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LIGHTING A PATH TO AFFORDABILITY

John January and Judith Patisi, Light a Village, Malawi.
Source: SolarAid/Kondwani Jere

A Mid-Term Review of SolarAid's Light a Village Energy as a Service Pilot in Malawi

JANUARY 2026

Efficiency for Access Coalition

This research was commissioned to better understand the impact and potential of SolarAid's Light a Village (LaV) Energy as a Service (EaaS) pilot in Malawi and assess its ability to scale providing first-time energy access in areas where affordability is extremely low. The LaV deep dive is complemented by a broader assessment of EaaS potential in the Assessing the Potential of Energy as a Service to Provide Affordable First-Time Energy Access report.

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DISCLAIMER

This research is part of the Low Energy Inclusive Appliances (LEIA) programme, a flagship initiative under Efficiency for Access. Efficiency for Access is a global coalition dedicated to advancing access to energy and affordable, energy efficient appliances in low-income countries. It is a catalyst for change, accelerating access to off- and weak-grid appliances to boost incomes, avoid carbon emissions, improve quality of life and support sustainable development. LEIA is jointly managed by Energy Saving Trust and CLASP, and funded by the UK government via the Transforming Energy Access platform and the IKEA Foundation.

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Efficiency for Access, Lighting a Path to Affordability: A Mid-Term Review of SolarAid's Light a Village Energy as a Service Pilot in Malawi,

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ABBREVIATIONS

ASCENT	Accelerating Sustainable and Clean Energy Access Transformation
CAPEX	Capital costs
DSS	Demand-side subsidies
EaaS	Energy as a Service
EEP	Energy and Environment Partnership
ESCO	Energy service company
ESCOM	Electricity Supply Corporation of Malawi
EQ	Evaluation question
LaV	Light a Village
MEAP	Malawi Energy Access Project
MWK	Malawian Kwacha
NNNF	Ngwee Ngwee Ngwee Fund
OPEX	Operational costs
PAYGo	Pay As You Go
RBF	Results-based financing
SHS	Solar Home System
TA	Traditional authority
USD	US dollar

EXECUTIVE SUMMARY

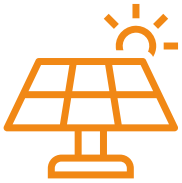
CONTEXT AND OBJECTIVES

Sub-Saharan Africa still faces a significant energy access deficit, and the dominant business models and financing mechanisms have made only slow progress in closing it.

The energy access deficit is decreasing only slightly due to population growth: in 2023, 35 million people gained energy access, but the deficit only reduced by 5 million. The current deficit in sub-Saharan Africa of 565 million people has seen little change since 2010. Sub-Saharan Africa now accounts for 85% of the global population without electricity, increasing from 50% in 2010.[1] Affordability remains a critical challenge, with almost 80% of unelectrified households unable to afford a Tier 1 Pay As You Go (PAYGo) plan.[2]

Malawi has one of the lowest rates of electrification worldwide at 26%.

The Mission 300 Compact sets an ambitious target to increase the national access rate to 70% by 2030, with 40% expected to come from off-grid technologies. For standalone solar systems to achieve this target, this would require connecting an additional 244,000 households per year.



While there has been strong growth in the sales of standalone solar products in Malawi, the current rate of progress will be insufficient to provide universal energy access.

As noted above, the target for 2030 is 70% - meaning around one in three households will not have access to electricity. Furthermore, to achieve the 70% target will require an increase in sales volumes, which will likely become harder as companies move to increasingly low income and costly to serve regions.

SolarAid's Light a Village pilot was launched in 2021 to test the Energy as a Service (EaaS) business model for first-time energy access, aiming to connect all households in Kasakula.

Kasakula is a traditional authority within Ntchisi District, about four hours' drive from Malawi, with low population density and low household income levels. While some PAYGo companies operate in the area, they reach only low levels of penetration, with access to solar energy kits near 0% prior to the launch of Light a Village. Between 2021 and 2025, SolarAid installed Tier 1 solar energy kits in all 8,813 households in Kasakula. Households pay a modest daily fee to use their system, tailored to their ability to pay, while SolarAid commits to long-term servicing to ensure customers have continued energy access.

This report assesses the experience so far of the Light a Village pilot with a mix of quantitative and qualitative evidence.

It uses quantitative data provided by SolarAid on customer payment trends, revenue generated, and cost per unit installed. The quantitative analysis is complemented with qualitative data from 16 stakeholder interviews and a site visit to Kasakula.

1. IEA, IRENA, UNSD, World Bank, WHO. (2025). Tracking SDG 7: The Energy Progress Report 2025. https://www.iea.org/reports/tracking-sdg7-the-energy-progress-report-2025.
2. Energy Sector Management Assistance Program (ESMAP). (2024). Off-Grid Solar Market Trends Report 2024. https://www.esmap.org/Off-Grid_Solar_Market_Trends_Report_2024.

KEY FINDINGS

SolarAid achieved its key objective, reaching 100% of households in Kasakula in 2025.

Over several waves of deployment since September 2021, all 8,813 households have been reached, supported by grant funding to bear the initial costs of importing and installing the solar energy kits.

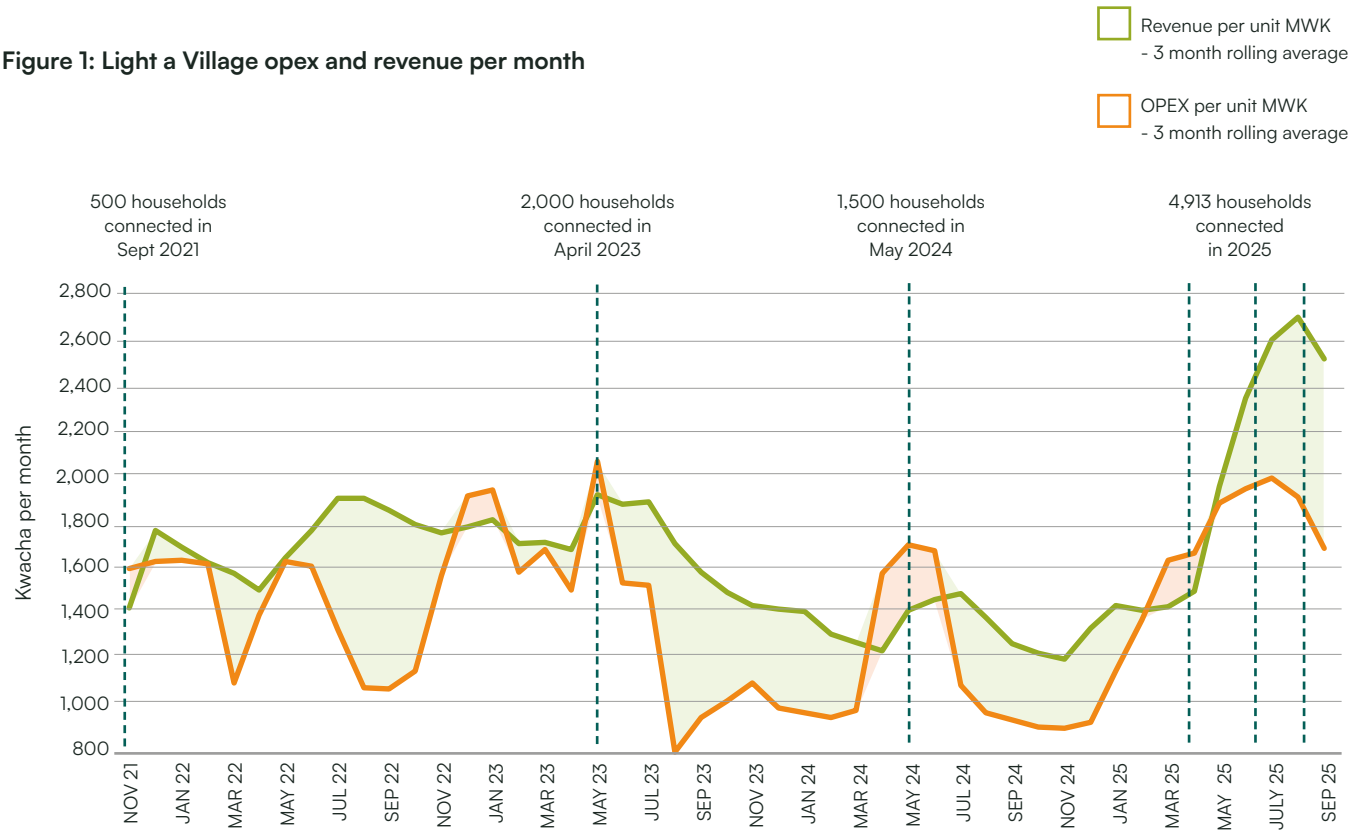
On average, households use their system around 70% of the year and generate MWK 19,000 (USD11) per year. All customers continue to use their system to some extent throughout the pilot, although there has been a decline in usage over time down from 85% in 2021 to 67% by April 2025. Recent operational changes have brought average usage rates back up to 85% between May and September 2025.

Operating costs (opex) fluctuate substantially, at an average of MWK 17,000 (USD9-10) per year. Opex per unit has varied significantly throughout the pilot, as SolarAid has experimented with different approaches across several phases. As shown in **Figure 1**, the red line for opex has significant spikes around the months where new batches of systems were installed (noting that capital costs of purchasing, shipping, and importing systems, as well as installation costs, are not included). Over the course of the pilot SolarAid experimented with higher levels of operating costs in the first phase (from the end of 2021 up to May 2023), before testing a lighter-touch operating model after May 2023. Building on the learnings from those phases the business model has been adjusted, and operating costs increased again in 2025 as new payment systems were introduced. It is notable that revenue per unit fell when opex was lower, as payment collection agents were less available to receive payments and activate systems, and has since increased following the changes made in 2025, with new payment systems improving customer usage and payment rates.

This leaves an operating margin of around USD2 per system per year[3]. Light a Village was fully grant-funded as a pilot and was not designed to test Energy as a Service as a (fully) commercial business model. An operating margin of USD2 would generate USD20 per system over a ten-year period, which is unlikely to be enough to cover repair, replacement, and e-waste management costs, which will rise over time. However, it should be noted that the pilot was implemented during a challenging macroeconomic period marked by significant local currency devaluation.

The revenue generated would not be enough to pay for the initial capital costs. The costs of purchasing shipping and importing systems amount to around USD50—65 per system, while the installation costs add around another USD4—8 per system. Neither of these costs are included in our analysis of operating costs described above. This effectively means Light a Village would need a full upfront grant of up to USD70 per system to cover the capex associated with acquiring systems and the cost of installation. It may also need a subsequent operating subsidy to ensure provision of repairs, maintenance, and e-waste management, depending on the usage rate and potential currency devaluation, which was significant during the pilot period.

Figure 1: Light a Village opex and revenue per month



A key advantage of the EaaS approach implemented by Light a Village (LaV) is that it provides permanent energy access. Ownership-based business models such as cash sales and PAYGo only provide access for as long as the warranty period of their system. For an entry level Tier 1 solar energy kit this would typically be just two — three years, although some systems can last longer (up to five — seven years). Under the EaaS approach, customers are, in principle, guaranteed permanent access, with the provider responsible for maintaining the systems and for sustainable e-waste management.

EaaS does need to increase costs to consumers to cover long-term maintenance and repairs, although this may pay off in the longer term if systems can be maintained cost-effectively. The monthly cost to a household under EaaS is lower than the PAYGo equivalent, but households are committed to paying indefinitely to continue to have access. In principle, a household can pay off its lease-to-own PAYGo system and continue using it free of charge for as long as it keeps working. A key proof of the EaaS concept will therefore be whether the later years — i.e. from years five -10 — can be done cost effectively, accounting for repairs, replacement and e-waste management costs. It is too early to assess this at this point for Light a Village, although the pilot has generated important lessons learned around system design and the need for example to have hardware of which component parts can be repaired without having to replace the entire system, in particular batteries which comprise a significant share of system costs and represent a high share of faults.

LaV is a grant-funded pilot designed to test, learn, and use data to inform the development of universal access interventions and, as such, cannot be directly compared to commercially funded business models - there are limited case studies with the same 100% sustained access objective to draw on. The LaV pilot has been fully grant-funded, with the cost of acquisition and installation of the energy kits paid for upfront by funders, with no financing costs that need to be repaid to shareholders or lenders. If EaaS at scale were to seek to raise external finance, the cost of such finance would have to be recovered from higher prices charged to customers. Given the high instability of the Malawi context, with substantial inflation and depreciation of the Kwacha relative to the US dollar, the cost of external finance over the longer time frame over which the EaaS business model seeks to recover its costs could be substantial.

The analysis of the EaaS pilot in this report supports four recommendations, which are broadly consistent with ongoing work by SolarAid and the Rural Energy Access Lab (REAL):

1. Increase awareness of the EaaS model and its value proposition to potential funders, and governments, with a roadmap to scaling up.

2. Gather robust unit cost data by key cost centres and track how these evolves, especially with respect to ongoing operating costs, and how repair, replacement, and e-waste costs evolve.

3. Experiment with pricing, when scale and time allows, and test how responsive usage and connection rates are, in order to ensure pricing strikes the right balance between fostering high adoption and usage, and limiting the subsidy requirement.

4. Continue to innovate with the system design, and explore more cost-effective systems over a ten-year period, for example with modular and replaceable systems, or longer lasting batteries.

Malawian community members standing beside solar panels.

Source: Efficiency for Access/Story Pro

Customer Brino Kambanizithe from Malambilo 1 village TA Kasakula, using his solar home system

Source: SolarAid/Kondwani Jere

1. INTRODUCTION

1. INTRODUCTION

This report reviews SolarAid's Light a Village (LaV) pilot of the Energy as a Service (EaaS) business model for first-time energy access in Malawi. It is an independent research study, commissioned by Energy Saving Trust and delivered by Greencroft Economics, that aims to build evidence on alternative business models for delivering first-time energy access in Sub-Saharan Africa. Energy as a Service is a relatively new business model for first-time electrification using standalone solar technologies, building on technological advances which have contributed to reduce equipment costs, remote activation and lockout systems, and digital payments.

The review was carried out around the mid-point of Light a Village's rollout, when the project had reached 4,076 household connections in Kasakula by the end of 2024. It is a mid-term review of the pilot, which has since reached one of its key objectives to serve all 8,813 households in the community by August 2025. This review focuses primarily on the 4,076 connections made between 2021 and the end of 2024. Households connected since January 2025 are too recent to draw conclusions on long-term utilisation, payment rates, or changes in unit operating costs.

It aims to support the development of the Energy as a Service model by programme managers, funders, and companies. It has two objectives: (1) to share findings from the Light a Village pilot, and (2) to provide recommendations on how SolarAid could enhance and scale up the pilot in Malawi and how SolarAid and others could develop the EaaS concept in Malawi and elsewhere.

The analysis answers five core evaluation questions (EQs):

EQ1:
How well does Light a Village respond to the needs of the target population?

EQ2:
How coherent is Light a Village with other energy access initiatives in Malawi?

EQ3:
To what extent has Light a Village been able to scale up and achieve its target connections effectively?

