

# Reaching the Last Mile via Results-Based Financing (RBF)

## Increasing Access to Higher Tier Electricity in Uganda



## Objective and Rationale

Uganda's national electrification rate stands at 57 per cent in 2024. In rural areas, it is often below ten per cent. Despite various efforts of the Government of Uganda and development partners to extend and densify the existing electricity grid, there is still a high potential for the solar market to offer off-grid energy solutions for powering still unreached last-mile households. However, off-grid solar (OGS) companies face high customer acquisition and servicing costs, significantly delayed payments and defaults from their customers after extending operations to remote areas. As a result, these companies are exerting caution and reverting to focusing on sales in urban or peri-urban areas, avoiding the establishment of new distribution hubs in the last mile. This leaves a significant part of the population – including customers who

are willing and able to pay for solar home systems (SHS) – without access to sustainable energy services.

The observable risk-aversion, focusing on the easy-to-reach, better-off customers, is directly linked to profitability parameters of the PAYGO business model. The 'portfolio-at-risk' grows as more remote customers are added to the portfolio; these customers have higher servicing costs and higher default risks on their PAYGO instalment payments. The Last Mile RBF was designed to address these barriers and risks **by offering tailor-made incentives for partnering companies to expand their business operations to last mile customers with tier 2 SHS** (according to the [Multi-Tier Framework for Electricity](#)).



**The incentive structure provides access to three incentives for participating companies**

- 1 The remoteness incentive.**  
 This incentive was designed to mitigate increased costs and essentially the risk of serving remote customers. The remoteness incentive was calculated for each household, based on the GPS location of the SHS.

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- 2 The asset financing incentive.**  
 The asset financing incentive helped companies cover the payment default risk of selling tier 2 level SHS systems to customers in remote areas, where credit worthiness is potentially less predictable, and incomes are more variable. The basis for the calculation was the import value of the system.

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- 3 The optional default incentive.**  
 PAYGO companies had a choice beyond cash incentives: they could use a share of the cash incentives to purchase default protection. This means if a customer could not pay, the company could claim back some of its losses. Hence, by using this protection, companies could reduce the financial loss when a customer defaults.

