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PRO POOR RESULTS-BASED FINANCING

INCREASING OFF-GRID ACCESS TO ELECTRICITY IN RWANDA


Addressing the Affordability Gap and Improving Lives through Solar Home Systems

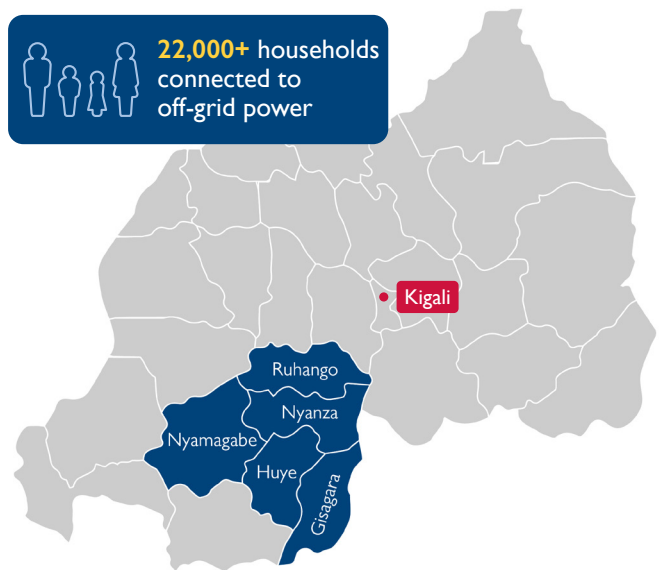
Funded by USAID/Power Africa and UK aid from the Foreign, Commonwealth & Development Office, the Pro Poor Results-Based Financing (RBF) pilot program aimed to accelerate access to electricity for low-income households in off-grid areas through targeted incentives.

Other programs promoting off-grid electrification were focused on access to finance for households and working capital support to companies, but analysis showed that affordability was the key challenge to solar home system (SHS) uptake. The majority of off-grid households in Rwanda were spending less than \$1 per month on lighting and phone charging, far less than the cost of the most affordable SHS of \$3-4 per month.

From January 2020 to March 2021, participating companies sold more than 22,000 SHS to rural customers in five districts in Rwanda's Southern Province.

The success of the pilot inspired the Government of Rwanda, through the Ministry of Infrastructure, to create a nationwide SHS subsidy program for off-grid households based on the design of the Pro Poor RBF.

 **22,000+** households connected to off-grid power



Focus districts for the Pro Poor RBF pilot

Implementers



Energising Development (EnDev) is a strategic partnership of likeminded donors and partners that support access to modern energy in more than 20 countries.
endev.info



Rwanda Energy Group (REG) is the national electricity utility in Rwanda and is responsible for the implementation of government energy initiatives, including household solar systems and mini-grids.
www.reg.rw



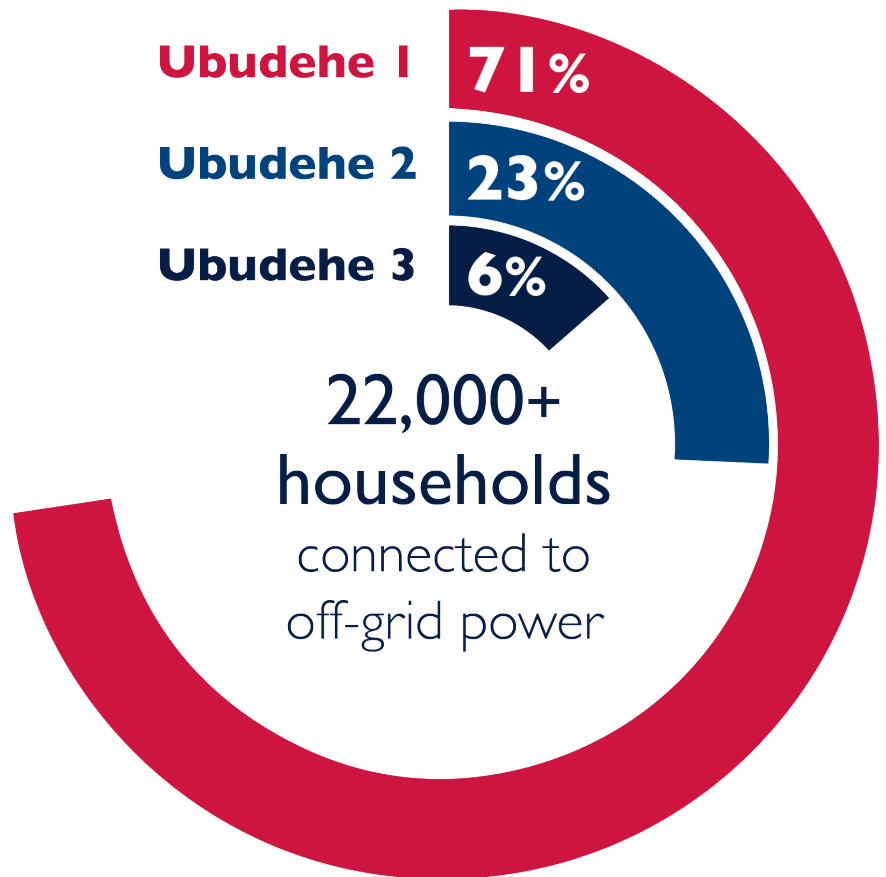
Urwego Bank Plc is a microfinance institution that provides access to financial solutions. It managed the contracting and disbursement of funds for the program.
www.urwegobank.com

Households benefiting from the program

The Pro Poor RBF subsidized the cost of a basic SHS at different levels depending on the Government of Rwanda's socioeconomic categorization scheme called Ubudehe. Ubudehe 1 are the most vulnerable households followed by Ubudehe 2 and 3.

