



2021 Report



Preface

A building year.

Our second year has flown by. It feels like it has been some kind of ‘building year’, but I also realize every year will feel as a such, because one builds on what has been created and achieved in the past.

We have built on our first lessons learned from our first projects. We have continued to successfully

involve new Partners: an absolute key for us as we have taken a route where our financing depends on many involved and committed Partners, rather than a couple of large grants. We have built by hiring our first employee: Myson. Something I am personally very happy with, as this made us double our ‘capacity’ at once.

Covid has still been prevalent and a strong limiting factor, but it hasn’t stopped us from taking steps forward every day. While we have achieved the completion of several projects – you’ll find these

on the next pages – we have also invested a large amount of time in learning and preparation of new projects that we expect to commission in the first part of 2022, after rainy season. Despite all challenges this year has brought, overall we have seen the impact of our projects first hand: the confirmation we are on the right track to apply ‘solar where it matters most’.

Stefano Cruccu
Founder & Director

A handwritten signature in black ink, appearing to read 'Stefano Cruccu', written in a cursive style.

1/3rd

of the world population has no access to safe water.

+800 million

suffer from hunger or food insecurity.

50%

of the world population has no access to basic health services.

770 million

of us live without access to electricity.

Vision

Our 'Why'

One of the keys to solving some of the most essential problems we face in this world, such as lack of clean water, food insecurity, and lack of basic healthcare, is the access to reliable electricity. In other words: electrification through solar power unlocks opportunities in the most challenges places on our planet.

Mission

Our 'What'

The above translates into our mission:

'Solar where it matters most'

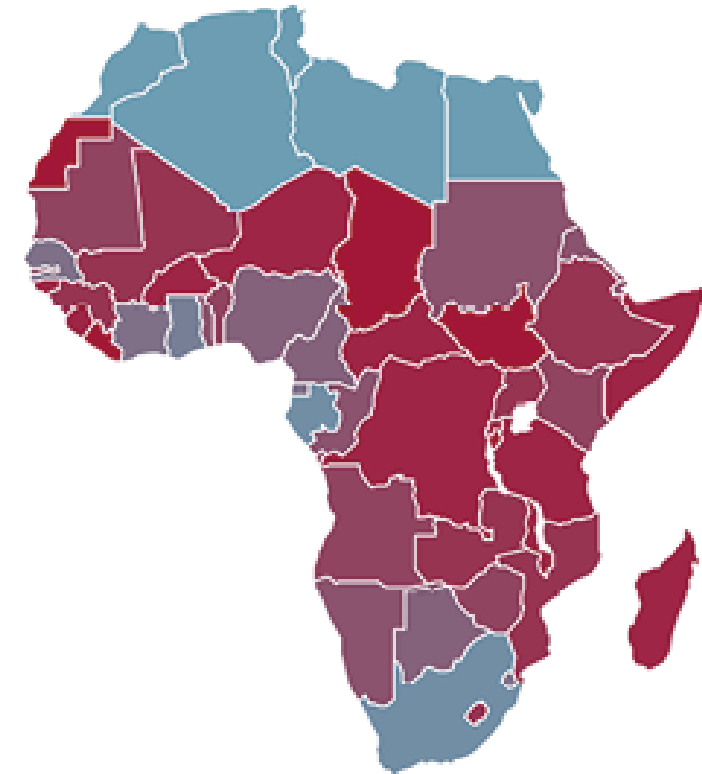
We aim to provide a sustainable solution by applying solar power where this empowers life-changing initiatives that make a tangible difference.

Why Malawi as a starting point

The electrification problem

In many places on our planet, we are used to constant access to very stable electricity. This is at the core of developed societies and enables all kinds of elements that together create the wealth and wellbeing one gets so easily used to. If we grow up with the light that turns on every time we use the switch, it's truly hard to imagine the impact of not having access to (reliable) electricity. Unfortunately, nearly 800 million of us have no, or little, access to electricity, with all the limitations and challenges this brings.

As can be seen from the maps on this page, the problem is concentrated in the sub-saharan region, with the color-scale indicating the percentage of population with access to electricity. Besides being one of the poorest countries in the world, for Malawi this figure is still shockingly low, especially in rural areas: around 5%. This makes it a very 'suitable' context to start pursuing our mission: solar where it matters most.



Source: World Bank, Sustainable Energy for All Database





Focus

on three fields of impact.