EQ4:
Does Light a Village offer better value for money compared to alternative energy access business models?

EQ5:
How sustainable is the Light a Village approach — what long-term sustained public subsidies will be needed?

The evaluation draws on a mix of quantitative and qualitative evidence to answer these EQs. It draws on customer payment data to provide insights into the penetration and usage of systems. It also draws on SolarAid's financial modelling for the Light a Village pilot to compare expected costs and revenues with the actual costs and revenues. The quantitative analysis is supported by insights from 16 stakeholder interviews and a site visit to Kasakula, carried out in May 2025.

Customer uses a sewing machine in her home

Source: SolarAid/Kondwani Jere.

The remainder of the report is structured as follows:

SECTION 2
frames the energy access situation, and potential of EaaS in Malawi.

SECTION 3
describes the Light a Village pilot and the context in Kasakula Traditional Authority.

SECTION 4
summarises the findings of this evaluation, organised by evaluation question (EQ).

SECTION 5
draws lessons learned from the pilot.

SECTION 6
makes recommendations for further development of the EaaS business model.

In August 2025, 100% of households in Kasakula, Ntchisi District, Malawi had solar home systems installed.

Source: SolarAid/Kondwani Jere

2. CONTEXT

2.1. Energy access in Malawi

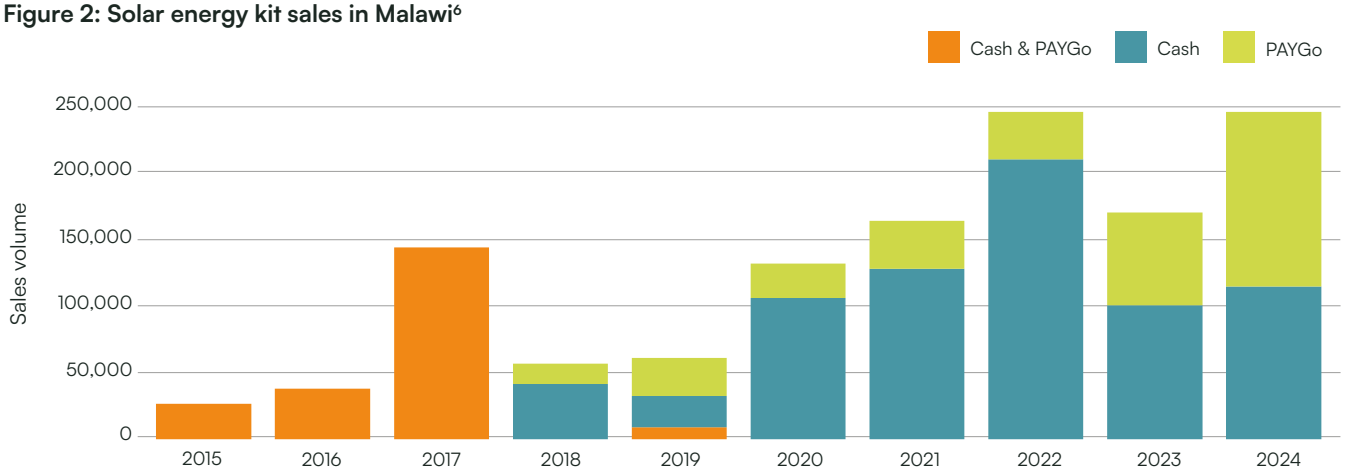
Malawi is one of the least electrified countries with only 26% of the population having access to electricity.[3] Of this, 11% is through the main electricity grid, and 15% through off-grid technologies. Energy access is lowest in rural settings, at just 20%, of which 4% through the national grid and 16% relying on off-grid solutions.

The Mission 300 Compact sets an ambitious target to increase national electrification to 70% by 2030, with 40% expected to come from off-grid technologies.[4] The remaining 30% is expected to be met by grid extension. For rural electrification, the Mission 300 Compact aims to achieve a 3% access rate through mini-grids, and 31% access through solar home systems by 2030.

For standalone solar systems to meet this target, an additional 244,000 households would need to be connected each year — a significant scale-up from current annual deployment rates. Sales of solar energy kits have risen steadily since 2016, peaking at just under 250,000 units in 2022 and 2024 **(Figure 2)**. Annual sales of just under 250,000 are insufficient to achieve the target of 244,000 new connections per year, since:

- **Not all sales represent new connections.** Some will be used by grid-connected customers, and there may be some stacking with households purchasing more than one standalone solar product.
- **Standalone solar units have a limited asset life.** The cash or PAYGo sales to date have a limited warranty period after which they would need to be replaced. As an illustrative calculation, to maintain all previous connections, and add an additional 244,000 new connections to meet the Mission 300 targets, would require sales of around 400,000 systems per year until 2030.[5]

Figure 2: Solar energy kit sales in Malawi[6]



The financing requirement to drive this growth in standalone solar is estimated at USD300 million.[7] Of this, USD91 million has already been committed, leaving a gap of USD209 million. The committed funding comes from projects supported by the World Bank, GIZ, the Netherlands, and Iceland. The government is also expecting to contribute USD1.5 million towards providing standalone solar solutions to 10,000 poorer households.

3. Mission 300 Africa. (2025). Malawi — National Energy Compact Cohort 1. https://mission300africa.org/energysummit/compacts_files/malawi-national-energy-compact/.
4. Ibid.
5. Using past GOGLA sales data gives the current number of live users of 800,000 households (assuming lifespan of a solar energy kit of five years and a replacement rate of 80%). The M300 targets connecting 244,000 households per year until 2030, which implies a total of 2.5 million households connected. To connect 244,000 households per year, annual sales need to be around 450,000 to take into account broken and replaced systems.
6. Greencroft Economics analysis based on GOGLA semi-annual sales data (https://gogla.org/reports/semi-annual-solar-market-report/january-june-2025-gogla-sales-data/). Cash and PAYGo data not tracked separately for 2015-2017, and not available for the first half year of 2019 for Malawi.
7. Mission 300 Africa. (2025). Malawi — National Energy Compact Cohort 1. https://mission300africa.org/energysummit/compacts_files/malawi-national-energy-compact/.

Several major energy access initiatives have been introduced in Malawi including:

The Ngwee Ngwee Ngwee Fund (NNNF), a government-led energy access fund established with support from the World Bank in 2023. In the first phase, over 250,000 households were connected with USD20 million funding, exceeding the target of 200,000 in just 13 months.[8] This fund is part of the broader Malawi Energy Access Project (MEAP).

The World Bank's Accelerating Sustainable and Clean Energy Access Transformation (ASCENT) which has a USD60 million component for off-grid solar connections. The component is expected to connect 811,000 households (3.4 million people),[9] implemented through the Ngwee Ngwee Ngwee Fund.

GIZ/EnDev's USD5 million demand-side subsidies programme from 2022 to 2025, which offers end-user subsidies through cash transfers and vouchers, or results-based financing (RBF), and aims to increase energy access for 200,000 people.[10]

USAID's SHS KickStarter programme, from 2019 to 2021, which aimed to catalyse the off-grid solar market, through a USD1.5 Million RBF grant facility, improving access to working capital, an awareness campaign, and policy and reformatory reform initiatives.[11]

Energy and Environment Partnership (EEP) Africa has supported seven standalone solar companies in Malawi with early-stage catalytic grant financing of around USD300,000 each. Three of these companies are solar home system providers.[12]

8. Malawi Ngwee Ngwee Ngwee Fund. (2025). https://www.linkedin.com/company/malawi-off-grid-market-development-fund/posts/.
9. World Bank. (2024). Malawi - Accelerating Sustainable and Clean Energy Access Transformation in Malawi Project. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099122024103086664/p502464163f7e3011b825182b8fdc39fa7.
10. EnDev. (2023). Malawi: Enabling Energy Access through Demand-Side Subsidies (DSS). https://endev.info/wp-content/uploads/2023/11/231023_EnDev-DSS-Factsheet_Malawi.pdf.
11. African Power Platform. (2025). Grants: USAID-Power Africa Solar Home System (SHS) Kick-Starter Program for Malawi. https://www.africanpowerplatform.org/financing/grants/1002-usaid-power-africa-solar-home-system-shs-kick-starter-program-for-malawi.html.
12. EEP Africa. (2025). Portfolio. https://eepafrica.org/portfolio.

2.2. The role of Energy as a Service in Malawi

It is widely acknowledged that the PAYGo business model is limited in its ability to reach the poorest and hardest-to-reach communities. The latest Off-Grid Solar Market Trends Report estimates that 80% of unconnected households would be unable to afford a Tier 1 solar energy kit even with PAYGo. This percentage would be higher for the most remote areas.[13]

The prevalent energy access business models and financing mechanisms may not be well suited to reach communities where cost to serve is high and ability to pay is low. The most widely available at present are direct cash sales and various PAYGo structures including flexible or seasonal repayment plans, community-based savings schemes, and longer-term consumer finance.[14,15] Mini-grids and grid extension are possible alternatives[16], although in the case of the latter it is not technically feasible in the near-term, as electricity transmission and distribution grids cannot be expanded quickly (and/or it would be prohibitively expensive to do so). These business models have generally not proven viable in hard-to-reach and low ability to pay settings, even when combined with results-based finance and other forms of subsidies.

Energy as a Service offers an alternative to provide first-time energy access in hard-to-reach communities. Instead of lease-to-own systems, EaaS proposes entry-level (Tier 1) energy access on a fee for service basis, at a low monthly fee. The customer pays to access their solar energy kit and its services (lighting, phone charging) and only pays when they activate their system. They never own the assets and continue to pay indefinitely in return for a commitment from the provider to ensure systems are repaired or replaced to maintain service levels.

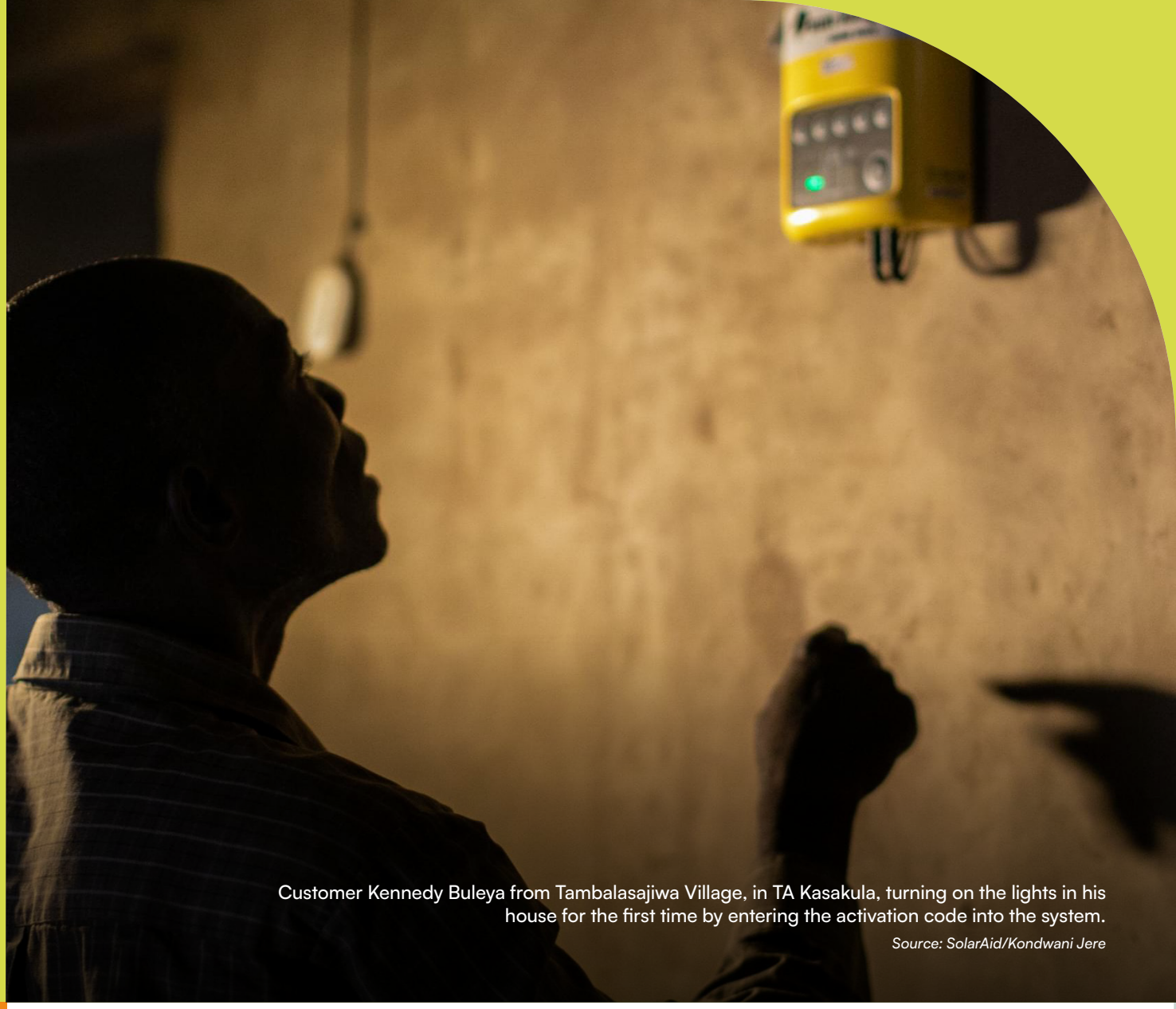
The EaaS concept relies on being able to offer lower monthly fees to customers compared to lease-to-own systems.

This may be possible by:

- Spreading payments over a longer period.
- Lower unit costs associated with economies of scale by serving all (or nearly all) households in a community.
- Reducing costly consumer finance and working capital financing requirements.
- Efficient use of public subsidies targeted to these low-income and hard-to-reach customers.

Initial estimates have shown EaaS could amount to a monthly cost of USD2-4 per customer, compared to a PAYGo equivalent of USD8.50.[17,18] However, EaaS generates revenue more slowly over a longer period. If financed through equity or debt, this would mean capital remains outstanding for many years, accumulating the cost of equity or interest on debt. It also requires long-term after-sales services at an additional cost.

13. Energy Sector Management Assistance Program (ESMAP). (2024). Off-Grid Solar Market Trends Report 2024. https://www.esmap.org/Off-Grid_Solar_Market_Trends_Report_2024.
14. Energy Saving Trust. (2023). The Road to Zero Interest: The Potential Role of Concessional Consumer Financing in Energy Access. https://energysavingtrust.org.uk/report/concessional-consumer-financing-in-energy-access/.
15. Practical Action. (2023). Can Market Mechanisms Facilitate Energy Access for People Living in Extreme Poverty? Part 2 — The Role of Market Interventions and Business Models. https://practicalaction.org/learning/knowledge-centre/energy-and-extreme-poverty/
16.IRENA. (2020). Energy as a Service: Innovation Landscape Brief. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Jul/IRENA_Energy-as-a-Service_2020.pdf.
17. Ibid.
18. GET.invest. (2024). Decentralised Rural Infrastructure: Energy as a Service Approach in the Context of Universal Access in Sub-Saharan Africa. https://www.get-invest.eu/wp-content/uploads/2024/11/GET.invest_Decentralised-Rural-Infrastructure_EAAS-_202410-6.pdf.



