

# ANNUAL REVIEW

2022-2023



# OUR STORY SO FAR

## WHY WE EXIST

Nearly 600 million people in sub-Saharan Africa are denied access to clean energy. For communities in economically or geographically hard-to-reach places, the working day ends when the sun sets, leaving people with no option but to use battery powered torches, kerosene lamps or paraffin candles to see – alternatives that are expensive, dangerous and can emit toxic fumes into homes and the atmosphere.

SolarAid is an international charity founded in 2006 to combat poverty and climate change. Our pioneering 'trade not aid' approach uses sustainable enterprise to catalyse markets for safe, clean energy access. To date, we have distributed over 2.3 million solar lights across rural sub-Saharan Africa reaching places too challenging for the mainstream market.

We know that every time someone switches on a solar powered light, it's an instant win for people and the planet. That's why it's our mission to light up every home, school and clinic in Africa by 2030, making real sustainable change with clean, safe solar power.

## INNOVATING TO LEAVE NO ONE BEHIND

We already punch above our weight. We gained our extensive knowledge from working on the ground, building a sustainable market for solar lights in sub-Saharan Africa. Through our social enterprise, SunnyMoney, we learned that building local, sustainable businesses and involving communities is the best way to ensure universal access to energy and make lasting change happen faster.

Our business-based approach helps bridge the gap between emerging enterprises and people living in poverty. This means we can invest in bold ideas that carry risk and model the market, creating pilots that are scalable for both businesses and governments.

However, we see an urgent need for fast-tracking universal energy access, delivering pilots with the potential to be replicated or scaled. Therefore, our focus is moving from building our own sales operation to product and process innovation.

Now the challenge is to reach the toughest market segments, overcoming barriers of poverty and deprivation to deliver clean, affordable, sustainable energy into communities considered low margin, high risk and beyond reach.

Every SolarAid programme is open-sourced to encourage replication and scale through collaborative partnerships to achieve our aim: to ensure that no home, no school and no clinic in Africa is left without light by 2030.

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# MESSAGE FROM THE CHAIR

MIRJANA ŠKRBA

I would like to start this annual report with a reflection on the concept of keystone species in the natural world. Creatures like beavers, wolves, and sea otters, though numerically modest, wield significant influence within ecosystems, aiding adaptation to environmental shifts. It prompts us to ponder whether energy access, much like these keystone species, acts as a pivotal utility, enhancing societal resilience in the face of change.

In a world fraught with disruptions and uncertainties, we find ourselves grappling with challenges on various fronts. In the UK, inflation and rising costs are straining society, while globally, trade conflicts, social unrest, and geopolitical tensions loom large. Governments grapple with complex trade-offs concerning food security, biodiversity loss, and climate change.

In this context, SolarAid is committed to implementing short-term initiatives that serve as stabilisers, fostering long-term, multi-domain resilience. We offer solutions that address immediate needs while mitigating future risks. Health and education stand as cornerstones of addressing both present requirements and future human capital and economic development, reinforcing societal resilience against a multitude of shocks, including climate change. Strengthening resilience in these critical domains proves advantageous across all future scenarios, enhancing preparedness for diverse risks, whether known or unforeseen, immediate or long-term.

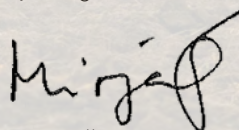
In the fiscal year 2022-23, SolarAid persisted in its efforts, advancing projects to establish sustainable access to renewable energy for the most remote communities. Concurrently, SunnyMoney teams tirelessly distributed lights to the last mile.

I extend my heartfelt gratitude to all our fundraisers, volunteers, and partners for their remarkable support, making a profound impact on individuals and entire communities. You have bolstered the resilience of countless women, men, and children, offering them brighter prospects amid a backdrop of uncertainty and change.

SolarAid envisions a world where clean, renewable energy is accessible to all. Yet, today, more than half a million people in sub-Saharan Africa remain without electricity, compelling them to curtail their activities by 6pm. Many resort to costly, hazardous lighting sources such as candles and kerosene lamps, perpetuating poverty. Children's education suffers in the darkness, and kerosene's fumes harm health. Absence of light and power impedes livelihoods and harms the environment.

Most alarmingly, safety is compromised, as too many rely on candles and rudimentary kerosene lamps, risking their lives nightly to illuminate their homes.

Our mission is clear: by 2030, we aim to illuminate every home, school, and clinic in Africa with safe, clean solar power. Together, we aspire to transform lives, breaking free from the shackles of darkness and insecurity, towards a brighter and more sustainable future. Thank you for joining us on this remarkable journey.



**Mirjana Škrba, Chair of Trustees**

# WELCOME FROM OUR CEO

From the moment we were established in 2006, SolarAid has been a ground-breaking organisation, pioneering new ways to enable people living in extreme poverty across rural Africa to access solar powered electricity and light.

Just one example is how we spear-headed the first generation of Pico solar solutions. We recognised their incredible potential to fast track access to electricity for millions of people who were living beyond the reach of on-grid energy markets. And we delivered.

We've always taken a 'trade not aid' approach. By working in partnership with rural communities, governments and enterprise, we explore new ways to catalyse solar markets and crack last mile distribution in the toughest terrains.

Over the past decade, we've distributed an incredible 2.3 million solar lights inspiring others to follow – work that has helped improve people's lives across the continent, and replacing dirty fuels like kerosene and candles. Advances in technology has provided the opportunity to help power rural livelihoods and agriculture, helping vulnerable communities increase their resilience to the threats of climate change.

It's a good news story with phenomenal results. But business as usual is not enough. We need to do more to enable the poorest households and communities to join the solar revolution – to ensure that no one is left behind.

Without urgent, game-changing action, innovation and collaboration, the world will not be on track to achieve our global collective Big Hairy Audacious Goal (BHAG), SDG7 as laid out by the United Nations' SDG7: to ensure universal access to electricity by 2030.

This is why SolarAid has been developing and stress-testing ground-breaking innovative programmes – models designed to reach the toughest market segments, overcoming barriers to access, while also facilitating replication and scale across new geographies.

Our rigorous process means we measure success not just by the number of solar lights and products being distributed, but also in terms of what we call Leave No One Behind (LNOB).