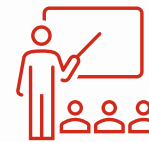
The options for application of solar power are endless. Based on our research, observations and real-life experiences we have defined three areas where we see that electrification through solar (Photovoltaic) energy makes profound impact: **Healthcare**, **Education** and access to **Water**. The solar systems we implement make a difference in at least one (but often several) of these areas.



Healthcare

Electrification of rural medical facilities that are limited by the lack of (reliable) electricity.

Our projects in this field link the UN SDG 7 and 3.



Education

Powering light and appliances at initiatives that enable education, training or entrepreneurship.

Our projects in this field link the UN SDG 7 and 4.



Water

Solar powered water pumps that enable running water or improved irrigation and crops.

Our projects in this field link the UN SDG 2, 7 and 6.

Our approach

for long term impact

There are many operational risks related to solar systems and through our experience we have developed a deep understanding of these. Making a solar system work optimally, for the long term, doesn't come without challenges. It requires an approach that is not only focused on achieving the implementation of a system, but equally on making sure the right conditions are in place for long term, successful functioning and impact.



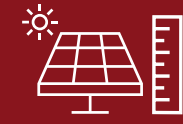
1. Project selection

We carefully select local projects/beneficiaries based on our criteria, in combination with assessing the urgency for – and impact of – electrification.



2. Research

We further research the needs, the community, conditions and electricity demand, to determine priorities and assess how funds can be allocated in the most effective way.



3. System design

We are involved in the design and engineering of the solar system by the local installers. We agree on the components to be applied and determine costs of the installation as well as maintenance.



6. Monitoring

At commissioning of the system, we make sure a maintenance contract is in place between installer and the local project. Education & training takes place and security measures are adopted. We keep track of the impact of our systems through the ongoing relationship with the local project, as well as through a monitoring system/process .



5. Implementation

When the implementation of the system takes place we are on-site to learn, to oversee the installation process and verify progress as well as quality of the works.



4. Funding

For each project we launch a Crowdfunding campaign which enables individual donors to contribute. 100% of these donations are used for implementation of the system. This source of income is combined with the financial support coming from our Partners..



Results summary

Our achievements in 2021

2021 has been a year in which we achieved further impact by implementing and completing three projects. A significant part of our time has been in learning and preparation for new projects, which will reach completion in the first part of 2022.

5.790 children

benefit from **better education** opportunities.

190 children

now have **clean water** from the tap.

14.800 people

now have access to better **basic healthcare** services.

Luntha Clinic

Powering medical care



2.4kW PV, 5kWh
Li storage, 4x
30W solar-lights



Costs of
€9.000



Golomoti,
-14.300767,
34.534326



Commissioned
March 2021

Background and challenge

This rural clinic is strategically positioned at the road that connects the Golomoti and Mangochi areas of Malawi. The clinic has been founded by a doctor that grew up in this area, after running his own practice for years in the capital city of Malawi. An inspirational and courageous decision that has come with sacrifices but has led to access to basic healthcare for thousands of people.

One of the key challenges was the lack of power. The clinic was not grid connected and therefore suffered from the implications of this: no equipment that could be used, hardly any medicines and vaccines that could be kept due to a lack of a fridge and no safe environment for the nurses during the night shifts due to the absence of light.

Adopted solution

Just like at our very first project of last year, we have installed a solar power system in combination with battery storage. Also here, this now means that patients can be treated or consulted after sunset, medicines can be stored in a fridge and basic appliances such as microscope and fans make a big difference for who works at- or visits the facility.

Three freestanding solar lights illuminate the square and parking space in front of the clinic at night.

As Dr. Frank put it in one sentence, that says it all: now the solar system is there, there is no more need for candles.





The system under construction



Dr. Frank, the founder of the clinic.



The lighting at the clinic, before solar power.



A completely different experience to visit to the clinic now at night, with light.



Treatment of a little patient at the clinic.

School for the Deaf

Water, hygiene and electricity



3kWp PV, 7.2kWh
battery storage, 2x
40W solar-lights,
water pump & storage



Costs of
€17.000



Dedza, Malawi
-14.274880,
34.511256



Commissioned
November 2021

Background and challenge

Mua School for the Deaf is one of the institutions in Malawi that offer education and accomodation for deaf children. Outside an adapted context like this one, these children do face severe limitations in terms of education, safety, etc. This school (and hostel) were grid connected, but the reality was that the vast amount of time there was no power. This meant that water supply depended on a hand pump outside the premises, It also meant no electricity, in other words: no light. Communicating is hard in the dark for people that can hear, imagine for people that cannot and depend on sign language. Security and safety was a serious issue, impacting the life of these children every single day.

