

INCREASING PRODUCTIVE USE OF ELECTRICITY ON UGANDA'S BUGALA ISLAND

For many years, Bugala island, the largest of 84 islands in Lake Victoria, had limited options for accessing energy and power. Residents relied on biomass or kerosene for lighting while businesses depended upon expensive diesel generators for limited power. With few energy options available, new business opportunities were scarce and the economic future of the island appeared dim and uncertain. This future changed dramatically when the Kalangala Infrastructure Services (KIS), a local utility, linked up with Power Africa to provide more power to the 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 productive use of electricity (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.

“We wanted to show communities on Bugala island that they can start up or improve on their businesses to productively use power and help them earn more income,” says Edward Ntambi, KIS Public Relations and Stakeholders Officer.

USAID's Power Africa Uganda Electricity Supply Accelerator (Power Africa Uganda Accelerator) strengthened KIS's efforts to increase PUE by funding and managing trainings to business owners to help them learn 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.

- **400** NEW BUSINESS CONNECTIONS
- **POWER CONSUMPTION INCREASED 46%**
(from 130 MWh to 190 MWh)

Amitta Eunice, a single parent, was unemployed and looking for work when she was approached by KIS staff who encouraged her to participate in one of the PUE trainings on utilizing energy to start a business. Today, she is the proprietor of the restaurant Early Bird Snacks and Tea Point on Bugala island. The restaurant includes lighting for food preparation and service early in the morning and late at night, a television, and refrigeration. She noted, *“The training gave me much more than I expected. It gave me hope and courage to take risks and to appreciate that I could start small. I started the restaurant six months ago. My life and the lives of my children have changed for the better.”*



Amitta Eunice at her restaurant which now includes lighting, TV, and refrigeration. Photo: Barnabas Mugabi/Power Africa Uganda Accelerator.

Viane Tugumisirize, the manager of the Island Best Dairy Farm, noted that he learned a lot in the trainings. *“... but the most important takeaway for me was on value addition and quality. Before the training, we were getting 150 liters of milk every day from our dairy, but we could only sell 50 liters. We tried to make yogurt, but the quality was poor, and a lot of milk was wasted.”* Through the training, he learned how new electrical equipment such as yogurt-making machines and added refrigeration could improve business operations. *“We explored the potential of taking the excess milk to Kampala. But after the training, we realized that there was so much potential in making yogurt locally.”* The farm has improved the quality of its yogurt and expanded production to 500 liters weekly. Their electricity consumption has doubled, and with the profits they make, they plan to acquire more cows to expand their milk production and their business.

Health care also improved. Prior to 2019, if island residents had a health emergency, they had to take a ferry to the mainland for urgent care. The trip took hours, sometimes resulting in fatalities. Thanks to the KIS training, residents now have access to high quality local health care from the Hope Medical Group.

KIS BY THE NUMBERS



90 bankable and fundable business plans developed by local businesses



Power consumption grown by over **45%**



Over **150** individuals trained in increased productive use of electricity



Access to **high-quality** local **health care** services



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

Viane Tugumisirize with a refrigeration unit at the dairy. Photo: Barnabas Mugabi/Power Africa Uganda Accelerator.



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 (OPUL) 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 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.

The Power Africa Uganda Accelerator supported KIS to expand its outreach on PUE by connecting local entrepreneurs with banks and financial organizations. Providing training to over 150 entrepreneurs on business management skills, and working with those entrepreneurs to develop 90 bankable (and fund-able) business plans, the Power Africa Uganda Accelerator increased the entrepreneurs' business capacity while highlighting PUE opportunities in businesses to commercial financial organizations. Assisting KIS with PUE outreach shows how USAID can produce important development results for small businesses, banks, utilities, and lending institutions.



Power Africa Uganda Electricity Supply Accelerator (PAUESA)

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