These LNOB metrics focus on the percentage of rural households and institutions within communities who we reach through inclusive innovative business models and interventions.

The results of this shift in our focus are already extremely encouraging – in fact, up to 99% of households in some project areas now benefit from access to solar electricity.

In the years ahead, we will build on this. We will continue to innovate as we also seek to bring solar electricity to schools, health faculties and to power rural livelihoods. We will also continue to share our learnings and engage with the wider development community to find ways to scale successful interventions which have the potential to fast-track progress towards universal electricity access by 2030.

It is all within our reach. But now we have just over six years left to reach 600 million people living in even harder-to-reach places – and the clock is ticking.

**So we are stepping up again.**



**John Keane, CEO, SolarAid**



# THE IMPACT WE MAKE

## DIRECT IMPACT

SolarAid sold 105,960 solar products this year in Malawi (73,921) and Zambia (34,053). 564,000 more people have access to clean and affordable energy because of our SunnyMoney distribution networks.

In Zambia, this has been achieved by our network of over 220 agents. In Malawi, this is due to the efforts of the 36 locally owned Energy Businesses we have seeded and the 150 Mayi Walas, groups of women entrepreneurs, who help extend those businesses into deep rural areas.

89% of customers live in rural communities and 98% of them have reported an improvement in their quality of life. From throwing out their candles and battery-powered torches, their energy spend is now reduced to \$3.20 per week – an incredible 95% saving.

86% of these households now feel safer after dark as they no longer have to burn open flames inside and because many can also use their product as a security light.

For the children, 98,000 are now studying safely after dark.

## PILOT PROJECTS

SolarAid has also seen some significant impacts from our pilot projects designed to test innovations for the continent. There are two to highlight in particular:

### Light a Village

This energy-as-a-service project, designed to remove the risks and cost burdens of owning a Solar Home System (SHS) for the poorest households, is now reaching 2,500 households.

A study from the first pilot of 500 households has shown that 97% of the community lives in extreme poverty with zero grid access. The goal is to reach 100% of households. This will be achieved when the pilot is completed, but we already see 99% penetration in one village.

Customer feedback is very positive, with 97% of customers very satisfied or satisfied with the service provided. 97% say they will still be using the service in five years' time.

Daily usage (based on daily payments) is at 89%. This enables families to make a 12% saving on their energy spend. Considering this is switching from predominantly grass, candles and battery-powered torches to a powerful solar system, this is a real success.

Mobile phone usage has drastically increased due to the phone charging capabilities of the systems, and the community also rallied together to provide the area's ten schools with the service.

These results are effectively feeding into a viable business model we are designing to be publicly financed across sub-Saharan Africa.

## Repair and restore

Our decentralised repair project is also showing some great impactful results, which will serve the wider off-grid energy sector to address the growing e-waste problem.

Our project showed that just 11% of customers discard their non-functioning products due to people's hope for repair and sentimental attachment. This is compounded by the fact that when we had the opportunity, we could repair 91% of these products. Extrapolating this further out means there could be 110 million solar products in Africa that could be repaired today.

Of the 1,094 products we repaired this year, the most common fault was the battery (69%). Replacing the battery, or addressing the other simple faults, means an e-waste reduction and extends the lifespan of each product.

Customers reacted to this, and the number who would consider local repair services doubled from 43% to 85%, and the number of customers who would try to repair their solar products reduced from 25% to 2%.

These figures present an opportunity to address this serious issue, which we are continuing into next year by testing the viability of these models for commercial adoption.

# 22/23 IN NUMBERS

**107,974**

**SOLAR LIGHTS  
DISTRIBUTED**

**292**

**SOLAR ENTREPRENEURS**



**FEMALE SOLAR ENTREPRENEURS\***

**36**

**LIGHT LIBRARIES**

**2150**

**MAYI WALA WOMEN  
SOLAR ENTREPRENEURS\*\***

**2873**

**SOLAR LIGHTS  
REPAIRED**

**925**

**KM TO FURTHEST  
LOCATED ENTREPRENEUR\*\*\***

\*88 out of 292, excluding 2150 Mayi Wala women solar entrepreneurs

\*\* In Malawi

\*\*\* In Zambia

# WHY WE EXIST

**Global uncertainties paired with the effects of the pandemic has slowed down the acceleration pace of energy access in sub-Saharan Africa with the poorest and most remote regions being left behind. To break down barriers of accessibility and affordability with must keep innovating to find new routes to universal energy access by 2030.**

## WHAT'S HAPPENING GLOBALLY?

Between the years 2010 and 2021, 51 countries achieved universal energy access and global access rose from 84% to 91%. This positive and upward trend was seen across the globe.

However, population growth, the continued impacts of COVID-19 and the war in Ukraine, together with related energy crises has significantly slowed down the acceleration pace over the past years – and the poorest, most remote communities in sub-Saharan Africa are being left behind. This impacts poverty reduction, education levels, gender equality and in large, remains a barrier to socioeconomic development.

Looking towards the future, access to energy in 2030 is now predicted to be 92% – leaving about 660 million people still without access, of these people, 85% are predicted to be in sub-Saharan Africa.

## THE CHALLENGES AHEAD

While the rest of the global South are still on a positive trajectory towards reaching universal access rates, with more than 98% currently having access, sub-Saharan Africa remains stagnant, with a large gap between rural and urban areas. In fact, in 2021, 80% of people living without access to electricity were in rural communities.

However, patterns of energy access across the continent differ, and each country comes with its own challenges. But the two biggest challenges remain consistent everywhere: affordability and accessibility. For example, Malawi is rated the fourth lowest in energy access in the world. With only 5% of people in rural areas having access, and poverty rates in the country reaching 71%, it's one of the most impoverished countries in the world, making affordability a challenge.

Whereas in Zambia, a vast and sparsely populated country, availability of solar lights in inaccessible areas poses a great challenge, as costs related to bringing products to rural areas is a barrier.

With Africa warming at a faster pace than the rest of the world, climate change is posing a new set of challenges to these populations and communities – from prolonged droughts, to increased and more severe natural disasters, destroying ecosystems, societies and economies, further cutting off remote communities, increasing food insecurity and affecting human health.