Customer Kennedy Buleya from Tambalasajiwa Village, in TA Kasakula, turning on the lights in his house for the first time by entering the activation code into the system.

Source: SolarAid/Kondwani Jere

3. SOLARAID'S LIGHT A VILLAGE PILOT

Since 2021, SolarAid has rolled out its Light a Village pilot in Kasakula, a rural town in Ntchisi district, reaching 4,076 connections by the end of 2024.

Systems were deployed in three phases.

Phase 1 connected 500 households in 2021, and a further 76 schools and homes of teachers in 2022.

Phase 2 connected a further 2,000 in 2023.

Phase 3 connected 1,500 households in 2024.

Before installation, SolarAid gathered the village and explained the EaaS concept, as well as the PAYGo and cash over-the-counter alternatives. Households can then choose to sign-up for an EaaS plan or purchase their system outright.

ALL 8,813 HOUSEHOLDS IN THE COMMUNITY REACHED IN AUGUST 2025

The ultimate objective to reach all 8,813 households in the community was achieved in August 2025.[19] Given the recent completion of its rollout, this review focused primarily on the 4,076 systems deployed up to the end of 2024, and does not reflect more recent experience, with the pilot now operating at double the scale.

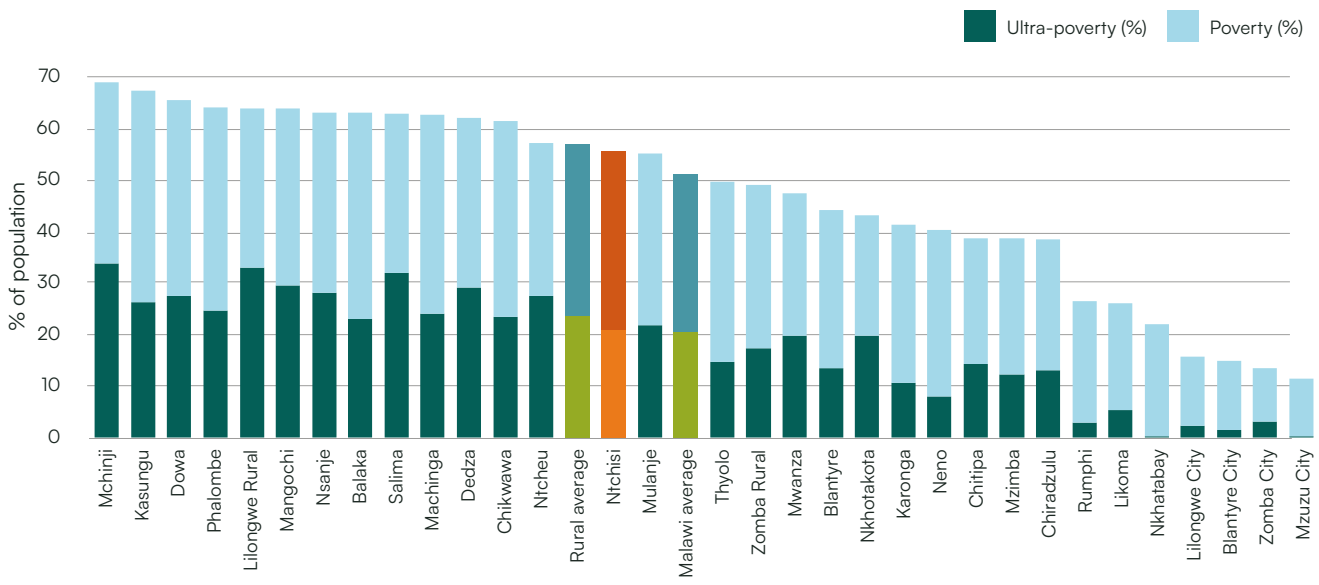
19. SolarAid. (2025). Energy-as-a-Service. https://solar-aid.org/bright-solutions/our-programmes/energy-as-a-service-light-a-village/#lav.

3.1. Ntchisi and Kasakula's energy access context

Kasakula was selected for the pilot to test the EaaS business model in a hard-to-reach and high poverty context, as requested by the Malawian Government. Kasakula is one of the seven Traditional Authorities (TA) in Ntchisi district, 90 kilometres from the capital Lilongwe. It is a four-hour drive from Lilongwe, with limited infrastructure access. While the electricity grid reaches Ntchisi district, there are virtually no households connected to the grid in Kasakula, although some market-place buildings are connected to the national grid.[20] The national grid operator (ESCOM) is not planning on extending the grid beyond that in the coming five to ten years.[21]

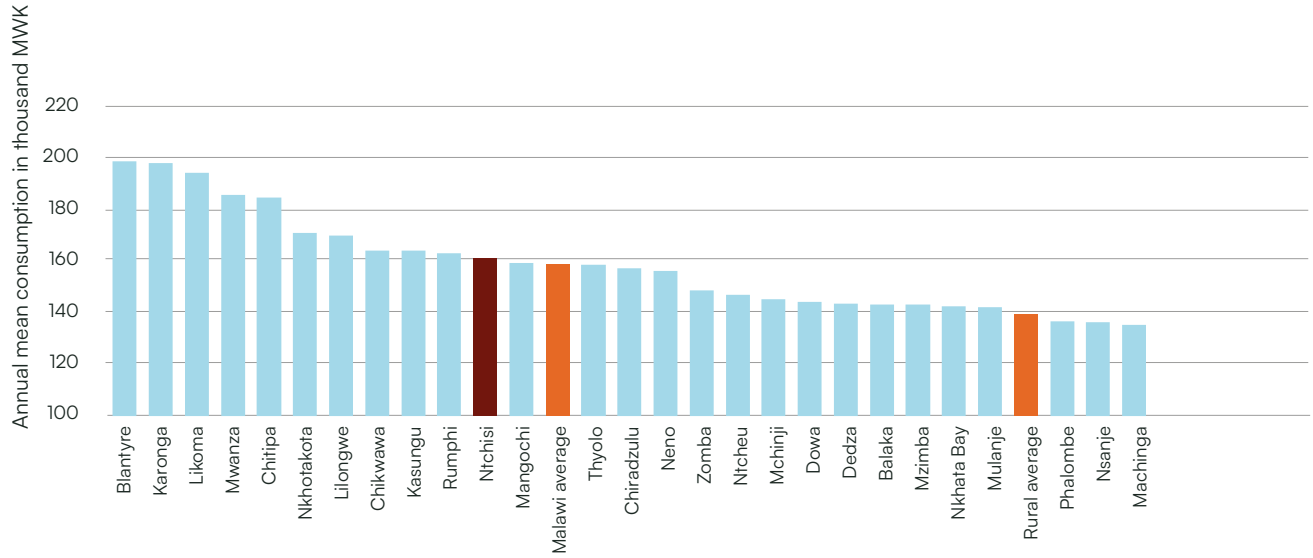
While Ntchisi district is in line with national poverty levels, Kasakula is poorer, with 97% of the population living below the poverty line.[22,23,24] Over half of Ntchisi's population lives in poverty, of which 20% in ultra-poverty[25] — a rate which is in line with the national average **(Figure 3)**. Annual consumption per person is MWK 162,000 (USD220);[26,27] slightly above the nationwide average **(Figure 4).**[28] However, Kasakula is significantly poorer — SolarAid estimates that only 5% could afford an entry-level standalone solar system under the PAYGo model **(see Box 1 for further information)**. The district's major source of income is farming, and only a small proportion of households are salaried.[29]

Figure 3: (Ultra-) poverty levels by district in 2020[29]



20. Next Energy Foundation. (2023). SolarAid: Light a Village Programme Update. https://www.nextenergyfoundation.org/news/solar-aid-light-a-village-programme-update/.
21. According to consultations with SolarAid.
22. Next Energy Foundation. (2023). SolarAid: Light a Village Programme Update. https://www.nextenergyfoundation.org/news/solar-aid-light-a-village-programme-update/.
23. In the Malawi Poverty Report the poverty line is the cost of meeting basic nutritional needs — the food poverty line — and the allowance for other basic needs — the non-food poverty line. If a person's total expenditure is below the poverty line, the person is considered poor; an individual with consumption below the food poverty line is considered ultra-poor.
24. Government of Malawi. (2021). Malawi Poverty Report 2020. https://microdata.worldbank.org/index.php/catalog/3818/data-dictionary.
25. The total poverty line is the cost meeting basic nutritional needs (that is, food poverty line) and then allowance for other basic needs (that is, the nonfood poverty line). If a person's total expenditure is below the poverty line, the person is considered poor. An individual with consumption below the food poverty line is considered ultra-poor. Reference: Government of Malawi. (2021). Malawi Poverty Report 2020. https://microdata.worldbank.org/index.php/catalog/3818/download/51154.
26. A note on exchange rates — there has been significant fluctuation in US$: MWK exchange rates between 2020 and 2025. Unless otherwise stated, a 2025 average exchange of 1,734 Kwacha per USD is used.
27. Converted into USD using the average exchange rate from the year in which the data was collected (2020).
28. Government of Malawi. (2021). Malawi Poverty Report 2020. https://microdata.worldbank.org/index.php/catalog/3818/data-dictionary.
29. Government of Malawi. (2020). "Ntchisi District Council Socio-Economic Profile 2017-2022. https://global-uploads.webflow.com/6061a9d807f5368139d1c52c/610b2a13e394806a5d401805_Ntchisi-District-Council-Socio-Economic-Profile-2017-2022.pdf.
30. Greencroft Economics analysis based on Government of Malawi. (2021). Malawi Poverty Report 2020.

Figure 4: Annual mean consumption per district in 2020[31]

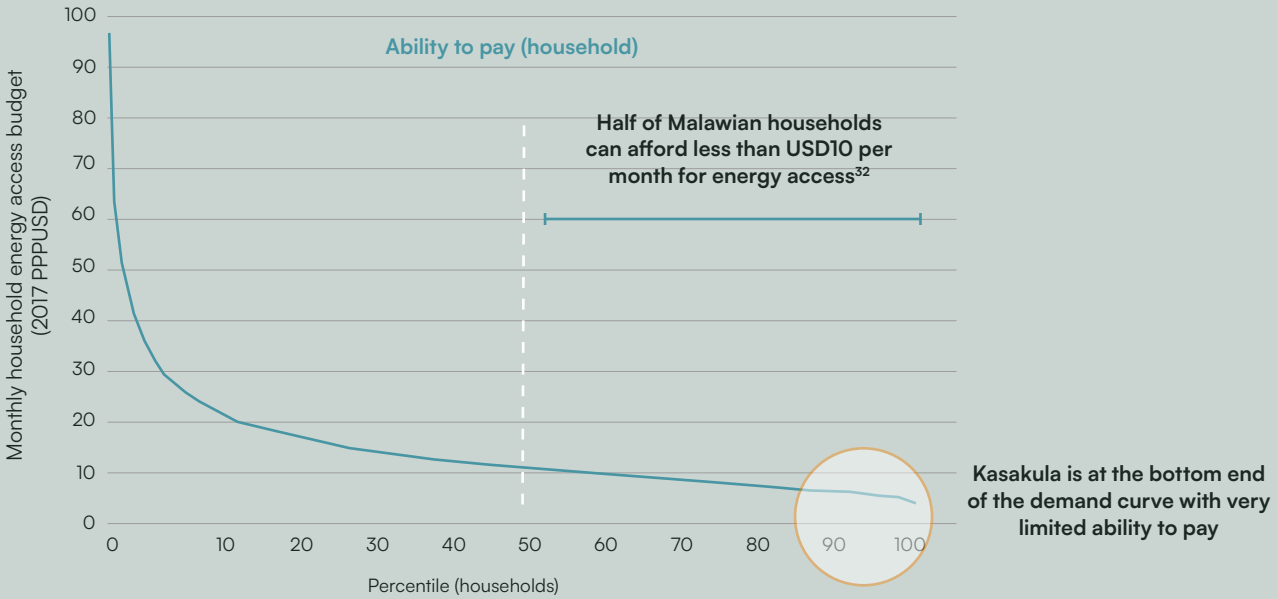


BOX 1: ABILITY TO PAY FOR ENERGY ACCESS IN RURAL MALAWI AND IN KASAKULA

Many Malawian households will have very limited ability to pay for energy access products. The figure below estimates a demand curve for Malawian households and suggests that if allocating 5% of consumption expenditure to energy access, half of the population would be able to pay less than USD10 per month. This makes entry-level systems beyond the reach of most Malawians, even with the PAYGo business model.

The population of Kasakula is at the bottom end of this demand curve, with very limited ability to pay. SolarAid customer surveys carried out in 2022 and 2024 suggest that the monthly average income is USD23.50, of which an allocation of 5% to energy access would imply just USD1.20 per month. 97% of households have income below the extreme poverty threshold of USD2.15 per day (although it should be noted this is comparing an estimate of income to a poverty threshold which is based on value of consumption).

Income for Kasakula's households is highly seasonal and volatile. Over 90% of households surveyed reported either farming or casual labour as their main source of income, with income heavily concentrated between April and July.

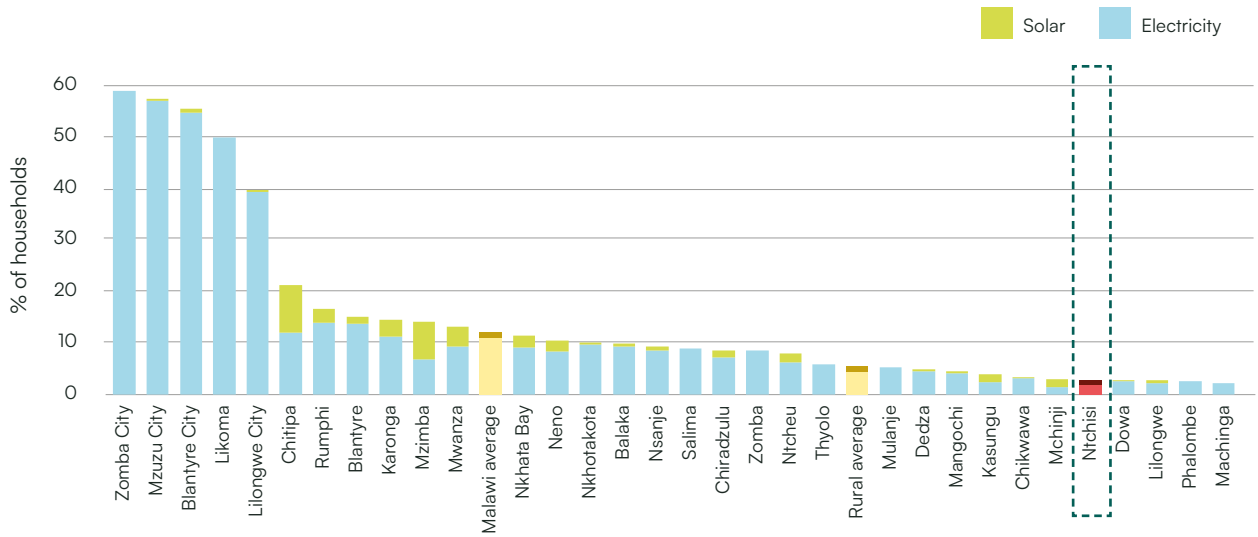


31. Ibid.
32. World Bank. (2025). Poverty and Inequality Platform. https://pip.worldbank.org/.

In Kasakula, access to electricity prior to Light a Village was very low — close to 0%. In Ntchisi District, access to the electricity grid or standalone solar is 19%,[33]although two recent reports give quite different estimates. The Population Census (2018) puts Ntchisi at 4% of households with grid electricity and 15% standalone solar.[34] Meanwhile, the Integrated Household Survey (2020) shows that just 2% of households having grid electricity and 1% standalone solar.[35] The 2018 Population Census also breaks down access by Traditional Authority, showing Kasakula with 1% electricity access and 14% standalone solar. However, SolarAid's experience and our site visit suggest that actual standalone solar penetration before LaV was low. Stakeholder consultations indicate some presence of PAYGo companies in Kasakula (e.g. Yellow and Zuwa Energy), but their penetration rate is unknown.