Since January 2020, more than 22,000 households have acquired SHS through the program.

Ubudehe 1	15,752
Ubudehe 2	5,256
Ubudehe 3	1,385
Total	22,393



Beneficiary stories



Tasiana Irikunze lives with her husband and two children in Kabunjwiri village in Huye. They grow soy, beans, and maize to sell at the market. Since buying their SHS, they report feeling safer when going to the bathroom at night, a reduction in robberies, extra hours for the children to study, and more time for entertainment. The SHS is also allowing them to generate more income.

“Before we had light, we sold 20 kg of beans and 30 kg of maize, and now we are selling 40 kg of beans and 60 kg of maize. This is because when we didn't have light, we lost crops due to rotting, while now we have more time to process them.”

Photo Credit: Ignite Power

Gabriel Ndashimye lives with his wife and two children in Ruhamagariro village in Muhanga. They make a living by farming mainly sweet potatoes, cassava, and beans. After purchasing their SHS, they report more time for the children to do homework, fewer thefts of livestock, and being more productive at night. In addition, the extra hours of light have allowed them to open a shop, which has increased their revenue.

“Before I used to buy and sell things I carried on my head and made 15,000 RWF a day, but nowadays, due to the shop, its more than 20,000 RWF.”



Photo Credit: Ignite Power



Photo Credit: Bboxx

Epiphanie Uwitonze lives with her two children in Nyamigango village in Gisagara. Before she purchased her SHS, it was difficult for the family to engage in a number of productive activities during the day and night. Now that she has access to electricity, her children can listen to their school programming on the radio where it is being broadcast due the COVID-19 pandemic. In the evenings, the light allows her to milk her cow. And since she can now charge her phone at home rather than traveling to a charging station, she is saving both time and money.

“The money I used before for charging, I save it now in a community cooperative.”

Companies participating in the program



“The Pro Poor RBF has increased our sales by 40% in the regions covered by the program, which means that several thousand households might never have obtained access to electricity without this program. Such funding to support customers’ economic shortfalls is what is required to accelerate electricity access without compromising on quality of customer experience. If this can be scaled, there would be hope for achieving the United Nations Sustainable Development Goal 7 on energy access.”

- Bboxx

“Through the Pro Poor RBF Program, we have now helped more than 2,000 households obtain access to electricity in less than two months. The program has shown that there are many people in need of electricity, and we are now planning to bring more solar home systems to meet the market demand.”

- Solektra

“We are grateful for the opportunity to be part of such a great initiative. Thanks to the program, BUIM was able to support more than 3,000 households to obtain solar home systems.”

- BUIM

“The Pro Poor RBF helped us to expand our market and to grow the business of the company. It also helped us to increase our experience in renewable energy and facilitated our entry into the nationwide solar home system program.”

- Spotico

Program overview - steps





Lessons learned

Affordability is key to the energy access challenge – Given high upfront costs, companies were making SHS more affordable through pay-as-you-go installment plans, even before the Pro Poor RBF. However, the typical unsubsidized payments were still unaffordable for many off-grid customers. Under the program, companies are selling a larger share of SHS to vulnerable households like those in the Ubudehe I category.

Utilization increases with subsidies – Due to the lower price of each installment, more frequent payments by customers and lower default rates have been observed in the program, increasing the viability of the market for companies. In addition, since most SHS are pay-as-you-go, households are now benefiting from more electricity access since they are able to pay more often.

How subsidy levels are set is critical – Setting the appropriate level of subsidy is generally a difficult but incredibly important question. Analysis of data collected by government on lighting and phone charging expenditures by households without access to electricity was helpful in determining the RBF subsidy levels, which were set to make basic electricity access affordable. In addition, the program was flexible and allowed those with extra income to purchase or upgrade to larger systems and obtain additional appliances.

Piloting new approaches paves the way for large-scale implementation – The successes demonstrated by the pilot program, which were achieved thanks to a strong collaboration on the development of the program between the funders, implementers, and private sector, helped convince the Government of Rwanda and other donors to establish and fund a nationwide SHS subsidy program. Starting on a smaller scale can be useful for building evidence and convincing stakeholders to the potential for success of a program.

A competitive, market-based approach supports healthy private sector development

- All companies selling products meeting the government quality and performance standards are allowed to participate. This inclusive approach has encouraged new companies to enter the sector and gives smaller, local startups an opportunity to establish themselves and succeed.
- Increased competition due to new entrants can lead to more product choice and price reductions for customers.
- RBFs are alternatives to free SHS giveaways, which distort markets and remove potentially viable customers from doing business with the private sector. The lack of investment and ownership by the end user can lead to poor care and maintenance of the product or reselling to others who might have otherwise purchased from existing companies.

www.urwegobank.com/partners/endev/

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