Therefore, to reach universal access by 2030, off-grid renewable energy solutions will continue to play a key role, but we must keep innovating to break down barriers of accessibility and affordability to fast track universal energy access by 2030.



# OUR WORK IN ACTION

The market for selling and distributing solar solutions to reach millions of households across the continent is growing. But it is also widely recognised that business as usual approaches are struggling to reach the poorest people. However, the reality is that with many commercial actors struggling to survive, they cannot be expected to prioritise customers living in poverty if this jeopardises their own business model.

That's why SolarAid is directly responding to this need. We are working in partnership with rural communities and key stakeholders to develop and test innovative, game-changing models designed to overcome the barriers which prevent the poorest households and communities from accessing high quality and sustainable solar light and electricity. Also, to find ways for successful interventions to be adopted and scaled across the continent.

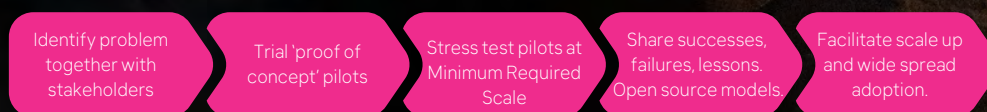
## FROM INNOVATION TO SCALE

SolarAid is focused on achieving impact at scale. Rather than trying to achieve this through scaling our own operations, however, we are focusing on innovation, learning, knowledge sharing and partnerships in order to maximise impact.

The main aim of our projects is to find ways to understand, address and overcome 'market gaps' or 'points of market failure'. Examples of this work include projects which:

- Demonstrate what it takes to reach 100% of a rural population, providing concrete examples of how to achieve universal electricity access in rural communities characterised by high levels of extreme poverty
- Help extend the lifespan of solar products and reduce e-waste by supporting the development of repair infrastructure and capacity within rural marketplaces.

The flow chart below outlines the five steps we follow when seeking to overcome a market failure.



## FROM STRATEGY TO REALITY

Our Light a Village project in Malawi is a perfect example of this strategy in practice. Starting as a small proof of concept pilot serving 500 homes, it is now undergoing 'stress testing' with a plan to scale across a whole traditional authority area.

By operating the model at 'a minimum required scale', we can analyse results, collect evidence and provide a real life practical example of how to achieve universal energy access at scale. Then our learnings will be ready to share with the wider development community, helping to influence agendas and explore the potential to scale across the continent.

# ACHIEVING UNIVERSAL ACCESS

## GAME CHANGING MODELS

For remote communities in sub-Saharan Africa, universal access to electricity is rare. But there is an urgent need to ensure people living in extreme poverty off-grid are not left behind in the energy transition.

To address this, our Light a Village project aims to test new models for distributing and maintaining solar lighting in these remote areas by engaging with the local community, making electricity available to every home through an 'energy as a service model'.

The project began in Kasakula TA, Ntchisi District in Malawi where 97% of customers live in extreme poverty with 0% grid access. After ensuring through the government these areas weren't earmarked for grid expansion in the near future, we collaborated with community leaders, agreeing to trial a pilot project to service 500 rural homes, installing solar home systems for free. This means people receive instant access while paying a fair and affordable price for the energy. In fact, the cost for a family to access electricity in their home is similar to that of buying a single candle to provide light at night.

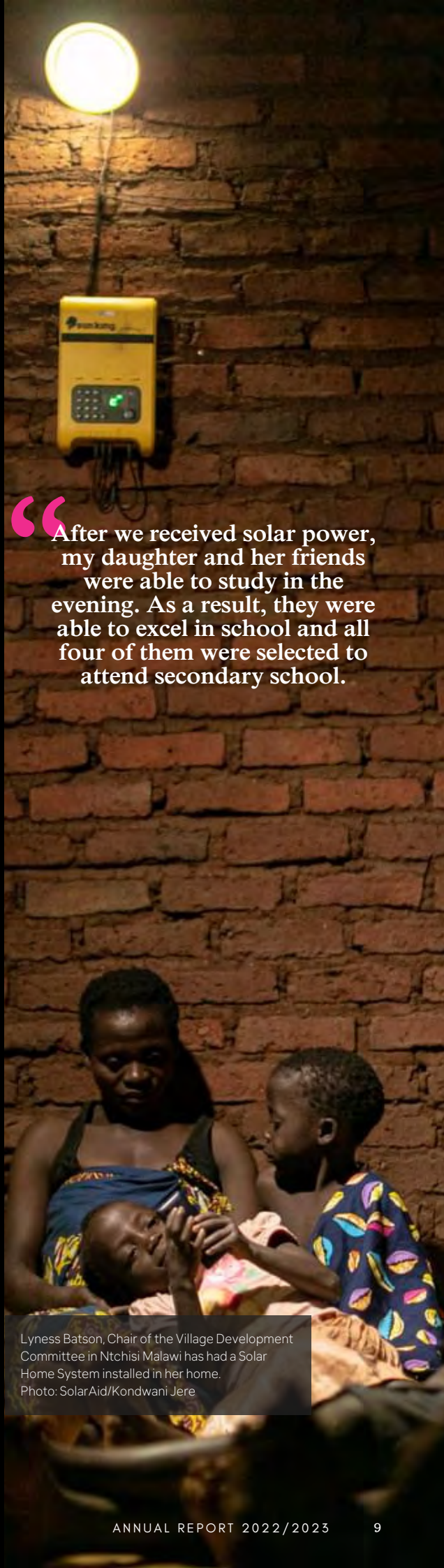
As a result, our approach overcomes two barriers that keep the poorest communities from gaining energy access: affordability and risk management, as customers aren't being asked to invest in a solar home system which may not be up to the job.

We also train local Customer Service Representatives (CSRs) to install and repair the solar home systems creating long-term, sustainable income.

Initially, the first 500 installations led to high usage and payment rates, and the communities asked us to expand the project to include 10 schools. The concept continued to prove highly successful and led to scaling to a further 2000 homes. In the years ahead, we plan to expand across the whole Traditional Authority area and also introduce solar irrigation systems to help power local agricultural livelihoods.