Ntchisi has a population density close to the Malawi average, while Kasakula is much less densely populated. Ntchisi has a population density of 185 people per square kilometre, equal to the average Malawian population density. Kasakula is one of the smallest TAs in Ntchisi, comprising just 20,000 people, across 4,500 households, and is the TA with the lowest population density at 114 people per square kilometre.[36, 37] As a point of comparison, the population in urban settlements such as Lilongwe and Blantyre is 990,000 and 800,000 respectively, with a density of around 3,000 people per square kilometre.[38]

Figure 5: Proportion of households using electricity or solar per district in 2020[39]



33. Government of Malawi. (2018). 2018 Malawi Population & Housing Census: Preliminary Report. https://malawi.unfpa.org/sites/default/files/resource-pdf/2018%20Census%20Preliminary%20Report.pdf.
34. Ibid.
35. World Bank. (2020). Malawi: Fifth Integrated Household Survey 2019-2020. https://microdata.worldbank.org/index.php/catalog/3818/data-dictionary.
36. Government of Malawi. (2018). 2018 Malawi Population & Housing Census: Ntchisi District Report. https://www.nsomalawi.mw/census/2018.
37. Government of Malawi. (2018). 2018 Malawi Population & Housing Census: Preliminary Report. https://malawi.unfpa.org/sites/default/files/resource-pdf/2018%20Census%20Preliminary%20Report.pdf.
38. Ibid.
39. Greencroft Economics analysis based on Government of Malawi. (2021). Malawi Poverty Report 2020. https://microdata.worldbank.org/index.php/catalog/3818/data-dictionary.

Community member repositions solar panels for Wala's research and development project, Malawi.

Source: Efficiency for Access

3.2. The Light a Village Pilot

The Light a Village pilot deployed Tier 1 multi-light and appliance charging solar kits. Initially, LaV deployed Sun King 11-Watt peak solar home systems. This started with the SK60, which reached 14% of the 4,076 households by the end of 2024, followed by the 200X model, reaching 49% of households. In 2024, LaV switched to LUMN SHS40 (12-Watt peak) systems, which accounted for the remaining 37% of the 4,076 households.[40] The switch was made based on price and suitability for the long-term EaaS approach, which required long-term system longevity and modular repairability. In particular, this requires systems in which key components, especially batteries, can be easily repaired or replaced without needing to replace the entire unit, supported by long-term spare-parts commitments from upstream suppliers. Customers do not have a choice of systems, nor the possibility to upgrade.

To access their system, customers have to make a pre-payment of MWK 100 (USD0.06) per day. Prior to April 1st 2025, the daily fee was MWK 70 (USD0.04). Customers can pay when they want, at any amount — there is no fixed payment frequency or amount. This creates an incentive for SolarAid to deliver good service, as they want customers to continue paying. In the first phases of the project, customers made payments via cash to local agents or at fixed points of sale. Since May 2025, payments can also be made through mobile phones. This is in line with mobile penetration within the community, which has increased from 35% in 2021 to 60% in 2024. This type of payment can significantly reduce SolarAid's operational cost.

40. VeraSol. (2025). Product Database for Sun King and LUMN. https://verasol.org/database/.

Installation of the solar home system in customer Kennedy Buleya's house, Kasakula.

Source: SolarAid/Konwdani Jer

4. FINDINGS

4.1. How well does Light a Village respond to the needs of the target population for energy access provision?

The low usage fee and only nominal connection fee is essential to achieve a high penetration rate in Kasakula. The daily usage price of MWK 100 (USD0.06) would equate to around 5% of the annual household consumption in Ntchisi district if the system was used every day of the year.[41,42] This suggests that the Light a Village pricing would be affordable for the average household in Ntchisi, especially as households may not in practice pay to activate their system every day.[43] As noted in **Section 3.1**, Kasakula is one of the poorest TAs in Ntchisi, and household consumption is much lower than the district average. SolarAid's surveys estimate this at MWK 40,000 (USD23)[44] per month. At this level, the MWK 100 (USD0.06) fee would represent around 8% of monthly expenditure, which is a stretch but still just about affordable. With an average utilisation of around 70%, this would then correspond to Kasakula households allocating around 5% of monthly expenditure to their energy access product.

Light a Village has been able to achieve both high penetration and reasonably high usage (discussed further in Section 4.3). Without LaV, most households in Kasakula would still lack access to basic energy access. This validates the potential value of business model innovation in poorer and harder to reach areas, where PAYGo and cash sales have not penetrated. However, as discussed in **Section 4.4 and Section 4.5**, the key question is whether it is the Energy as a Service model itself that makes this possible, or a high(er) degree of subsidisation.

In Malawi where electrification is at just 26%, EaaS could be an effective way to serving the poorest and hardest-to-reach at scale. The key question remains whether EaaS is inherently a better business model to reach these communities, or whether with a similar level of subsidisation of other business models could achieve similar, or even better, results.

> "Energy as a Service is a big game changer; many people need access, and EaaS focuses on access, not on ownership."
>
> **[OFF-GRID SOLAR PROVIDER]**

> "We are testing the furthest we can go in the most challenging areas and the poorest end-users, in order to develop a sustainable model that can be scaled up into every other area."
>
> **[BRAVE MHONIE — SOLARAID MALAWI GENERAL MANAGER]**

41. The annual per capita consumption in Ntchisi was MWK 162,000 in 2020, which equates to MWK 750,000 per household, at an average household size of 4.6. Comparing this to MWK 36,500 to use an EaaS system at MWK 100 each day of the year is 5% of consumption expenditure.
42. World Bank. (2020). Malawi: Fifth Integrated Household Survey 2019-2020. https://microdata.worldbank.org/index.php/catalog/3818/data-dictionary.
43. Energy Sector Management Assistance Program (ESMAP). (2024). Affordability of Off-Grid Solar. https://mtr.esmap.org/chapter-03-affordability-of-OGS.
44. Converted using the average exchange rate in the year in which the data was collected — 2024.

In the context of a community like Kasakula, the risk of over-subsidising some customers is low. As shown in **Section 3.1**, the income levels of households in Kasakula are reasonably consistent and there is not likely to be a significant proportion of the population with much higher ability to pay than others. The EaaS approach may also help reduce the risk of 'leakage', where systems are sold but end up being used outside the target community. This is due to the high penetration of systems within a single community, the need for frequent payments to activate the system, and the advantage for customers of being close to SolarAid, which maintains functionality only for systems installed within the intended community.

There may be advantages to bulk procurement if EaaS were scaled up further, but this has not yet been demonstrated. SolarAid has been able to deploy systems relatively quickly once funding was available. It could be that there are upstream economies of scale associated with bulk importation of systems and warehousing logistics, but this has not been demonstrated given the phased approach of the LaV pilot linked to funding availability. It has also not been tested whether an organisation can manage the logistics of a rapid rollout at scale — although SolarAid has deployed 4,737 units so far in 2025. As discussed in **Section 4.2**, this remains on a relatively small scale.

4.2. How coherent is Light a Village with other energy access initiatives in Malawi?

The Light a Village project is closely aligned with Malawi's energy access objectives — although is currently a small-scale contribution. It has been able to scale up the number of household connections, although at 8,813 in total over four years, this is only a fraction (4%) of annual sales of standalone solar systems in Malawi by GOGLA affiliates[45].

The focus on the poorest and hard-to-reach customers may go further than the energy access target to reach 70% of the population by 2030. With current access rates at 26%, if the 70% is to be reached it is likely that it will be achieved by connecting peri-urban and relatively easier-to-reach rural areas. This may mean that a scale up of the Light a Village EaaS approach goes further and reaches populations that would otherwise not be reached before 2030.

> "EaaS is better to reach masses with speed and those at the base of the pyramid but financing question will need to be answered for private sector players."
>
> **[OFF-GRID SOLAR PROVIDER]**

> "EaaS is key in increasing access to energy especially to rural low-income households which can accelerate the achievement of universal energy access."
>
> **[DEVELOPMENT PARTNER]**

> "Energy as a Service provides a short-term solution for hard-to-reach areas while they wait for the grid."
>
> **[DEVELOPMENT PARTNER]**

45. GOGLA. (2025). Semi Annual Global Off-Grid Solar Market Reports. https://gogla.org/reports/semi-annual-solar-market-report/january-june-2025-gogla-sales-data/.

Previous energy access programmes have not placed the same level of emphasis on reaching the poorest or hardest-to-reach communities. In general, the Ngwee Ngwee Ngwee Fund did not prioritise reaching this type of customer base, and is unlikely to do so in the medium-term, with its RBF based on households reached and not conditional on household income. However, NNNF did allocate some funding to a "market innovation fund", which contributed to the Light a Village pilot. EnDev's demand side subsidy (DSS) programme does target poorer households, with subsidies weighted 80-20 to "poorer" rather than "poorest" households, with a higher per unit subsidy allocated to the "poorest" households (up to USD150 and USD180 per system respectively).

There seems to be a consensus that EaaS can coexist with other business models in Malawi. Most stakeholders expressed limited concern that EaaS could cause market distortion, as: (1) PAYGo companies can compete by offering a higher tier service, and (2) EaaS can focus on communities with very low penetration of the more commercial business models. There was consensus that to reach the ultra-poor, in the hardest-to-reach locations, business models like EaaS will be needed alongside more commercial approaches such as PAYGo and cash sales.

EaaS can provide energy access where mini-grids face affordability and technical challenges. While the Ministry of Energy has championed mini grids in rural areas, these face challenges around financing and high operational costs. Mini grids require a robust financial model to ensure sustainability which includes connection fees and tariffs that balance affordability and revenue generation requirements. The EaaS model has a similar structure, but at much lower cost, potentially able to remain affordable (calibrated to the energy budgets of rural populations) while also generating the revenue it needs.

> "Even in the EaaS / LaV community you can sell PAYGO SHS to those who are interested and since the system differs from the basic SHS via LaV it's easier to explain the price difference."
>
> **[OFF-GRID SOLAR PROVIDER]**

> "The market in Malawi is so big that we are not too worried about market distortion."
>
> **[GOVERNMENT AGENCY]**

> "To reach universal energy access, you need complementary models and we see EaaS and PAYGO as complementary and not necessarily competing business models."
>
> **[OFF-GRID SOLAR PROVIDER]**

4.3. To what extent has Light a Village been able to scale up and achieve its target connections effectively?

This section focuses on usage and payment data between September 2021 and the 6th May 2025, although with an important recent update on major changes to payment patterns in the second half of 2025 provided in Box 3. As noted in the Introduction, the initial scope of this study was to evaluate the performance of the Light a Village pilot between September 2021 and early 2025, using the data available when this assignment commenced. However, there has been a significant change in customer payment patterns in 2025 since SolarAid has transitioned customers onto a self-service mobile payment platform from May 2025 on. While this data is too recent to analyse the long-term effects of the change in payment modality, it is presented at the end of this section for balance and to highlight the potential to learn, optimise, and improve payment rates through pilots such as Light a Village.

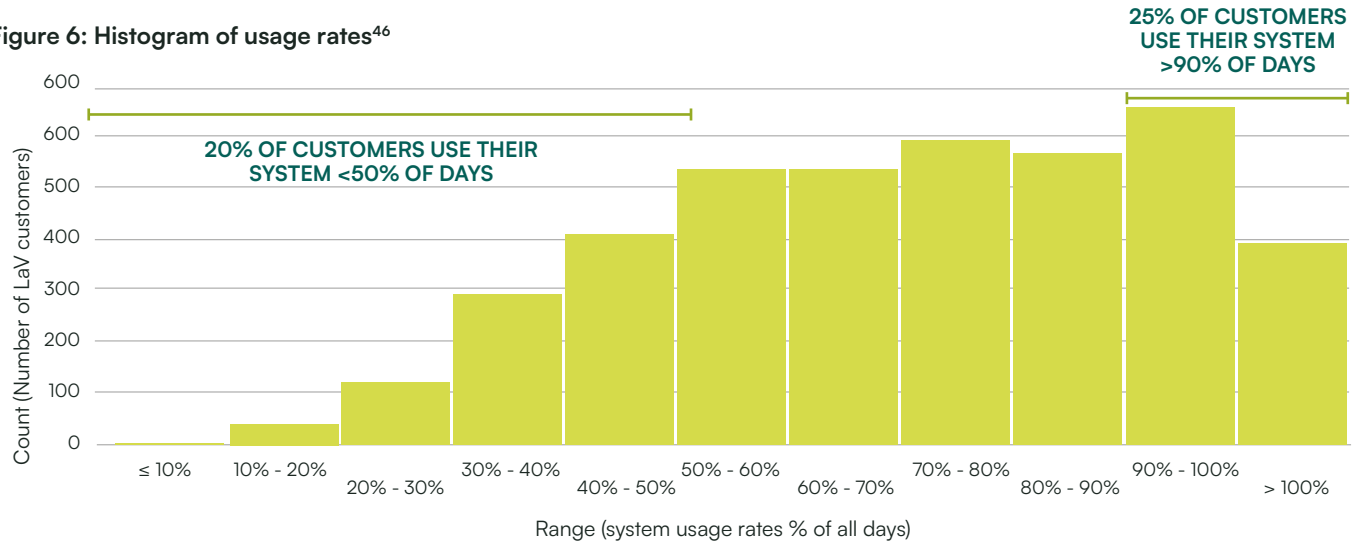
4.3.1. Payment and usage rates of systems

Light a Village initially had a slow scale-up, as it depended on receiving upfront non-reimbursable funding to deploy systems. By early 2025, the pilot had reached 4,076 systems deployed, still under 50% of the overall target of 8,813 households. This was partly to allow for a phased implementation of the pilot, and was partly driven by the need to raise funding for each wave of systems deployed. LaV has been funded by upfront non-reimbursable grants, which are scarce and often not available at the scale required. Other business models, such as PAYGo, have been able to raise finance upfront on the promise of repaying that capital (debt and equity) with a rate of return. These models have typically served only a proportion of the population who could afford it, rather than serving entire communities.

