customer outreach and PUE support in Uganda's Central Service Territory, to working with Umeme Limited, Uganda's largest electricity distributor to design a PUE strategy and associated consumer engagement programs.

### SUPPORTING KALANGALA INFRASTRUCTURE SERVICES (KIS) INCREASE PUE ON BUGALA ISLAND

In 2014, KIS partnered with USAID to build a 1.6 MW solar/diesel generation plant on Bugala island to connect 2,900 customers to the island's new power grid. Despite its initial promise, KIS struggled with low connection rates and low power consumption – using only 20% of power capacity in 2018. This unused capacity required a strategy to improve operations by boosting connections and increasing power consumption. Power Africa helped craft and implement a PUE strategy, working closely with KIS professionals to encourage increased PUE on the island. The assistance started by carefully mapping PUE opportunities on the island and identifying entrepreneurs with a willingness to invest in new PUE businesses.

The Power Africa Uganda Accelerator strengthened KIS's efforts to increase PUE by funding and managing trainings to business owners to help them learn



*PUE trainees at a KRECS event.  
Photo: Gloria Birungii/Power Africa  
Uganda Accelerator.*

about how to use electricity to grow their businesses. Working with local entrepreneurs to develop business plans that could utilize modern electrical devices and boost their power consumption, these trainings set businesses on a new path to grow and thrive.

There were other direct effects as well. Helping businesses thrive increased the efficiency of KIS. Power Africa's business development efforts rapidly catalyzed 400 new business connections (a 12% growth in KIS customers) and increased power consumption on the island by 46% (from 130 MWh to 190 MWh). Expanding businesses increased the need for capital: four businesses attracted financing to expand operations and services ranging from food service to healthcare.

When Dr. James Ssuubi and his family moved to the island in 2014, he planned to provide free healthcare to the island residents. This plan changed when he had the opportunity to work as the medical in-charge at Oil Palm Uganda Limited to care for ailing company workers and the surrounding communities. However, his idea for a healthcare center remained. When Dr. Ssuubi was approached by KIS

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**46%** INCREASE IN POWER CONSUMPTION

in 2018 with a request to provide a venue for a PUE training, he agreed, but ended up attending the trainings which showed him that he could invest in modern medical equipment, power that equipment, and provide health care for the community.

*"KIS originally thought I would not attend the PUE training, but I was intrigued, so I attended. I was asked whether I thought I was maximizing my potential. And they challenged me to reflect on how I could use my talents and skills to impact lives. I realized that I needed to do more. They promised to help me achieve my dream. They worked with me to identify new business ideas, provided business planning advice, and kept pushing until I opened a medical center with an X-Ray, ultrasound, and ECG machine and home-based care services."*

The Eunice Medical Center is a welcome addition to the healthcare system and significantly improved access to quality healthcare on the island. These types of socio-economic transformations are at the heart of KIS's work—as businesses improve, the standard of living improves. Electricity was key to realizing these improvements.

DEVELOPING A PUE CAMPAIGN AND CONSUMER AWARENESS STRATEGY FOR KYEGEGWA RURAL ELECTRICITY COOPERATIVE SOCIETY (KRECS)

KRECS, a small electricity utility cooperative licensed to distribute electricity in six districts in Uganda's Central Service Territory, had limited interaction with its customers who therefore lacked awareness of the organization's services. With low customer electricity usage, KRECS's high operations cost kept the utility's profits low. KRECS struggled with low customer satisfaction (and low payment rates) – this was partially due to intermittent power.

In April 2020, USAID and Power Africa supported KRECS develop and conduct a PUE campaign and consumer awareness strategy to increase electricity connections and design a targeted PUE training program that tied electricity use to increased incomes for customers. KRECS offered PUE training to both its staff and local entrepreneurs to demonstrate the value of electricity for rural business growth and social transformation. The consumer awareness strategy included door to door customer engagements, radio advertisements, and talk shows about the ECP and KRECS's services. Over 1,000 people were reached through the awareness campaign; since then, over 170 are now connected to grid power.



Dr. James Ssuubi showcases health care equipment at the medical center. Photo: Barnabas Mugabi/Power Africa Uganda Accelerator.



*“The consumer awareness and PUE trainings have helped KRECS operationalize a customer awareness manual with regular meetings in the communities. We have also developed a stakeholder matrix to engage local leaders and rally their support towards mobilizing more people to get connected to electricity,”* said Charles Matovu, the KRECS Managing Director.

Following the training, KRECS instituted a working group to manage client complaints. In addition, KRECS’s PUE plan will include activities to focus on agricultural processing, value addition, and working with trade and industry departments at the district level to attract investment in tourism and stone quarrying.

Kamba Ivan owns a timber processing workshop in Rwibale Kyenjojo district. He uses a diesel-powered generator to process the logs into usable timber. In a day, they use 20 liters of diesel worth UGX 80,000 to work on 150 logs. *“Spending that much on diesel in a day is expensive especially for startups like mine,”* said Kamba.

He attended the KRECS customer outreach PUE meetings and is now in the process of acquiring a meter to connect his workshop to the grid. Once completed, he is projected to spend only UGX 20,000 worth of power a day to process over 150 logs. This will save him 1.8 million Uganda shillings a month.

Since USAID and Power Africa support in April 2020, KRECS’s engagement with customers has yielded results. The cooperative was the only one that registered connections during the three-month COVID-19 country lockdown.

#### SUPPORTING UMEME PROMOTE PUE THROUGH A DYNAMIC CONSUMER ENGAGEMENT STRATEGY

The Power Africa Uganda Accelerator supported Umeme Limited, Uganda’s largest distribution company, to develop a PUE Strategy as part of Consumer Engagement Strategy and Implementation Plan. An Umeme Limited consumer survey conducted as part of Power Africa Uganda

Accelerator found that although 76% of the utility’s connections were businesses, those businesses did not have significant electricity consumption. Umeme realized these customers did not prioritize PUE. The survey also found that 90% of the respondents had never received PUE information. These findings highlighted need for a strategy to identify and promote PUE to support an increase in productive loads. The Power Africa Uganda Accelerator developed a manual for PUE promotion to guide Umeme in identifying and promoting PUE as part of its business model.

While the Power Africa Uganda Accelerator developed a consumer engagement pilot program for one district, implementation was not possible due to COVID-19 restrictions imposed by the Ugandan government. Although Umeme is at the beginning stages of PUE development, the strong results from KIS and KRECS show that there are major opportunities to increase PUE through dedicated training, outreach, handholding, and support.