We are actively measuring the percentage of households we are reaching within the project area as key Leave No One Behind (LNOB) metrics. In fact, in some clusters, we are already achieving as high as 99% – having started from 0%.

So, what's next? Now we are sharing the model with the wider development community, building new partnerships to help us analyse results and engaging with global stakeholders to discuss the potential to scale this approach to help reach LNOB populations across new geographies. Watch this space.



“After we received solar power, my daughter and her friends were able to study in the evening. As a result, they were able to excel in school and all four of them were selected to attend secondary school.”

Lyness Batson, Chair of the Village Development Committee in Ntchisi Malawi has had a Solar Home System installed in her home. Photo: SolarAid/Kondwani Jere

# ACHEIVING UNIVERSAL ACCESS

## OVERCOMING FINANCIAL BARRIERS

Affordability is a critical barrier to accessing solar light and power, with low income households struggling to afford solar home systems – in many cases, even small, entry-level solar lights.

SolarAid's innovative Light a Village project directly addresses this affordability barrier by offering access to solar energy through a low-cost fee for service. Some customers may prefer to own a solar light or home system, but being able to afford them is a struggle. However, we know that subsidising the purchase price of products helps overcome the financial barriers many people face.

Therefore, we have been supporting and continuing to engage with key stakeholders to back initiatives which provide subsidy while being careful not to distort the market.

Another way we are addressing affordability barriers alongside this work is through our Light Libraries. Light Libraries make solar lights available through rural schools and are one tool we use to help enable low income students to access solar lighting. Over the past year, together with our partners in Malawi, we helped establish 36 Light Libraries where students can rent solar lights for less than a penny, or choose rent-to-own options which are also available. In Madagascar, we have actively supported the implementation and trials of a similar light library concept through a consortium of actors.

We have also been supporting rural solar energy businesses and female solar entrepreneurs known as Mayi Walas (Shining Mothers in Chiwewa, Malawi's national language) to increase access to solar lights and solar home systems within rural communities by offering customers access to flexible low-interest financing, enabling people to purchase systems over extended repayment periods. Over the past year, 1,443 solar lights and solar home systems have been sold through this approach to customers, 500 of these through Mayi Walas in Nkhata Bay – to customers who would otherwise struggle to afford these products.

So how do we measure success? When ensuring no one is left behind, it isn't about the number of solar lights or products that are distributed, but the percentage of a population that has access. This is why we have developed Leave No One Behind metrics which we are starting to use to assess and compare the effectiveness of any intervention in effectively increasing access to electric light and power.



Simon Muchinga from Mansa-Kundamfumu Village, Zambia is one of SolarAid's most remotely located Entrepreneurs. Here seen interacting with his customer Sylvia Kalaba. Photo: SolarAid/Jason J Mulikita

**“What motivates me is the change I have seen in my area because of lights from SunnyMoney. It's the improvement in my living standards. I am now able to fully support my family with daily needs.”**



Miriam Chikoya, Solar Entrepreneur, Kabwe-Kalebwe village in Zambia interacting with her customers. Photo: SolarAid/Jason J Mulikita

# SCALING UP ENTERPRISE

## FINANCING ENERGY BUSINESS

Last-mile distributors of solar products often struggle to access the finance they need to purchase more solar lights and systems, expand their solar businesses and reach more customers. As a response, SolarAid has partnered with Lendwithcare, a financial initiative of poverty fighting charity Care International UK, to test different mechanisms to help overcome these challenges.

In Malawi, we created and continue to support the Financing Energy Business Cooperative. FEBCO is operating as the first ever energy cooperative designed to enable solar distributors and agents to access low-interest working capital so energy businesses can expand their product portfolio and reach more customers.

To date, there are now 4,104 FEBCO members, enabling 36 energy businesses to access loans totalling over 12 million Malawian kwacha over the

past 12 months (2022/23 period), with an average loan size of 124,000 Malawian Kwacha.

In terms of actual products, the cooperative has provided the working capital behind the sale and distribution of 68,005 solar products.

Similarly, over the same period in Zambia, we extended our new credit facility to 62 solar agents serving rural communities across the country. Here, FEBCO has provided loans ranging from 700 Zambian Kwacha up to 21,750 Zambian Kwacha – that's the equivalent of loans ranging from £27 to £850. Whatever the amount, together these loans have made a huge impact, increasing solar light and system sales in Zambia by an estimated 400%.

This work clearly demonstrates the ongoing need for low-interest working capital to be made available locally, in local currency, to help local enterprises to expand. It all adds up to increasing access to solar light and power for even more rural customers.



Solar lights being installed by the SunnyMoney team in Kenedy Buleya's house in Tambalasa Village, Malawi. Photo: SolarAid/Kondwani Jere

# POWERING COMMUNITIES

Since 2006, SolarAid have been installing solar systems on rural schools, community centres and health facilities. Once each system is installed, rural institutions start to benefit immediately. However, now the real challenge is finding ways to ensure that systems remain operational in the long term.

Together with the University of Mzuzu in Malawi, SolarAid conducted research which revealed that a high proportion of solar systems installed on public institutions fall into disrepair. The key reasons for a system's premature failure includes a lack of access to trained technicians and the prohibitive cost of specialist system components, as well as limited access to these parts.