The pilot has recently reached all 8,813 households in the community, showing it can achieve 100% penetration rates. This is in contrast with other standalone solar business models, and demonstrates that it is possible to connect entire communities. In the case of Light a Village, there is no real incentive for a household to decline having a system installed, as there are no connection fees and no obligation to use (and pay for) the system.

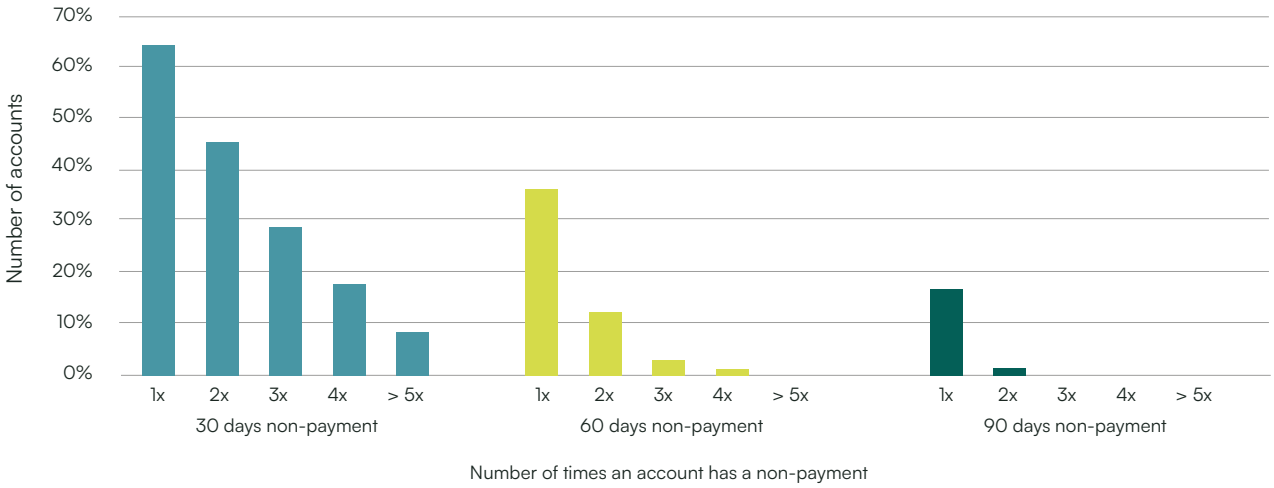
The average utilisation rate is around 70% per household; for three out of every ten days, the average household is not paying to use their system. This is unevenly distributed, with a quarter of households using their system more than 90% of the time, while there is a long tail of lower usage and one-in-five households using their system less than half of the time (Figure 6). We do not have information on the reasons why some customers use their system only infrequently. It is possible this may be driven by faulty systems which have had defective batteries and have taken time to repair. It may also be related to the time taken to activate systems with manual payments via sales agents — with more recent data suggesting that utilisation has increased substantially since a mobile-payment self-service interface was rolled out in May 2025 **(Box 3)**.

Figure 6: Histogram of usage rates[46]



46. Greencroft Economics based on SolarAid Light a Village customer data. Usage rate above 100% indicates that households have made payments for more days than they are connected for.

Figure 7: Number of times accounts have a non-payment period of 30/60/90 days[47]



Most Light a Village customers at some point go at least a month without using their system. As shown in **Figure 7**, two-thirds of customers at some point did not make a payment to use their system for 30 days or more, while 45% have done so on more than one occasion. One third of customers has gone 60 days or more without paying to use their system, and 15% of customers have not made a payment to use their system for 90 days at least once. As shown in **Box 3**, payment patterns have evolved significantly since a new mobile-payment interface was rolled out in May 2025, with each household now making on average three (smaller) payments per month, compared to 1.5 payments per month previously. Prior to May 2025, the majority (80%) of users made two payments or less per month, while the remainder (20%) made two to five payments per month on average.

All customers continue to use their system, although usage rates have declined from over 80% when first connected to under 70%. By the end of April 2025, 98% of customers have made at least one payment since January 2025, which shows that LaV customers continue to value and make use of their product. Nonetheless, the average usage rate per customer dropped from an average of 85% in 2021 (from September to December) to 67% in 2025 up to the end of April **(Figure 8)**.

The batch of school connections have a much higher usage rate of 88% than the household connections 67% on average as of May 2025. The 76 connections in the 2022 cohort, which are to electrify schools and teachers' homes, were at 94% usage rates in 2022 and back up to 88% by May 2025. This could perhaps be explained by the fact that schools, or institutions in general, have a higher ability to pay than a single household, or are serving a wider number of users at the same cost.

> "The biggest advantage is the complete "Light a Village" concept, that includes lighting for school which has the longer-term impacts of improved education, the improved daily operations of clinics through lighting and freezers, the improved security and increased entrepreneurial activities. This impact goes way beyond lighting in the homes."
>
> **[DEVELOPMENT PARTNER]**

47. Greencroft Economics based on SolarAid Light a Village customer data.

Household usage has dropped over time — for the 2021 cohort down to 72% by May 2025, and to 69% and 62% for the 2023 and 2024 cohorts respectively. This shows two important trends: first, that payment and usage fall over time, and second, that the later cohorts connected have lower payment rates than earlier cohorts. This may reflect that the earlier connected customers tend naturally to be slightly higher ability to pay (either by self-selection, or by proximity to the community centre), so that as penetration increases, the usage rate of new users is lower than those already connected. It may also reflect a phase in the pilot where opex per unit was (intentionally) lower to stress test the model, with the result that customers waited longer to be able to (pay for and) activate their systems as customer service agents were overstretched.

Figure 8: Average usage rate per year per registration group (% days paid versus all days)[48]

4.3.2. Revenue generation

As the average usage rate drops, so does the average payment amount. At the start of the pilot, users paid on average around MWK 1,700 (USD0.98) per month, falling to MWK 1,500 (USD0.87) per month by April 2025. In the period from September 2021 to March 2023, utilisation was at 80% and MWK 18 million (USD19,000)[49] was collected. Between March 2023 and March 2024, utilisation was down to 73%, with MWK 48 million (USD 42,000)[50]collected. Since March 2024, utilisation has dropped to 60%, with MWK 78 million (USD 45,000))[51] collected. While the price per day was initially MWK 70 (USD0.04), this has been increased to MWK 100 (USD0.06) since April 2025 (a 43% increase).

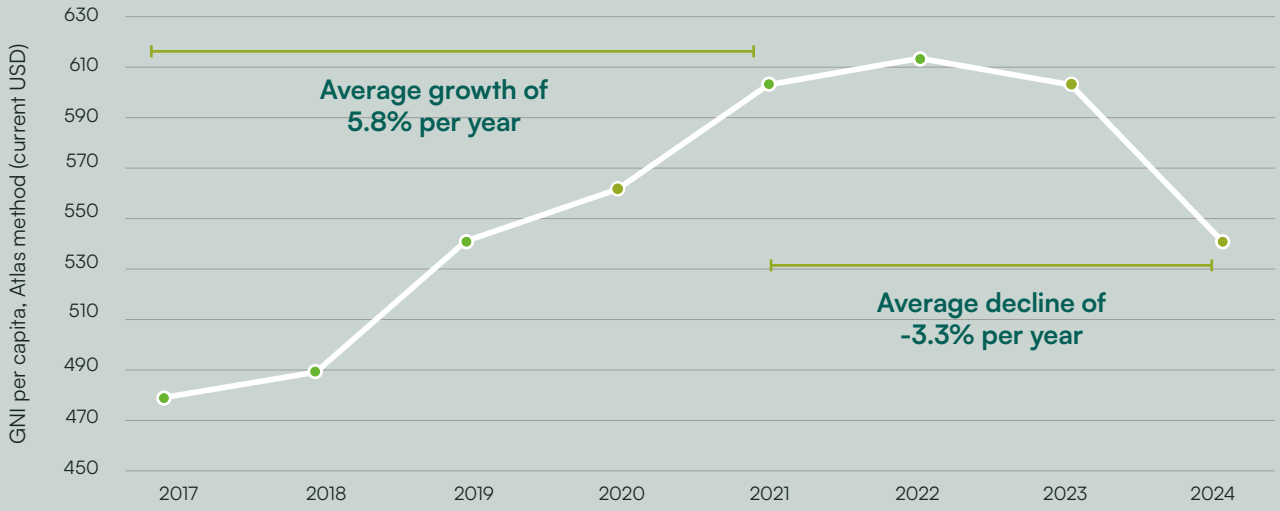
The usage rate is likely to have been influenced by various factors, including project-specific decisions as well as external macroeconomic factors. There has been a worsening in economic conditions in Malawi, which may have affected ability to pay **(see Box 2)**. There have also been issues with defective systems that have taken time to repair or replace. Furthermore, as SolarAid experimented in 2023 with a relatively light workforce of agents serving a large number of customers, some households may have wanted to pay and activate their system, but agents were slow to reach them. It is also possible that over time there is a level of attrition in the willingness to pay on a regular basis of users.

Revenue generated per unit averages just over MWK 50 (USD0.03) per day, amounting to MWK 19,000 per year (USD11). This is compared to unit costs below, to give an indication of the ability to cover operating and capital costs.

48. Greencroft Economics analysis.
49. Converted using the average exchange rate in the year in which the revenue was collected — 2022.
50. Converted using the average exchange rate in the year in which the revenue was collected — 2023.
51. Converted using the average exchange rate in the year in which the revenue was collected — 2024.

BOX 2: MACROECONOMIC CONDITIONS IN MALAWI SINCE THE BEGINNING OF LIGHT A VILLAGE

In the five years prior to Light a Village, Malawi's economy was growing, with income per capita rising 5.8% per year between 2017 and 2021.



Source: World Bank development indicators

Since Light a Village connected its first households, this trend slowed and then reversed, with an average declined of income per capita of -3.3% per year since 2021. As noted in the AfDB's country focus report in 2024, Malawi has suffered "*repeated exogenous and endogenous shocks [which] have significantly impacted economic growth and poverty reduction*".[52]

52. African Development Bank. (2024). Malawi Country Focus Report 2024. https://www.afdb.org/en/documents/country-focus-report-2024-malawi-driving-malawis-transformation-reform-global-financial-architecture.

4.3.3. Costs and profitability

As this is a pilot, the start-up costs may have been higher than they would be if this business model had been replicated or scaled up. As the first of its kind in the region, there have been costs associated with learning-by-doing, including several changes over the course of the pilot including hardware, the daily fee charged, and payment method.

Installation costs per unit have increased, but opex per unit has fallen substantially:

- **Capital costs — landed cost of around USD50-65 per system** (MWK 1,700 at 2025 exchange rates),[53] with around USD4 further related to shipping and warehousing.

- **Installation costs — increased each year from 2021 to 2024, reaching MWK 14,000 (USD8) per system.** The installation of the first 500 systems cost MWK 5,300 each (USD6.60)[54], rising to MWK 7,000 (USD6.08)[55] for the 2,000 systems installed in 2023, and to MWK 14,000 (USD8.14)[56] for the 1,500 units installed in 2024. However, data recently shared for the 4,737 systems installed in 2025 shows installation costs falling back down to under MWK 7,000 (USD4.04) per unit. The rise in installation costs can be explained by input cost inflation, and some increases in costs as the pilot scaled up. For example, the first installations were employed without PVC tubes, resulting in lower material costs. On the other hand, there have been some reductions in certain cost lines over time, with fewer technicians needed in later phases, reducing technician costs by around 60%.

- **Annual operational costs per unit decreased between 2022 and 2024 by around 20%, falling from MWK 17,400 (USD18.34)[57] to MWK 14,200 (USD8.26)[58]**. Opex per unit has recently increased in 2025, to MWK 21,000 (USD12.11), a rise of 20% on the 2022 opex per unit.[59] Part of the reason for the variation in opex is using the pilot to test different types of operating model. In the first phase between the end of 2021 and mid-2023, SolarAid used a relative high-touch model to ensure success of the first and second batch of installed systems in the community. After May 2023, a much lower-touch approach was implemented, to see if unit costs could be brought down as a result of achieving higher scale and density of connections.

Building on the learnings from those phases the business model was adjusted in, with operating costs rising in 2025 as new payment systems were introduced, to help boost customer usage and payment.

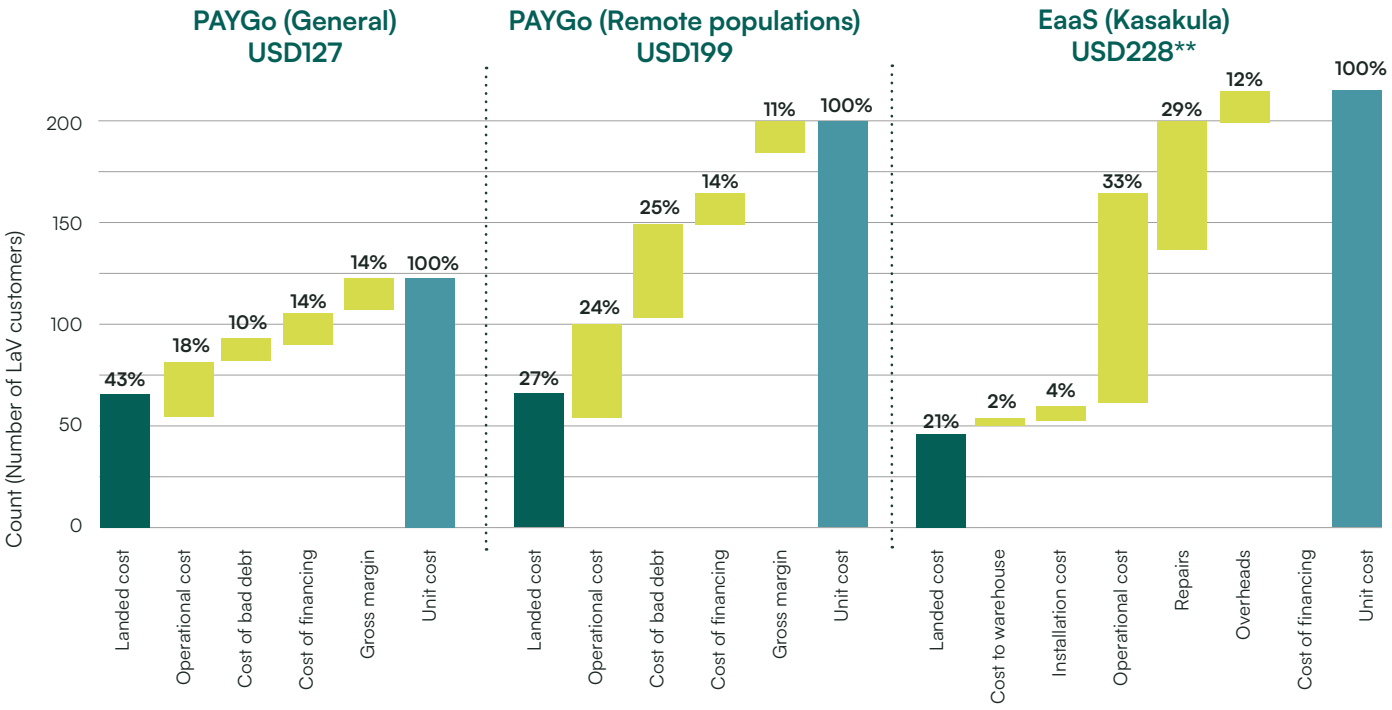
Furthermore, as noted in **Section 4.4.3**, there has been significant inflation in Malawi, which has not resulted in a proportionate increase in Light a Village's operating costs, suggesting there has been a decline in real cost per unit over time. While installation costs are reported separately, there were significant increases in opex around the installation of new batches of systems, as community expenses and staff costs also increase.