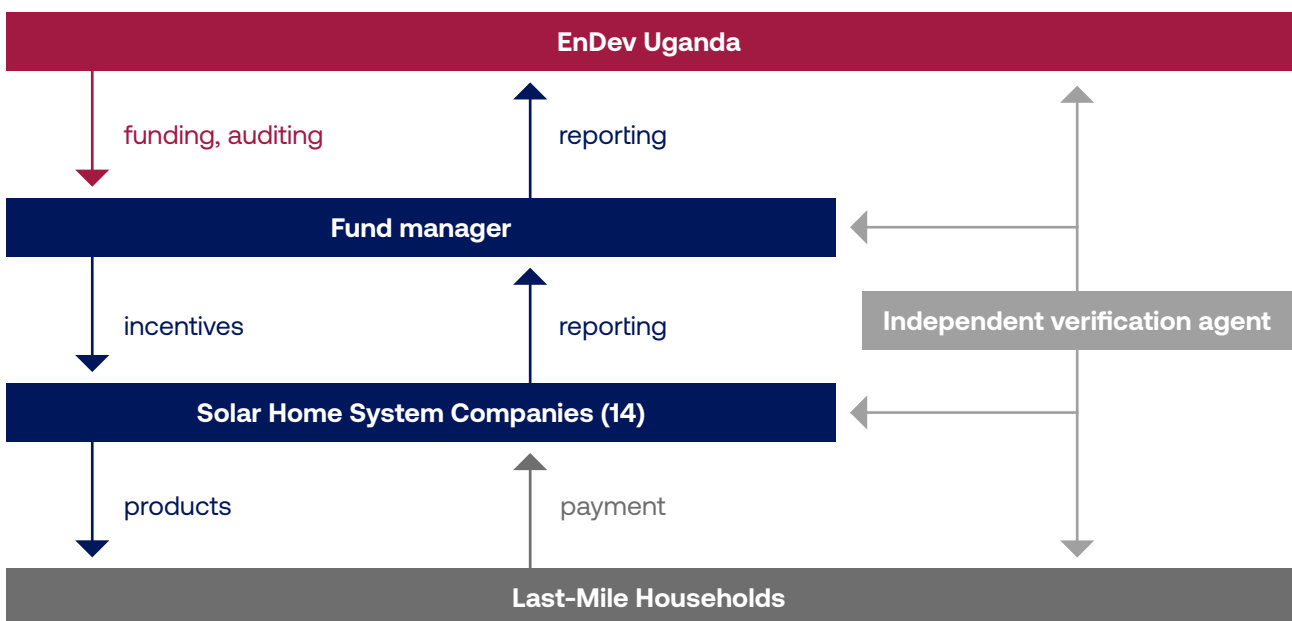


## Implementation Structure

The Last Mile RBF was funded by the United States Agency for International Development (USAID) and the Swiss Agency for Development and Cooperation (SDC) and implemented by EnDev Uganda in partnership with the Private Sector Foundation Uganda (PSFU). EnDev provided the necessary funds to PSFU for the RBF and was responsible for the technical backstopping and strategic steering of the project. Additionally, EnDev onboarded the Independent Verification Agent (IVA) to ensure a robust validation of sales

by participating companies. PSFU served as the Fund Manager of the project, responsible for the day-to-day management, onboarding, and contracting of companies, as well as disbursement of incentives for all verified sales. **In total, 14 solar partner companies** participated and reported their sales quarterly to PSFU. The reported sales were considered eligible for the Last Mile RBF if they met a minimum remoteness index, computed based on the distance from the capital and closest trading centres.