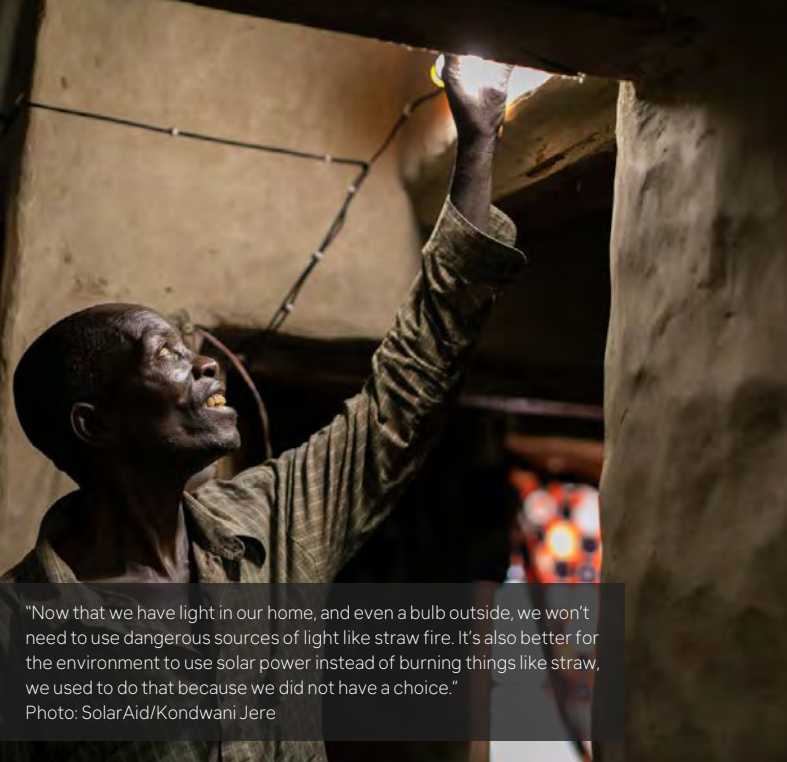
Now, with costs falling and the availability of 'plug and play' solar systems which need limited maintenance, SolarAid has been continuing to help light up rural schools and health facilities in Malawi and Zambia.

By using smart metering technology, we are able to monitor the performance of these systems and provide remote support when a system fails.

We have also been testing a new Energy-as-a-service based model over the past year. This is enabling local energy businesses to bring light and power to rural schools, lighting classrooms and staff buildings, as well as receiving monthly payments to ensure systems remain fully operational.

Next, we plan to expand this model to include rural health facilities, while also working with governments, commercial actors and development partners to explore ways through which this approach, which overcomes traditional causes of premature system failure, can be scaled across the entire continent.

Every institution will help us get closer to reaching our goal: to light up every home, school and clinic in sub-Saharan Africa by 2030.



"Now that we have light in our home, and even a bulb outside, we won't need to use dangerous sources of light like straw fire. It's also better for the environment to use solar power instead of burning things like straw, we used to do that because we did not have a choice."  
Photo: SolarAid/Kondwani Jere

# LIGHT A VILLAGE

## KENEDY AND HILIDA'S LIFE WITH LIGHT

When day breaks in Tambalasiwi Village in Malawi, 35-year old Kenedy Buleya's children start sweeping and cleaning, while Kenedy and his wife Hilida go to the fields to farm.

Taking advantage of daybreak has always been important in Kenedy's village. Due to the lack of electricity, nights were long and dark. Kenedy and his family used paraffin candles or straw fire for light, which were dangerous, toxic and sometimes hard to come by.

"When it is dark here, I am in big danger because at night there are a lot of things moving around. We fear, because it is dark. Maybe we may meet fierce animals such as snakes and hyenas too. We feel terrified."

Alongside his family's safety, Kenedy also worried about his children's education. As a child he himself had to drop out of school. Seeing his children face the same destiny pained him: "Inside my heart I feel so disappointed, because a child needs to study. However, because of poverty, that is why the children struggle in their heart, even myself I struggle inside, to say that how can I find light so that the children can perform well in school?"

But recently, this all changed. With SolarAid's programme Light a Village, Solar Home Systems have been installed in all the houses in the area creating a tapestry of light across the village.

Kenedy recalls the first night he flicked the switch, "It was like magic. We were all so happy and excited to finally have light in our home. It was a beautiful moment for all of us. I felt so happy and proud to have this opportunity at last."

Kenedy found himself immediately getting to work the first night with light, "I'll be able to work on my farming projects even after the sun goes down. This is really going to make a big difference in our lives (...) my hope is that this will help to bring more development to our village. With light in our homes, we will be able to do more things at night and be more productive. This will help us to improve our lives and our community as a whole."



**"I think solar power is really good for the environment. It doesn't contribute to climate change like other sources of energy do. I think it's a really great technology, and I'm happy that it's being brought to our village."**





# CIRCULAR ECONOMY

Solar lights being repaired at the Repair Days in Kapiri Mposhi, Zambia. Photo: SolarAid/Jamiel Banda

SolarAid has long recognised the importance of ensuring off-grid solar products can be repaired, reused and recycled. This maximises product lifespans and customer value for money, while also minimising the growing e-waste problem.

This is why, alongside rural communities, solar entrepreneurs and technicians, we developed projects to identify and overcome barriers which limit the availability and repair of solar light systems for people living in off-grid areas.

Over the last year, our Solar Saver project in Zambia helped identify these issues:

1. Customers have limited access to trusted repair technicians
2. Technicians lack access to repair manuals, spare parts and tools
3. Not all solar products are designed to be repair-friendly
4. The recycling infrastructure for reducing e-waste is limited

We also learnt that most customers keep damaged or non-functioning solar products, hoping that they can be repaired in the future.

During this project, local technicians successfully repaired over 90% of the solar lights and systems (including finding a way to repair a product that had been designed to ensure it cannot be opened, which had made it unrepairable in the traditional sense).

To help increase access to technical knowledge, as well as develop best practice guidance, we have developed an open source repair App. This tool is designed to help technicians across the continent to troubleshoot and repair leading solar products on the market.

SolarAid is also calling on the sector to prioritise repair, to help build last mile repair capacity and support improved enabling environments to facilitate widespread affordable access to quality spare parts.

Alongside these calls to action, SolarAid will continue to test the economic viability of a range of business models focused on localised solar light and system repair, offering pathways to de-risk the off-grid solar sector's engagement with repair activities.



"Electronic waste can be dangerous to the environment, especially batteries. I would want to teach my fellow Technicians on proper disposal of electronic waste." Photo: SolarAid/Jamiel Banda

# A SECOND LIFE TO LIGHT

## MEET TECHNICIAN RODGERS AND HIS CUSTOMER, PEGGY

With 2.3 million solar lights distributed across sub-Saharan Africa, SolarAid is exploring how repair can help reduce electronic waste and upskilling local Technicians can contribute to circular economy.