Finally, most of the Light a Village systems are still relatively recently installed, so repairs and replacements are presumably relatively low cost for now and would be expected to increase as the pilot goes on. There are also some significant cost lines not included within opex (such as the costs of surveys commissioned, which would comprise an additional 50% of total opex over the whole Light a Village pilot).

Since it provides a longer-term service provision, operating costs make up a relatively high share of total costs. As shown in **Figure 9**, operating costs and repairs are estimated to make up over 60% of costs estimated in the EaaS business model, compared to just 18% for PAYGo in less remote areas, and 24% for PAYGo serving more remote communities. It must be noted that the EaaS operating costs include maintaining service provision over ten years, while the PAYGo costs only include servicing systems up to the end of their warranty period (typically 2-3 years).[60] LaV has been fully grant-funded and not intended to deliver a margin. It does not incur the company and consumer finance-related costs that would arise if external finance were raised. These costs would likely be higher than PAYGo costs, given the longer payback period. For context, in remote areas, financing costs and margin account for approximately 40% of the total cost to customers under the PAYGo model.

53. More expensive hardware has been used as the trial progressed, but with systems which should be more cost effective to repair and replace individual component parts, with a long-term commitment suppliers to make spare parts available.
54. Converted using the average exchange rate in the year in which the systems were installed — 2021.
55. Converted using the average exchange rate in the year in which the systems were installed — 2023.
56. Converted using the average exchange rate in the year in which the systems were installed — 2024.
57. Converted using the average exchange rate in the year in which the opex was incurred — 2022.
58. Converted using the average exchange rate in the year in which the opex was incurred — 2024.
59. The operating costs reported here are based on data provided by SolarAid's allocation of costs to the Light a Village pilot, which we understand includes an allocation of the time spent working on Light a Village, noting that many staff will not be working exclusively on the Light a Village pilot.
60. These figures appear to broadly confirm the data for the systems deployed in the Light a Village pilot — with the Sun King 11-Watt peak system for sale at around USD120 and the Lumen system on sale for around USD110. On Jumia in Kenya at KES15,360 = USD120, and SunnyMoney website listing the LUMN 12Wp for sale in Zambia at Z 2,500 = USD110.

Figure 9: Comparison of cost breakdown of PAYGo and EaaS[61]



*** The data for the Light a Village pilot in Kasakula does not yet include a history of data on repairs and replacement costs, and has been fully funded by upfront grants and so does not have any financing costs. For the purposes of illustration, we include a repair/maintenance allowance of USD65 per system.*

Comparing annual operating costs to annual revenue per unit, there is headroom of between USD2 per unit per year. While revenues and operating costs have both fluctuated substantially over time, they have tended to (broadly) move in correlation with one another, with revenue exceeding opex by about MWK 3,500 (USD2) per year.

Long-term success of the Light a Village operations will hinge on efficient and low-cost repairs as systems age. In the first couple of years after installation, the need for repairs should be relatively limited.[62] Opex is therefore likely to increase as repair and replacement requirements rise. While LaV currently appears to have a margin of USD2 per system per year within its operating expenses, these funds will likely need to be allocated for future repairs. Clearing only USD20 per system over a ten-year period seems relatively low, as most components of the initial USD50 system will require replacement within that timeframe. This will require both the cost of replacement parts and the labour required to carry out repairs

The most recent data suggests repair incidents around 20% of all systems installed. There were 334 repair incidents logged in 2024, at a rate of 13% of all systems installed, with 2,576 systems installed before the beginning of the year.[63] In the first nine months of 2025, there have been 604 repair incidents logged, which if extrapolated to a full year would be 22% of the 4,076 systems installed by the end of 2024.[64] We do not have robust data on the cost of these repairs in terms of replacement parts, nor the operating costs associated with responding to these repair call-outs. The most frequent causes of repairs are: (1) battery replacement, comprising 33% of repairs, or (2) circuit replacement, comprising 31% of repairs.

61. For the two PAYGo stacks, the source is the Off-Grid Solar Market Trends Report 2024; for the EaaS estimate, Greencroft Economics analysis based on data provided by SolarAid.

62. Efficiency for Access. (2020). Pathways to Repair in the Global Off-Grid Solar Sector. https://efficiencyforaccess.org/publications/pathways-to-repair-in-the-off-grid-solar-sector/.

63. There were a further 1,500 systems installed in 2024, but we do not include this here on the basis that they should be making no — or only a very limited — contribution to repair needs in the year of their installation.

64. A single customer could have multiple repairs logged for the same system, but each has a separate resolution and repair time.

The per unit opex margin is unlikely to be sufficient to make contributions toward repaying the initial cost of acquisition and distribution of systems. As noted above, it appears likely that the revenue generated will not be sufficient to maintain all systems and replace when needed. Even without this expected rising cost of repairs, with an annual opex gross margin of USD2 per system per year, it would require around 25 years to recover the cost of the initial system (USD50).

The other missing cost is the cost of finance — if Light a Village had been commercially financed these could be substantial. These are discussed below, when comparing to how PAYGo or other energy access business models would work. The LaV approach does not entail financing costs, as it has been fully grant-funded as a pilot, with a full capex subsidy upfront to acquire systems, and a mix of grant funding and revenues available to cover operating costs. This upfront finance has an "opportunity cost" — if it was provided by an equity investor or a lender they would be expecting their capital back plus a rate of return. As shown in 4.3.3, the financing costs for PAYGo are a significant share of their overall cost — with bad debt and financing combined at 39% of the cost of PAYGo to serve more remote communities.

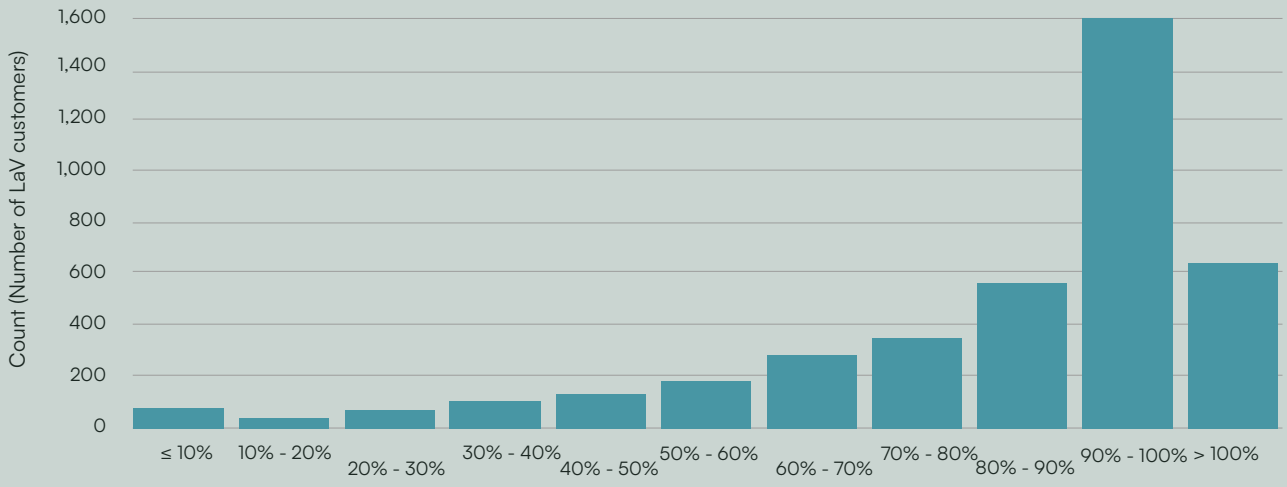
BOX 3: ADDITIONAL PAYMENT AND USER DATA — UPDATED SINCE MAY 2025

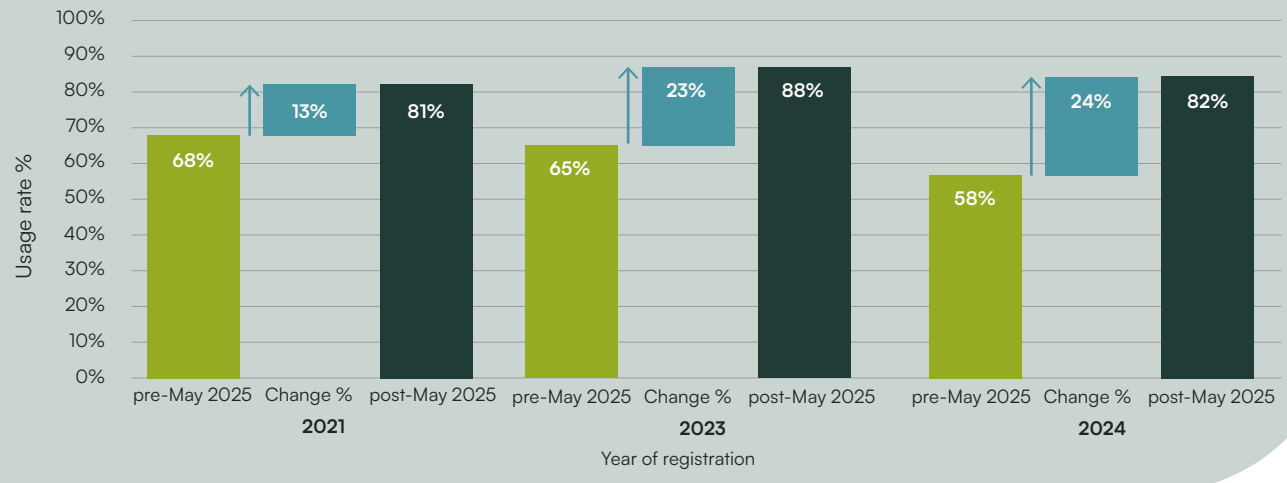
SolarAid has provided updated payment and usage data up to the end of August 2025, which includes payments since the transition to a new automatic payment system implemented in May 2025. This data includes updated payment data for the initial 4,076 users, and for new users connected over the course of 2025, but which use a different customer revenue management (CRM) system to track payments and user details. The initial group is connected using the Angaza system and the latter group the Moon system.

This box analyses the change in payment patterns for the 4,076 users, which have been analysed throughout the remainder of this report. It does not look at the usage patterns of the new users for which we do not have a sufficiently long history to draw inference, and since they use a different CRM system may not be directly comparable. In the first four years of the project, up to May 2025, customers made payments via cash to local agents or at fixed points of sale. Since May 2025, all payments are made through digital "self-service" payments via the customer's mobile phone.

The average utilisation rate has risen due to the implementation of self-service payments, back up to 85%, compared to an average of 67% for 2025 previously. The histogram below is based only on the payments made with the new system, and shows that in the last few months since the self-service mobile payments were introduced, over half of customer accounts have a utilisation rate above 90%, compared to just 20% before the implementation of the new system, when customers were making payments manually to agents or at fixed payment points.

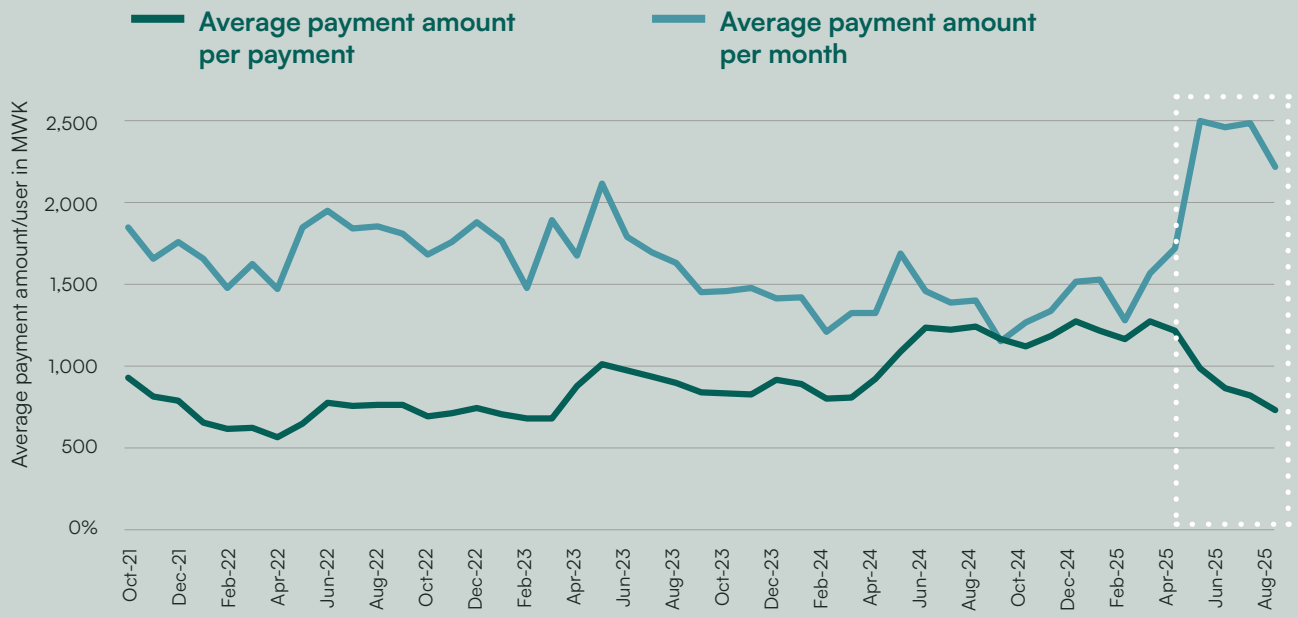
The new payment data shows an increase in average usage rate for each cohort, with an average 20% increase since the switch to the self-service payment system. In the first four months of 2025 the average usage rate across the three cohorts was 63%, jumping to 85% after the implementation of the new payment system. This is noteworthy, as usage increased while the daily fee had also increased during this period. It seems that the new payment system has a positive effect on usage rate, and if usage would decline after a daily fee increase, the convenience of the payment system more than makes up for this.





The payment rate of the 2022 cohort, which consists of schools, has remained unchanged — as it was already relatively high. This cohort is not shown in the graph as they are not comparable to the household connections. Their usage rate stable — at around 85% - without any increase since the introduction of the new payment system.

Since moving to the self-service mobile payments, customers make twice as many (but smaller) payments. The number of payments has risen from an average of 1.5 payments per month per user before (with the same number of users) to three payments since. During the first two years of the pilot, the average amount per payment hovered around MWK 780 (USD0.45). From April 2024, this increased to around MWK 1,200 (0.69) per payment and remained stable for the year until April 2025. Since then, the average amount per payment has dropped to MWK 830 (USD0.48), as shown in the blue line in the figure below. This lower average amount per payment shows that the new payment mechanism makes it easier for customers to make more frequent, lower volume, payments.