**The implementation structure of the Last Mile RBF**



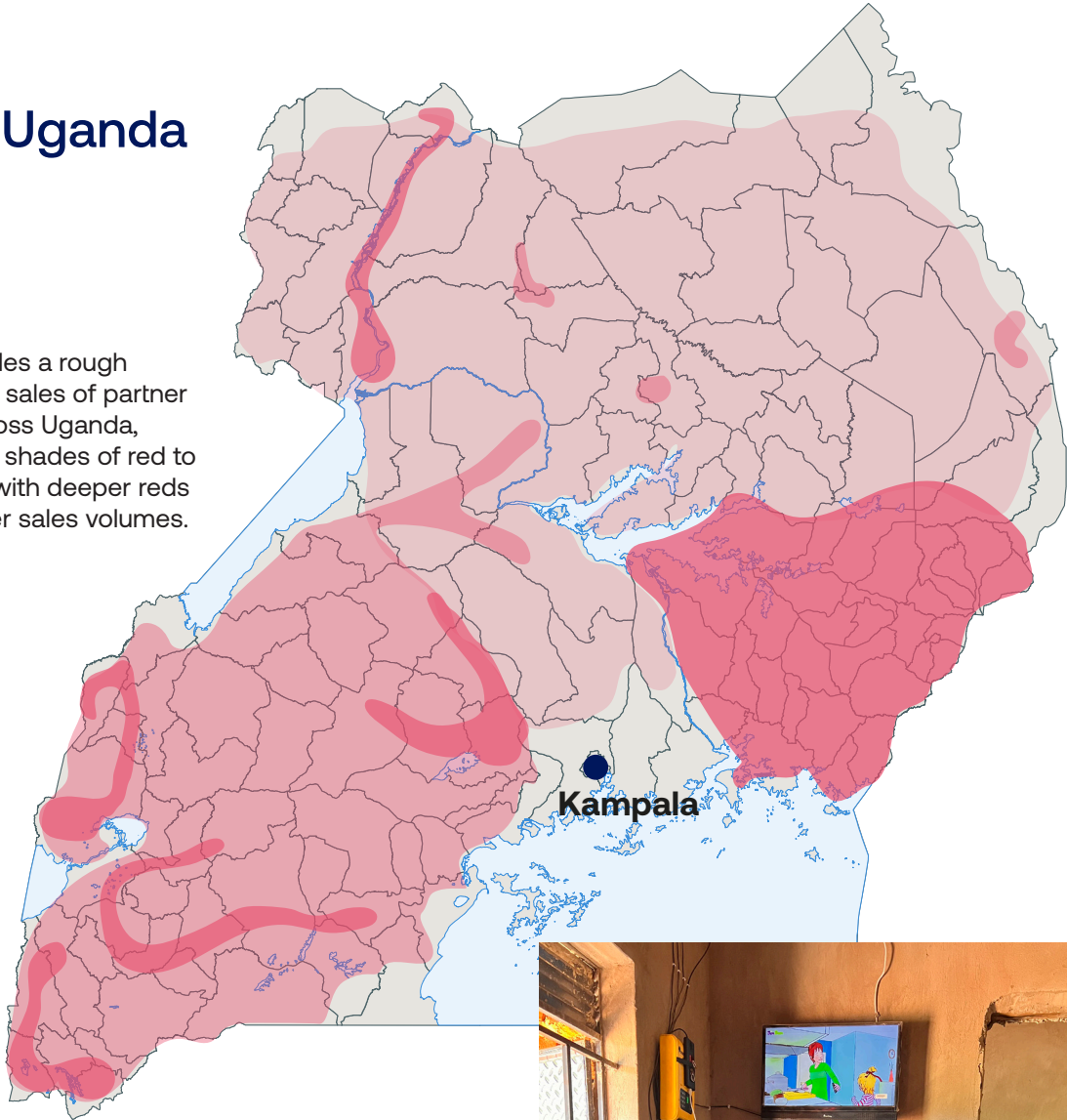


# Overview: Key Results

The Last Mile RBF was effective and enabled participating companies to stretch out their operations to the most remote regions in more than 110 of the 135 districts across Uganda and served more than 25,000 people with tier 2 solar home systems.

## Map of Uganda

The map provides a rough overview of the sales of partner companies across Uganda, utilising varying shades of red to indicate sales, with deeper reds signifying higher sales volumes.



# Results and Impact



Under the project and in partnership with the participating companies, over 25,000 people were electrified with tier 2 solar home systems. People gained access to additional benefits that they did not have before. Depending on the SHS composition, the solar products consisted of multiple light points, charging ports, as well as TVs and/or radios.



A female customer from Eastern Uganda highlights the benefit of her SHS purchase:

*“A candle was my main source of light but with the innovation of solar my life has tremendously improved.”*



The Last Mile RBF and its incentives enabled participating companies to penetrate further into remote areas and reach remote households. As a result, over 5,000 households in most remote regions of 110 out of 135 Ugandan districts now have access to tier 2 SHS.



30 per cent of all SHS were purchased by women across the country, who were happy to have access to information through TV. They also used the TV to access educational content for themselves and their family members.



Participation in the RBF enabled partner companies to access new locations and multiply their sales. One example is a participating company that could expand its operations to more last-mile households and doubled its number of tier 2 sales.



A company dealing SHS in Uganda appreciated the RBF support, stating:

*“Even right now, the project is helping us drive awareness sustainably as more customers bought the products, and you have more ambassadors that can speak to it. We managed to double our tier 2 sales.”*



14 OGS companies, mostly already involved in solar home kits and standalone systems, were contracted under the project.

If you want to learn more about the project, [please use this link](#) to watch a video showcasing the results and voices of the end users that benefitted from the Last Mile RBF.



# Lessons

A support scheme like the Last Mile RBF is necessary to support companies in expanding their outreach to districts with a higher-risk customer profile, as seen in Northern Uganda.

To alleviate resource limitations faced by participating companies, the asset financing incentives proved invaluable in overcoming constraints that might impede successful project implementation.

The incentive structure of the RBF should be clear and straightforward, allowing companies to efficiently convey information and train staff. While the Last Mile RBF successfully reached last-mile customers, the incentive structure was overly complex. Companies were required to carefully weigh the benefits of using the optional customer default incentive against the asset financing incentive.

There is a demand not only for higher-tier (Tier 2 and above) high-quality SHSs but also for other solar-powered products, such as refrigeration, which end users prefer to purchase through PAYGO instalments.

Alongside accessibility, identifying good quality higher-tier SHS remains a challenge for end users in remote areas. Increased awareness of trustworthy certification schemes is essential, particularly in hard-to-reach regions.

There are commercially viable customer segments in remote areas. Companies must adapt to these markets by offering flexible payment plans, such as credit or PAYGO, while ensuring the health of their portfolio through Know Your Customer and credit risk management practices.

For the Last Mile RBF to succeed, companies must continue selling to remote customers beyond the project's duration. This is only achievable if companies' long-term strategic objectives align with the project's goals from the outset.

Establishing linkages with financial institutions to extend operations in remote regions is crucial for companies that lack capital compared to multinational OGS companies.

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**Photos**

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