Rodgers Mwamba is one of the Repair Technicians in rural Zambia who has been trained by SunnyMoney to repair solar lights. "I heard about the opportunity from SunnyMoney staff who approached me at my shop here in Kapiri Mposhi, asking if I would be interested in being a Repair Technician. I love and enjoy what I do. The job of a Technician is not seasonal as appliances can get damaged or may need repair at any time."

Rodgers bought his first solar light at a repair workshop where he learned the most common issues and how to prevent them. "Solar is actually a good renewable source of energy, the issue comes in when people become careless, like leaving the solar panels or the entire light in the rain. Such would damage the panel and the light with some ports becoming faulty."

Rodgers's customer, Peggy Hamalambo, is a teacher who has been using solar lights at home for three years: "The light just stopped working and I felt bad, so I kept it safe until now that you have come to do some repairs."

Rodgers is motivated by his happy customers when their light has been repaired saying, "What I love about this job is seeing things that weren't working come back to life, it brings me joy and satisfaction."

Rodgers sees a bright future ahead: "In terms of my business, I hope to grow, especially with SolarAid. My hope is for SolarAid to continue offering the technical support we have been receiving so as to continue servicing the many customers in these areas. With continued support, we will do and achieve more."





# OUR WORK IN THE UK

Our UK team work hard to raise awareness and funds. Here are a few moments that shone particularly bright in 2022.

## GETTING TO KNOW OUR SUPPORTERS

Without our brilliant supporters, we simply couldn't do what we do. So we took on a wonderful project, including interviewing some supporters, to understand their motivations and needs.

## RE-LAUNCHING THE SOLARAID SHOP

Thanks to amazing volunteers, we relaunched our SolarAid shop with a shiny new storefront. The shop is an important part of work as every solar light bought, helps get lights into the hands of people who need them most.

## MEETING PEOPLE AND FAMILIES

We want supporters to know the people on the other end of their donation. That's why we meet families who are now living with clean, safe and affordable energy to hear their stories.

In Zambia, we met some of our most remotely located solar entrepreneurs like Penny, Simon and Rhoda. It took us days to get there – yet it takes our entrepreneurs even longer to deliver solar lights by bike or foot. We also returned to Ntchisi in Malawi to meet Kesilina, John and Goodwell. They had all experienced fire related accidents in their homes, so it was truly joyful to visit again a year after they had solar lighting.

## A DEEPER UNDERSTANDING

We launched a series of webinars for supporters who want to dig deeper into the technical intricacies of our work. It's been valuable to discuss learnings and connect with brilliant minds.

## NOMAD AND LIGHT IN A BOX

This year, some of the fantastic companies and organisations who support us went beyond monetary donations. Thanks to Nomad Exhibitions, we have been very proud to take our beautiful interactive exhibition stand on the road. Also, a special thank you to Bird Sunglasses who helped deliver the full experience of solar light in the post with 'A light in a box', taking supporters on a journey as they unbox one of our lifesaving solar lights.

## CELEBRATING OUR SOLAR LIGHTS

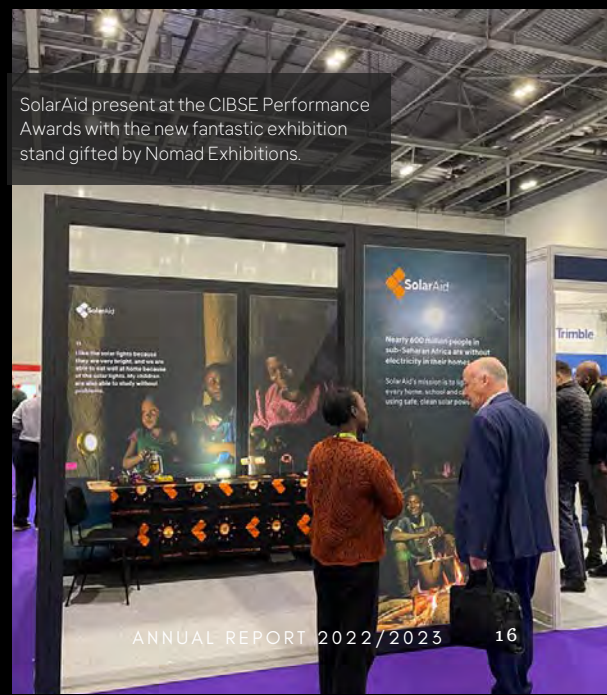
On International Day of Light, we shone an extra bright spotlight on our small solar lights and their huge impact. We also launched our Light Library appeal, sharing stories from children like Fabriola, Dalitso and Rhoda who live in Malawi, combining photography and illustration to show how a solar light can accelerate a child's dreams for the future.



The SolarAid team at the London office.  
Photo: Alastair Fyfe



The SolarAid team learning more about our work on the ground on a Programmes day in London.



SolarAid present at the CIBSE Performance Awards with the new fantastic exhibition stand gifted by Nomad Exhibitions.

# POWERED BY PEOPLE

## REMEMBERING AN INSPIRATIONAL SUPPORTER

At the start of 2023, the first donations started coming for long standing SolarAid supporter, Keith Neal's latest fundraiser initiative. Keith had committed to raise £3,000 for his local church, Friends of the Earth and SolarAid by litter picking three miles every day in return for donations – encouraging others to join him!

Sadly, Keith passed away in April 2023. But people continued to donate in Keith's memory, passing his fundraising target within weeks.

From the moment he heard about SolarAid 10 years ago in 2013 when he listened to our very first BBC Radio appeal, Keith became a solar advocate. Since then, he's been doing talks on our behalf, even getting SolarAid involved in a peace initiative in Kenya and helping tackle Ebola in Sierra Leone through our solar lights.

Keith was a brilliant fundraiser and directly raised £19,901 to SolarAid over the years, selling solar lights and attracting many new supporters. Keith went out of his way to support our work and was a very special person to SolarAid.

Now as we approach 2024, it seems fitting that SolarAid will have another BBC radio appeal. We know Keith will be listening in.

## GRANTS THAT SEED INNOVATION

Grants from trusts and foundations are critical to the early stages of many of our initiatives, as well as donations. The Turner-Kirk Trust supported the first phase of our Light a Village initiative (see page 10) and committed to match fund donations to the second phase. Despite this being an innovative approach that had a risk of failing they were willing to back SolarAid.