The combination of the higher price per day and higher usage rates described above for household customers translates into a 60% increase in revenue per unit. The average payment per unit has increased to MWK 2,400 (USD1.38), up from MWK 1,500 (USD0.87)) in the 12 previous months (as shown by the green line in the figure above). Most of this change is driven by the change in pricing from MWK 70 (USD0.04) per day to MWK 100 (USD0.06) per day (which would increase payment per user by 40%), and the remainder by the increased usage per user.

4.4. Does Light a Village offer better value for money compared to alternative energy access business models?

4.4.1. Company and customer outcomes under PAYGo compared to EaaS

For the customer, Light a Village may be a preferrable model if the PAYGo deposit or ongoing payment rates would be too expensive. As noted in **Section 4**, most households in Kasakula would not be able to pay for a PAYGo system.

It is hard to tell if this is because of an inherent advantage of EaaS compared to PAYGo, or if it is driven by (higher) upfront capex subsidies embedded in the Light a Village pilot. PAYGo can also be provided over a longer period, with some companies experimenting with longer lease-to-own periods of for example five years. These can result in lower default rates and better customer retention,[65] although other companies have found higher default rates associated with longer repayment plans. The effectiveness of EaaS compared to PAYGo may also depend on expectations and attitudes of different customer segments, as some customers may have an expectation that they would own assets that are situated on their property (unlike the national utility analogy), and may not be satisfied to pay in perpetuity.

Light a Village has benefitted from a complete capex subsidy, which removes the financing costs which are a significant element of the expense of PAYGo as a business model. We do not have any comparable experience with PAYGo benefitting from a 100% capex (i.e. upfront) subsidy, which would allow a more direct comparison of lease-to-own compared to fee-for-service under comparable conditions. The long-term financing risks are discussed further in **Section 4.4.3.**

> "Our experience in Malawi is people use a product efficiently if they are going to own it."
>
> **[OFF-GRID SOLAR PROVIDER]**

> "Beyond the two-year payment plan for the system, we will come and replace it, and customers either pay upfront or go back onto another PAYGo plan."
>
> **[OFF-GRID SOLAR PROVIDER]**

> "The SHS we have set up in 2018 are still in use. The warranties were traditionally two years for the system, but this has increased, and manufacturers can provide long-term guarantees."
>
> **[OFF-GRID SOLAR PROVIDER]**

65. Yariv Cohen. (2025). Four Key Lessons for Implementing PAYGo 2.0: How the PAYGo Solar Sector Can Fulfill its Potential. https://nextbillion.net/four-key-lessons-implementing-paygo-how-paygo-solar-sector-can-fulfill-potential/.

Finally, while EaaS may reduce the monthly fee for energy access, it could increase lifetime costs for customers if tariffs were to be cost reflective. For a system retailing at USD65 (MWK 113,000) as a cash sale, the total amount paid under a typical 12-18 month PAYGo plan would be around MWK 145,000 — a premium of around 30% — with the downside being the system only remains functional for as long as the warranty period or asset life (whichever is shorter).[66] For Light a Village customers, the total amount paid at a 100% utilisation rate at the daily fee of MWK 100 would be MWK 182,500 after five years. As noted above, at these prices Light a Village is not recovering any of the initial costs of deployment of the systems. From a financial perspective, it is not yet clear whether a customer is better off on an EaaS contract (with a commitment from the service provider to maintain service indefinitely), or on a PAYGo contract, incurring the cost to replace or upgrade their system at the end of its life.

4.4.2. Comparing to other subsidy programmes

The funding required for Light a Village appears comparable to that provided under the nationwide Ngwee Ngwee Ngwee Fund (NNNF), at USD50-USD65 for Light a Village[67], and USD80 per unit under the NNNF. In the first phase of the NNNF, 250,000 households gained access to standalone solar, supported by USD20 million amounting to USD80 per system. The next scale up phase of the NNNF aims to reach over 800,000 households with USD60 million in finance, amounting to USD75 per system.[68]

This is not directly comparable, as the NNNF funding includes working capital. Over 70% of the USD20 million was in the form of loans, with the remaining 30% in the form of results-based finance grants.[69,70] Since the RBF grants come only after verification of results, the companies face costs associated with raising finance to deploy systems and collect customer revenues, before they can reach the RBF milestones. However, the loans also are also concessional, in that they are provided to companies in hard currency (USD) at the fixed official exchange rate, and repaid in Kwacha at a fixed interest rate of around 20% and not bearing any depreciation risk. The combination of the RBF and the concessional loans is estimated to have reduced the total PAYGo price for consumers by around USD50 (34%).[71]

It is also not directly comparable as it targets different communities. NNNF targeted rural customers in 28 districts, with the highest uptake in Mzimba and Kasungu in the North, rural Lilongwe in the Centre and Chikwawa in the South.[72] Of the 243,000 systems deployed under NNNF, around 8,000 are in Ntchisi district. However, as noted in **Section 3.1,** the Kasakula TA where Light a Village is operating is significantly poorer and harder to reach than the Ntchisi average, and it is reasonable to assume that Light a Village has reached a poorer and costlier to serve customer base than the NNNF.

The demand side subsidies (DSS) piloted by EnDev have been far larger than the Light a Village subsidy, at up to USD150 - 180 per connection. The incentive level varied depending on whether companies served poor or poorest households — almost all households in Kasakula would have been eligible for the USD180 per system subsidy, which covers up to 88% of the price of the system. This implies eligible systems priced at up to USD200. The range of systems is larger than the Tier 1 systems used by LAV and include any products with at least three lights, and capacity above 6-Watt peak, providing more than 12-Watt hours per day. Nonetheless, the LaV approach appears to offer an attractive alternative, given the high penetration achieved in Kasakula, for appropriately sized systems at a lower cost per unit. Furthermore, administering a complex Demand-Side Subsidy (DSS) such as the EnDev programme requires a significant proportion of the total budget to be allocated to monitoring and verification. This process may be more cost-effective under a community-electrification approach, where systems are concentrated in a smaller geographic area and verification is therefore more straightforward.

66. Based on an illustrative PAYGo plan with a 20% deposit and an 18-month repayment period.
67. A range of hardware systems have been trialled during the implementation of Light a Village, ranging in FOB cost from around $50 to around $65.
68. Lighting Global/ESMAP. (2024). Designing Responsible End-User Subsidies for Energy Access. https://www.esmap.org/OGS_Responsible_End-User_Subsidies_for_Access.
69. It is noted in the following source that USD14.1m had been committed in loans, and USD5.1m in RBF grants.
70. World Bank. (2025). Restructuring Paper: Malawi — Electricity Access Project. https://documents1.worldbank.org/curated/en/099062125023514088/pdf/P164331-4a1d11c4-4ac7-42fb-8395-6631df762e6e.pdf.
71. Based on discussions with World Bank staff and the NNNF project documentation.
72. World Bank. (2025). Restructuring Paper: Malawi — Electricity Access Project. https://documents1.worldbank.org/curated/en/099062125023514088/pdf/P164331-4a1d11c4-4ac7-42fb-8395-6631df762e6e.pdf.

4.4.3. Long-term repayments equals long-term risk

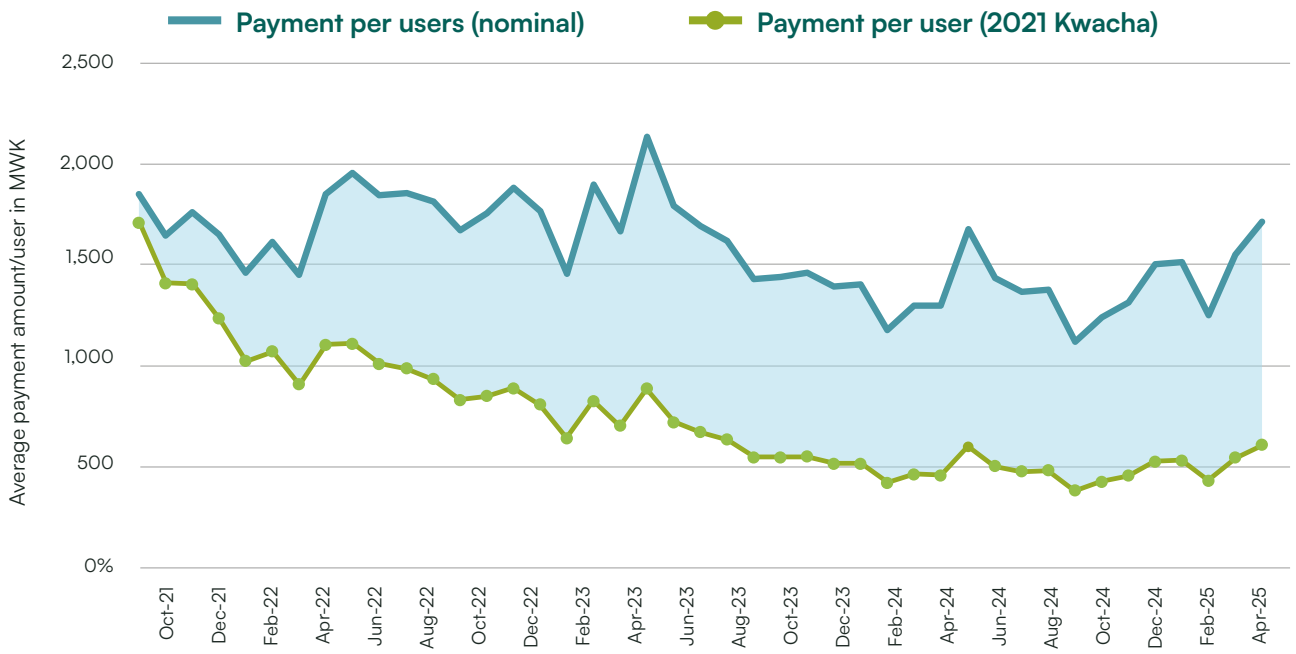
While in Section 4.3 we described the nominal costs and revenues of the Light a Village pilot, in this section we consider these values in real terms. This means accounting for inflation and currency fluctuations where relevant. Assessing costs and revenues in these terms is important if we are to consider the potential for Light a Village to raise external finance. In such a case, local currency financiers (in Malawian Kwacha) would seek a positive real return, meaning an interest rate above the local rate of inflation. Similarly, international financiers would require a positive real return, with interest rates above US dollar inflation and consideration of the exchange rate risk when converting revenues from Malawian Kwacha back into US dollars).

A challenge highlighted by the Light a Village experience is inflation, which erodes the value of future payments if prices cannot be adjusted dynamically. As shown in **Figure 10**, the nominal payment per customer remained relatively stable over time (at MWK 1,500 per month in April 2025 compared to MWK 1,700 per month in October 2021). However, the value of these payments in real terms fell by 62%. This matters for two reasons: (1) because some costs of implementing will have risen in line with inflation **(as noted in Section 4.3.3)**, whereas revenue has not, and (2) if the LaV scale up relied on any finance in local currency, lenders and investors would want to make a real rate of return — i.e. above any loss in value of the Malawian Kwacha due to inflation.

A related challenge relates to currency fluctuations, if Light a Village had been taking commercial debt and needed to repay international lenders in hard currency. Figure 11 shows that total revenue collected in USD terms, with the top (dark blue) line showing the value of revenue holding the exchange rate constant from the start date in 2021. By April 2025, the value of revenues in USD terms fell by 53%. If Light a Village had been financed in hard currency (e.g. through USD denominated loans), this would cause a significant challenge for repaying any hard currency finance.

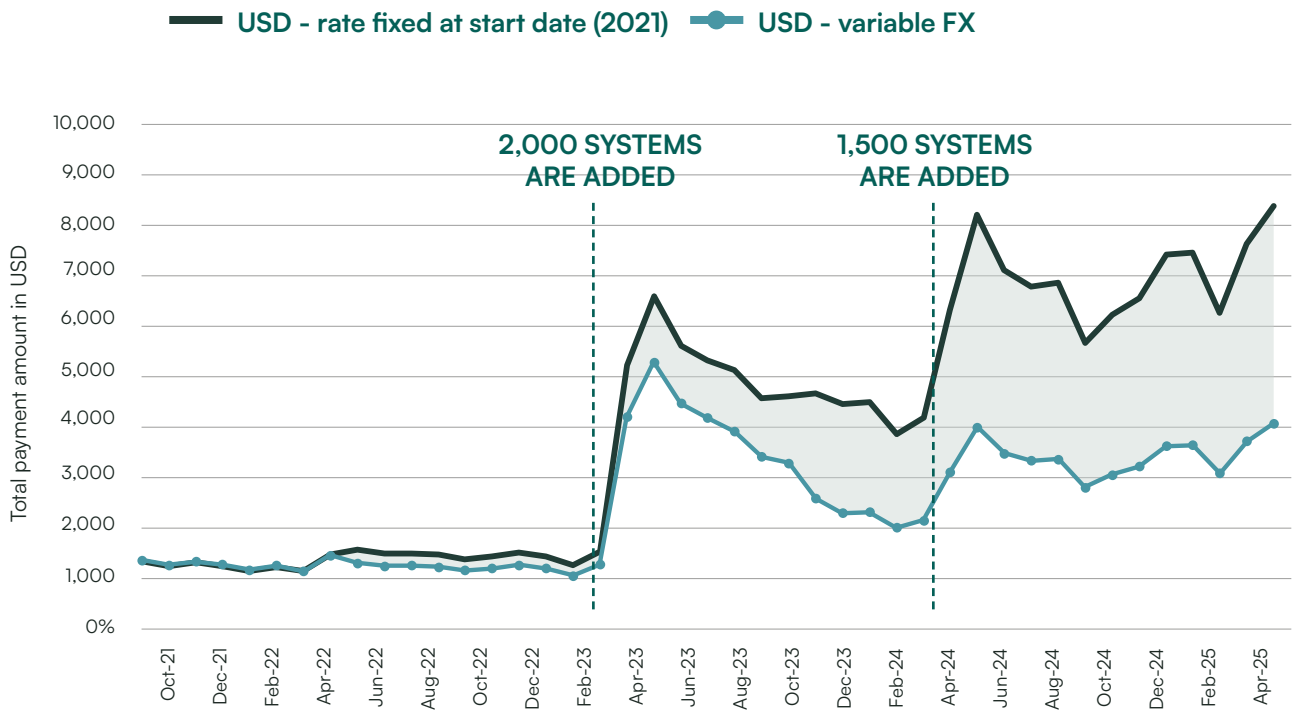
Collecting customer payments over a longer time period can erode value compared to cash over-the-counter or shorter-term PAYGo models. The takeaway of both the inflation and currency depreciation paragraphs above is that the longer the payback period for a business model, the higher the risk associated with inflation and currency depreciation. These challenges also affect PAYGo — and is a motivation for shortening, not lengthening, the period over which customers repay the initial cost of installing their systems.

Figure 10: Payment pattern over time, inflation adjusted[73]



73. Greencroft Economics analysis.

Figure 11: Total payments over time, foreign exchange rate adjusted[74]



74. Ibid.

"The difference is that EaaS can reduce the price point much further, but how long can that person pay? If they are ultra poor, there might be days where they can't pay and they default back to traditional lighting options."