## FUNDRAISERS THAT SURPRISE US

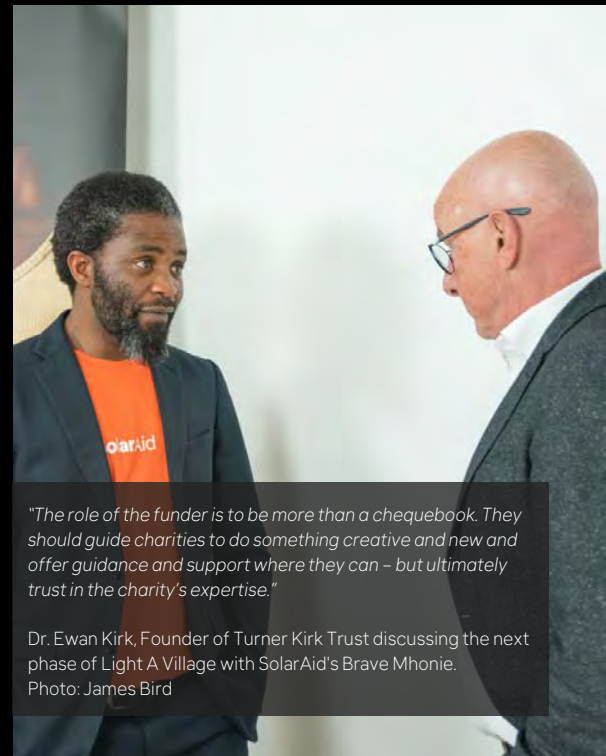
Fundraisers this year have been just about anything – from a sponsored tattoo by Richard Lowes, a virtual marathon by Steve Phillips and an ultramarathon through the desert by Jon Cross, to an afternoon garden tea party in the Sun by members of Soroptimists International and a walk in the dark by the staff of Astro Lighting. All very different, but one theme encompasses them all – they surprise and delight us every time!

## THE YEAR IN NUMBERS

- Number of individuals donating to SolarAid each year 1,645 – if you are one of them, thank you!
- Income from donations, fundraising and grants: £1,775,414
- Number of grants received: 55
- Average grant awarded: £7,771.



Keith Neal litter picking three miles every day in return of donations to his local church, Friends of the Earth, and SolarAid.



"The role of the funder is to be more than a chequebook. They should guide charities to do something creative and new and offer guidance and support where they can – but ultimately trust in the charity's expertise."

Dr. Ewan Kirk, Founder of Turner Kirk Trust discussing the next phase of Light A Village with SolarAid's Brave Mhonie.  
Photo: James Bird



"Donations become real life, life-changing clean energy".

SolarAid supporter Richard Lowe who works in sustainable energy policy and raised £1,000 by getting a sponsored tattoo.

A close-up photograph of a hand holding a white, circular solar panel against a reddish-brown wall. A black cable is attached to the top of the panel. The background is dark and out of focus.

# ACCELERATING WITH STATKRAFT

In 2022, Statkraft (Europe's largest supplier of renewable energy) provided a £500,000 donation to SolarAid as part of its multi-year commitment. This has given us both funds and the backing to accelerate our new strategy.

Statkraft also actively advocates for SolarAid to the renewable energy sector. In fact, their introduction led to a commitment to us from EDF Energy for the Light a Village initiative resulting in £40,000 being raised for the project, and the possibility of future funding.

As well as financial support, Statkraft are promoting SolarAid at community engagement events in the UK, and their social media teams across Europe continue to help amplify the SolarAid message.

In November 2022, Statkraft welcomed Brave Mhonie to Oslo. Brave is our Country Manager for Malawi and he was invited to address and inspire staff from the European Division as part of a week long conference.

“Solar power is a simple and cost-effective solution for those who have no choice but to rely on expensive and toxic kerosene or dangerous candles. We are delighted to be working with a charity with such a critical mission.

Christian Rynning-Tønnesen, CEO, Statkraft



Brave was indeed sensational, and their talk was one of the highest scoring of the week. Afterwards, Brave went on to speak to staff in London.

“This extraordinary donation is helping us fast track access to solar energy in remote communities vulnerable to the climate crisis across Africa. We are on the cusp of making history together, and we are proud to have Statkraft as our strategic partner by our side,” says SolarAid CEO John Keane.



# THE YEAR AHEAD

Although 150 million solar products have been distributed over the past decade, there are virtually no examples of universal access being achieved with rural off-grid communities where people are living in extreme poverty. SolarAid will step up to this and many other challenges in the year ahead.

For schools and homes in rural Malawian communities with high levels of poverty, we will provide smart solar home systems enabling access to electricity through an Energy-as-a-Service model. As we stress-test and develop the systems needed to operate this model at greater scale, our goals are to achieve universal access to electricity in focused project areas, providing the much-needed examples for the wider off-grid energy sector.

## We will continue to:

- Support last mile energy businesses serving rural communities, and projects testing the use of innovative solar powered battery rental models, helping people living in poverty to access power
- Develop subsidy trials designed to overcome financial barriers to access and help reach 100% of rural households
- Engage with communities and run trials to increase our understanding of how electricity can be used to support rural agricultural livelihoods
- Work with rural healthcare providers to test and offer access to solar power through Energy-as-a-Service models

To track and assess the effectiveness of interventions so we can demonstrate achieving 100% access, we will implement projects designed to fast-track progress towards universal energy access using our new Leave No One Behind metrics.

We will also build on our work to support the development of repair best practice and the release of our free Repair App, which is being used by Technicians across the continent to help repair leading solar lighting products. To support this, we will publish a Repair White Paper to highlight challenges and outline the key steps that need to be taken to grow a vibrant repair economy serving solar customers across the continent.

Recent years have also seen us develop and test models designed to reach populations underserved by ongoing market activity. As we continue this work, the year ahead will see us actively sharing results, know-how and lessons learned to facilitate wider adoption of approaches and metrics to help fast-track progress towards universal energy access across the continent.

In short, this will be another year of getting even closer to reaching our goal of lighting up every home, school and clinic in sub-Saharan Africa by 2030.



The Mayi Wala group 'Kuwala' in Mponela, Malawi welcoming the SunnyMoney team with singing and dancing.  
Photo: SolarAid/Haley Withers

# THANK YOU

WE WISH TO THANK ALL OF OUR SUPPORTERS IN 2022/2023, INCLUDING OUR INDIVIDUAL SUPPORTERS, AS WELL AS THE FOLLOWING:

**AEONIAN FOUNDATION**

**ASTRO LIGHTING**

**BIRD AND BIRD LLP**

**BIRD SUNGLASSES**

**EDF ENERGY**

**ELENEO**

**ERM FOUNDATION**

**GIZ**

**GOOD-LOOP**

**HCD MEMORIAL FUND**

**HELEN + MICHAEL BROWN CHARITABLE TRUST**

**ICG**

**LOTTOLOVE**

**MEAVO LTD**

**NEXTENERGY FOUNDATION**

**NOMAD EXHIBITIONS**

**THE CALUMET TRUST**

**THE COLES-MEDLOCK FOUNDATION**

**THE EQ FOUNDATION**

**THE HICKEY FAMILY FOUNDATION**

**THE MARGARET HAYMAN CHARITABLE TRUST**

**THE STEP-UP FUND**

**THE Q CHARITABLE TRUST**

**TURNER KIRK TRUST**

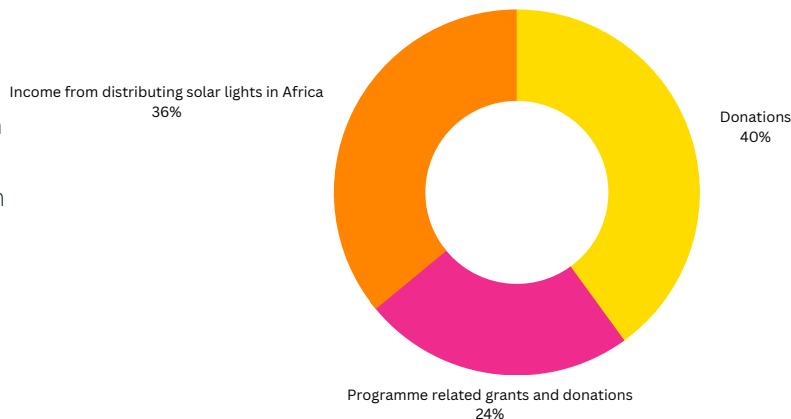
# FINANCIAL SUMMARY

## INCOME

Our total income in the financial year 2022-23 was £2.8m. This compares to the 2021-22 income total which was also £2.8m. In 2021-22 we had received £1m from our largest donor, Statkraft, as part of a three-year agreement to donate a total of £2m to SolarAid. In 2022-23 the amount received was £500k but despite this, the total income level remained the same as a result of increases in fundraising income from other sources. Our supporters continued to be generous and individual donations continue to provide a bedrock of income, with donations rising by 45% compared to the previous year.

In addition to the increase in fundraising, our income from sales of solar lights to remote communities increased by 67% to £1,015k. We are grateful to the hard work our teams have put in to achieve this.

82% of our income in the financial year is unrestricted compared to 90% in the previous year. This allows us to focus on developing innovative models to reach communities. As we are able to demonstrate more evidence from their success we expect to attract more restricted income from grant funders.

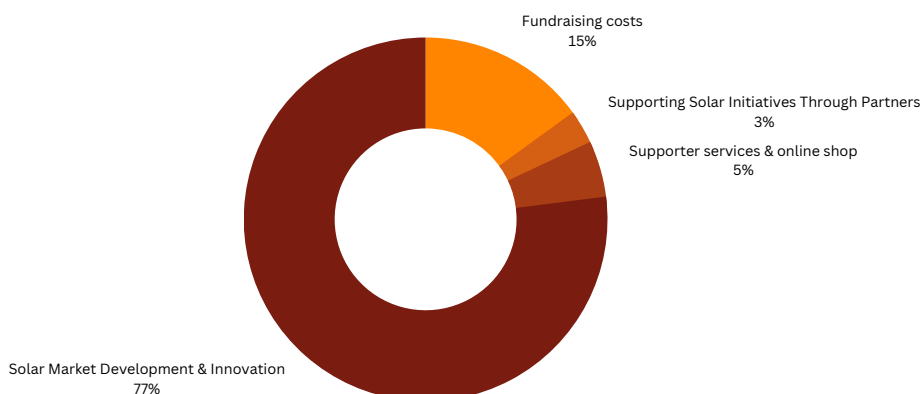


## EXPENSES

Our total expenditure in the financial year 2022-23 was £3.3m. Our total expenditure increased by 37%. The increase in expenditure is in line with investment in both fundraising and programme activities as part of our new strategic plan to achieve our ambitious mission, and linked to the Statkraft (and previously SolarCentury) transformational donations.

We break down our expenditure between Raising Funds and Charitable Activities. Within the cost of Raising Funds: Fundraising costs increased by 29%, whilst Supporter services & online shop increased by 93%. The investment in fundraising will allow us to grow our income to levels that support long-term financial stability and fund our part of the mission to light every home, clinic and school without electricity in Africa by 2030.

Within the cost of Charitable Activities: Solar market development & innovation costs increased by 42% and Supporting solar initiatives through partners was an area that had significant investment last year and therefore costs this year decreased by 31%. This report covers the progress of our programmes and our work with partners.



## RESERVES

Reserves are held by the charity for working capital purposes, to allow us to invest in our long-term mission and to help us protect against volatile currencies and inflation risk.

The Trustees set a reserves target after considering the resources needed and risks faced by the organisation. Our minimum reserve levels are currently calculated at £0.7m. The charity has free reserves of £0.9m. The Trustees consider our reserves level to be appropriate and reflect the need for maintenance of sufficient working capital to operate in an uncertain environment as SolarAid continues its strategy of developing replicable models in support of the goal of lighting up every home, school and clinic in sub-Saharan Africa by 2030. This has implications on the cost base of our current programmes and support functions. As referred to above, we successfully secured a three-year commitment of £2 million from Statkraft - £500,000 was received during the financial year with a final £500,000 received after the year end in August 2023. More information about our financial performance for the year can be found in our Annual Report.



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