[OFF-GRID SOLAR PROVIDER]

"EaaS will need constant grant funding, so it is challenging to see them as a reliant partner for after sales services and as a long-term energy provider."

[FINANCIER]

"Energy as a Service has changed our long-term business approach; we are working on developing special EaaS batteries that can last ten years."

[SOLARAID]

4.5. How sustainable is the Energy as a Service approach?

4.5.1. Sustainability of the Light a Village pilot

Light a Village can maintain Tier 1 service to connected households but may need a subsidy top up once systems come to the end of their asset life. With usage rates at 70%, revenue appears to be enough to cover operating costs. However, it remains to be seen if the revenues generated will be sufficient to cover (rising) repairs and replacement costs. As such, it is too early to assess the effectiveness of operations once system components reach the end of their asset life, but it seems unlikely that the current operating margins will be sufficient to cover replacement and repair needs.

Stakeholders interviewed also perceived EaaS to be a grant-reliant business model. Other companies, financiers, and programme managers expect EaaS to be reliant on long-term subsidies to maintain service provision. This creates a challenge to the extent that there is a (perceived) risk that the EaaS operator may not maintain service levels, or to do so would require continued subsidy levels without facing competition. It may also create a challenge in that it may be challenging for governments or funders to hold the EaaS service provider to account and ensure cost-effective and high-quality service, or to estimate appropriate subsidy levels once there is effectively a monopoly service provider in place.

However, recent changes in the payment collection approach could significantly boost revenue collection and therefore ability to cover all ongoing costs. As of May 2025, with almost all customers now using mobile payments instead of physical payments to an agent or at a fixed point of sale, we have seen usage rise from under 70% to 85%.

The long-term commitment may provide better incentives for energy suppliers to focus on what matters for customers over a longer time period. Since the energy provider is responsible for service and maintenance for at least a ten-year period, the incentives of the provider are to ensure continuous and high-quality cost of service, and to bring down ongoing costs.

> "We are not sure whether EaaS will remain as a possible business model to receive funding under ASCENT; so far EaaS is not seen as a profit-making model; for this reason, they did not qualify for loan and received a grant instead. We believe that EaaS will need constant grant money to sustain."
>
> **[FINANCIER]**

> "You have to look for what is most sustainable also without donor funding as donors are less and less interested in pure development aid. We look at all our funding as if it's an investment. ultra-poor communities."
>
> **[DEVELOPMENT PARTNER]**

4.5.2. How an enlarged Light a Village scale up could be funded / financed

There is a limited number of funders with the resources required to take Light a Village to a much larger scale. The initial pilot was constrained by availability of funds, with various partners contributing to its development. Finding funders who are prepared, and able, to commit significant resources is likely to be a challenge — it is not clear who the concessional / grant funders could be at scale.

The most natural fit might be government-led initiatives, but it is not clear they have the resources to push EaaS at scale. In Malawi, the main source of energy access funding will be through the NNNF, supported by the World Bank. However, it is not yet clear to what extent EaaS will be eligible and if it is it may not get the volumes that would be needed to take Light a Village to much larger scale. Development partners are in general reducing their budgets and looking for business models that can mobilise private investment to leverage their limited public funding. The most likely sources of funding seem to be impact and philanthropical funding, interested in proving the benefits of the model to reach universal energy access in the (relatively) short term.

Internationally, there are now a range of initiatives to finance and pilot EaaS, primarily driven by the Rural Energy Access Lab (REAL)[75]. Further EaaS pilots are outlined in the Assessing the Potential of EaaS to Provide Affordable First-Time Energy Access report including the "Lite Salone" initiative which aims to deliver clean and affordable solar energy to rural communities in Kambia District in Sierra Leone, or the +Energia program in Mozambique which is a Results-Based Financing (RBF) pilot for companies supporting Solar Home Systems delivered through the EaaS model.[76]

75. Rural Energy Access Lab (REAL). (2025). https://www.realenergyaccesslab.org/.
76. +Energia. (2025). Results-Based Financing (RBF) Funding Window 2: Energy-as-a-Service. https://maisenergia.co.mz/wp-content/uploads/2025/06/RBF-EaaS-DRE_Call-for-Proposal-1_v01.pdf.

Light a Village does not seek to offer an investment proposition to commercial financiers in this pilot phase. This was not the purpose of Light a Village, which is an early-stage pilot of EaaS technologies and the business model, and has not sought to be structured as an investable project pilot. As noted in **Section 4.3.3**, the ability to generate cashflow to cover costs and generate a margin to repay financiers appears limited, even if the initial capex associated with acquiring the system is entirely subsidised.

The risks associated with long payback periods may pose a challenge to raising external finance for the EaaS approach. As noted in **Section 4.4,** over the ten-year period over which initial costs (and associated financing) would be recovered, there has been significant inflation and currency depreciation. For an investor, this poses a major challenge if financing in a hard currency such as USD, as the revenues generated risk being reduced by 50% or more by currency movements alone. While this is a challenge that affects other business models, the risks are heightened in the Light a Village approach where investment capital is likely to be outstanding for longer.

It is not clear who might finance a significantly scaled up version of Light a Village in Malawi. While programme managers and funders expressed an interest in the EaaS model, there was also some skepticism around the long-term sustainability and need for ongoing subsidies. A challenge for EaaS as a whole is that the proof of this model requires seven - 10 years, as it hinges on the ability to generate sufficient revenues to cover operating costs once systems begin to age and need significant repairs or replacements. Local banks for example expressed interest in EaaS, but would need to see a much more detailed proof of concept before it becomes a lendable proposition

"We are developing products for the energy sector, and the EaaS models seem exciting. They would need to do further risk assessment for each business case but financing the AssetCo through blended finance is interesting."

[FINANCIER]

"We are active in the energy sector as we have partnered with other private sector solar companies. We think the Energy as a Service model would be interesting to support because of the social aspect, however, the bank would need to fully the business model from cash flows and potential returns perspective."

[FINANCIER]

Diana Samuels studies at night

Source: SolarAid/Kondwani Jere

5. LESSONS LEARNED

1. EaaS can achieve high penetration in underserved regions

Light a Village has shown that high — even 100% — adoption is possible. The pilot was intentionally designed with no upfront fee and no commitment to use the system, meaning there was no reason for a household to decline the offer.

2. Payment rates decline slightly over time, and as penetration increases

As Light a Village connected more households, the average usage rate of each new cohort of households has been lower than previous cohorts. This may to some extent reflect that the more households you connect, the less likely they are to be well-paying customers (as higher ability to pay customers tend to self-select as earlier adopters).

Usage rates dropped between 2021 and mid-2025, to average usage rates of around 70% — meaning the average customer doesn't pay to activate their system for three out of every ten days. This decline may be driven by worsening economic conditions, squeezing households' ability to pay for energy access, or to how quickly system faults can be repaired and how easily customers can make payments to activate their systems. There is recent evidence that the shift to mobile and digital payment systems has resulted in an (initial) increase in usage, since May 2025.

3. Economies of scale can be unlocked in opex

While hardware and installation costs do not appear to generate substantial economies of scale, there has been some signs of a decrease in operating costs per unit as the pilot scaled up.

4. Long term risks could be significant if EaaS was to raise external finance

The Malawi context provides a reminder of the risks of long-term corporate or consumer finance — with substantial inflation and currency depreciation since the beginning of Light a Village in 2021, which would reduce the MWK receipts by over 60% in real terms by 2024, and by over 50% when converted into US dollars. This may make external financing from both domestic and international financiers for EaaS challenging, as these risks are hard (expensive) to insure against.

5. It is challenging to compare business models, as they have been funded very differently

It is hard to compare PAYGo and EaaS, as the approach to funding each business model has been radically different. This does not need to be the case — the same types, structures and objectives of subsidy can be applied to both EaaS and PAYGo.

6. The proof point for EaaS will come between five - 10 years when systems need significant repairs or replacements.

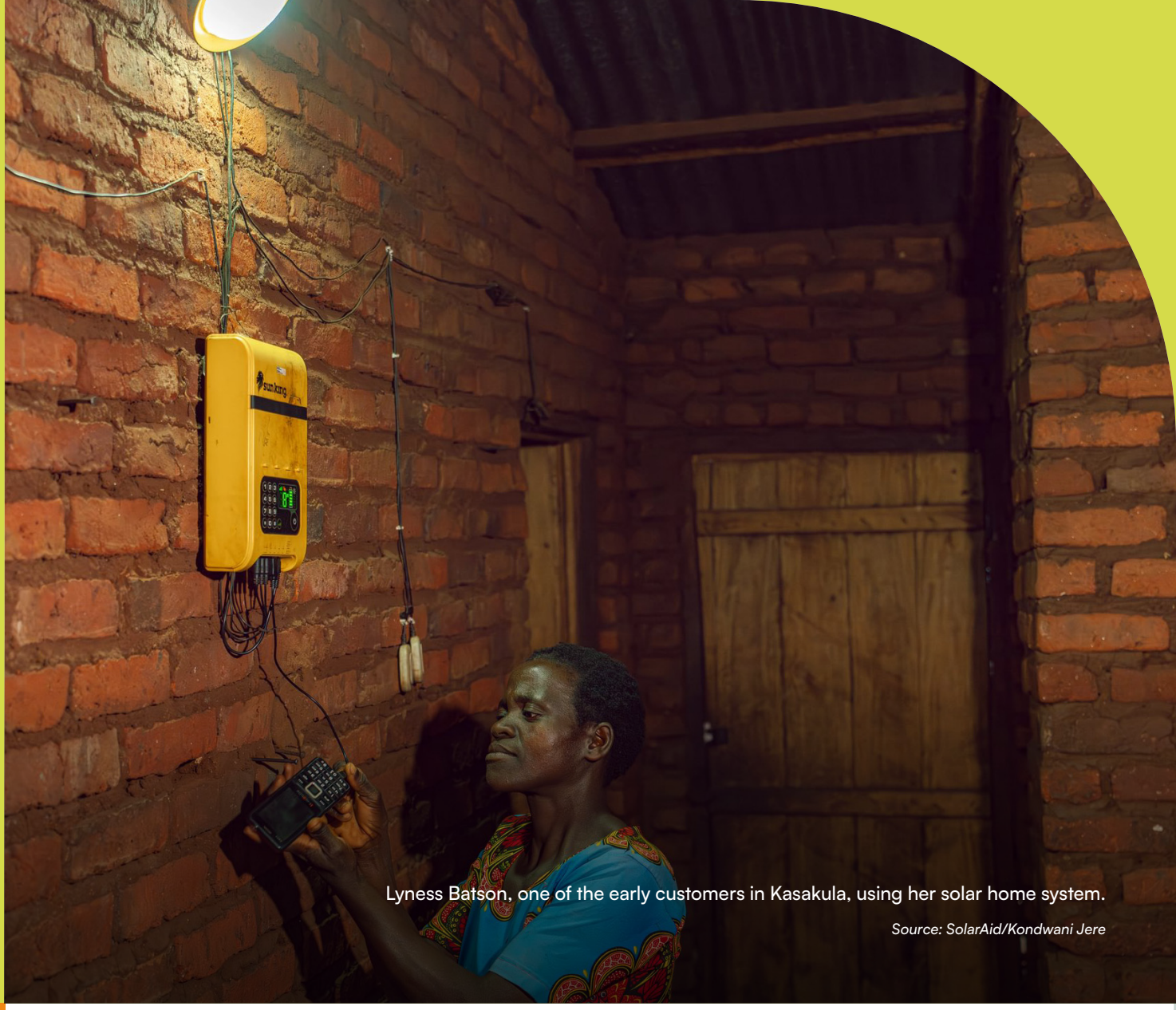
It is premature to judge the financial sustainability of LaV, as operational sustainability can only be judged after five - 10 years, once components of all systems have needed to be repaired or replaced, and e-waste sustainable collected and disposed of at scale.

7. EaaS could be cost-effective, if it can make good use of a larger upfront subsidy

Frontloading a capex subsidy can reduce the costs associated with raising external finance and can make EaaS competitive on a subsidy-per-unit basis with the NNNF results-based financing and with EnDev's demand-side subsidy.

8. While interest in EaaS is high, financiers remain cautious

Many stakeholders see EaaS as highly impactful, but there is a general scepticism about its finance-ability — common among other companies, programme managers, and financiers.



Lyness Batson, one of the early customers in Kasakula, using her solar home system.

Source: SolarAid/Kondwani Jere

6. RECOMMENDATIONS

KEY RECOMMENDATIONS

1. Increase awareness of the EaaS business model and value proposition

Despite its benefits as documented here, there is still limited awareness and understanding of the EaaS model. Creating awareness among stakeholders and decision-makers — in particular funders and governments — about the model's advantages and impact is crucial for its wider adoption and scalability.

2. Gather robust unit cost data by specific key activities and track how it evolves

It would be highly beneficial to demonstrate to financiers the extent to which economies of scale — i.e. declining unit costs — can be generated for different activities.

In particular with respect to: (1) capex (landed cost) associated with bulk procurement, (2) distribution and installation costs, (3) customer service and payment collection, (4) repairs, replacement, repossession. If costs for each of these activities can be tracked, it will help make the case for the EaaS business model.

3. Experiment with pricing, when scale and time allows

With larger scale, it would be highly informative to experiment with pricing and test how responsive both usage, and connection, are to different pricing structures. For example, would utilisation be significantly lower (or higher) if the daily fee was increased (or decreased) by MWK 50 (USD0.03)? Understanding these price elasticities would provide a clear proof of concept and reassurance on what the appropriate price for connecting an entire community would be.

4. Innovate with the system and with options with the EaaS approach

The LaV pilot initially used off-the-shelf systems that designed for PAYGo. There is an opportunity to design EaaS appropriate specifications, for example with longer battery life, and easier replacement of component parts. It would also be interesting to explore whether there are options to offer different product—price bundles within the EaaS approach, allowing some households to select higher levels of energy access.

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ANNEX 1 — STAKEHOLDER ENGAGEMENT LIST

Table 1: Stakeholder engagement list

#	Organisation	Type	Person
1	SolarAid	Solar Provider	Brave Mhonie
2	Green Impact Technologies	Solar Provider	Joyce Sikwese
3	Kukula Solar	Solar Provider	Francis Mbewe
4	Wala	Solar provider	Priscilla Sani-Chimwele
5	Za Solar	Solar provider	Fishani Msiska
6	Sun King	Solar provider	Emmanuel Kaliwo
7	NBS Bank	Local Bank	Penelope Initial
8	FDH Bank	Local Bank	Peppho Khomba
9	Ministry of Energy Malawi	Government Agency	Gift Chiwayula
10	IDCOL / Ministry of Energy Malawi	Government Agency	Lucy Chimombo, Stephen Matemba
11	GEAPP	Development Partner	Collen Zalengera
12	Malawi Scotland Partnership	Development Partner	Linda Dembo
13	GIZ / EnDev Malawi	Development Partner	Mfumu Kuseni
14	UK Government's Foreign Common-wealth and Development Office in Ma-lawi	Development Partner	Daniel Kachale
15	Independent	Expert	Diliza Nyasulu
16	Yellow Solar	Solar provider	Maya Stewart