Adopted solution

We were able to change reality at Mua School for Deaf by implementing two solar systems: one solar system that powers an electric pump, which now supplies water to all the taps at the school and hostel. The second solar system provides the facility with stable electricity. This has changed everything, but in particular the fact that the children can feel safer and communicate in the evenings. X security lights illuminate the premises at key points, contributing to an increased safety around the school and the hostel.





Headmaster Pauline: a life in service of deaf children.

Water fetching at the School, before the solar system.



(and above) Kids in class: lessons with sign language are different!

Enjoying the local dish: Nsima.

Road of Hope

Solar power for Education



0.6kW DC pump,
2m3 water tank,
plumbing works



Costs of
€11.000



Nkhata Bay
district



Commissioned
March 2021

Background and challenge

In many places in Malawi (and beyond), one of the limiting factors for the quality of education is the absence of illumination when it's dark. Most rural families do not have light at home, or in the best cases a kerosine light which is both dangerous and unhealthy.

Having a classroom at school where in the evening reading and studying are possible, is of great value, especially as this provides the opportunity for additional lessons or support with homework in the evening hours. Qualitative research carried out on the impact of additional evening classes confirms an increase in study results and exam passing rates.

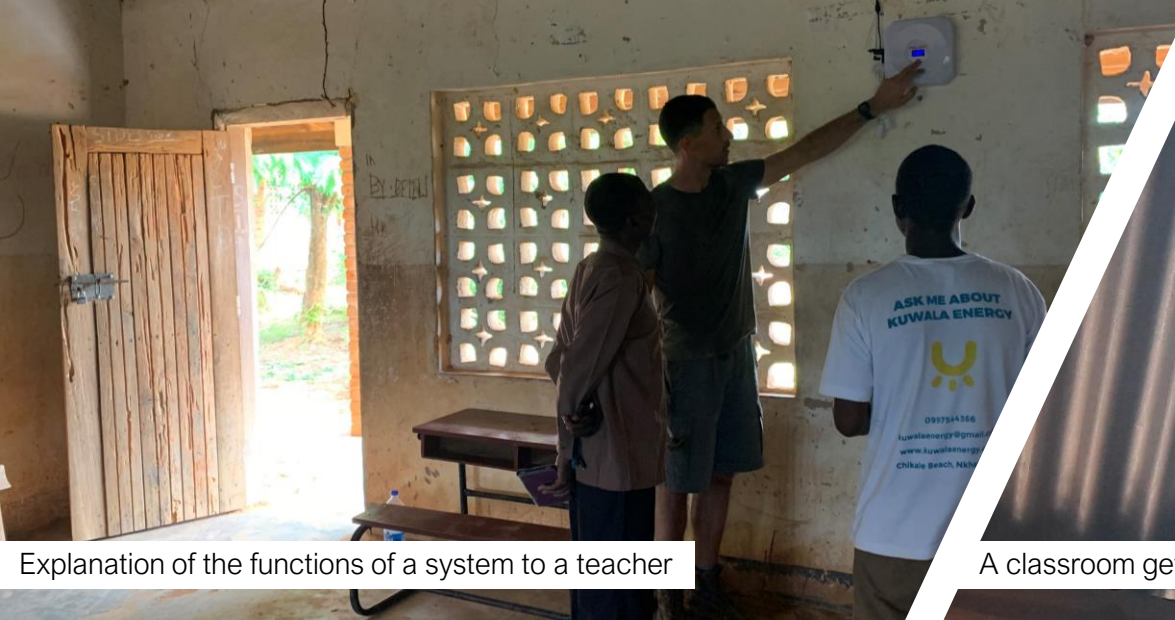
Based on this, together with a local partner and installer Empower Malawi we identified 80 primary schools in the Nkhata Bay district, that were not connected to the electricity grid.

Adopted solution

Based on research of our partner, we understood that providing lighting to a classroom, usually leads to 4 to 5 hours of additional teaching per schoolweek. We implemented small, plug and play 'solar-lighting systems' which contain a solar panel, a battery and four light bulbs, as well as the possibility for teachers to charge their phones and be better connected. These systems are easy to install and hardly require any maintenance, at the same time presenting a 4-5 year lifetime.

Through our local partner, we installed this system at 80 schools, which now provides the opportunity for reading, studying and extra classes for ~5.600 students per year. A particular challenge in this project has been the (very) remote location of some of the schools.





Explanation of the functions of a system to a teacher



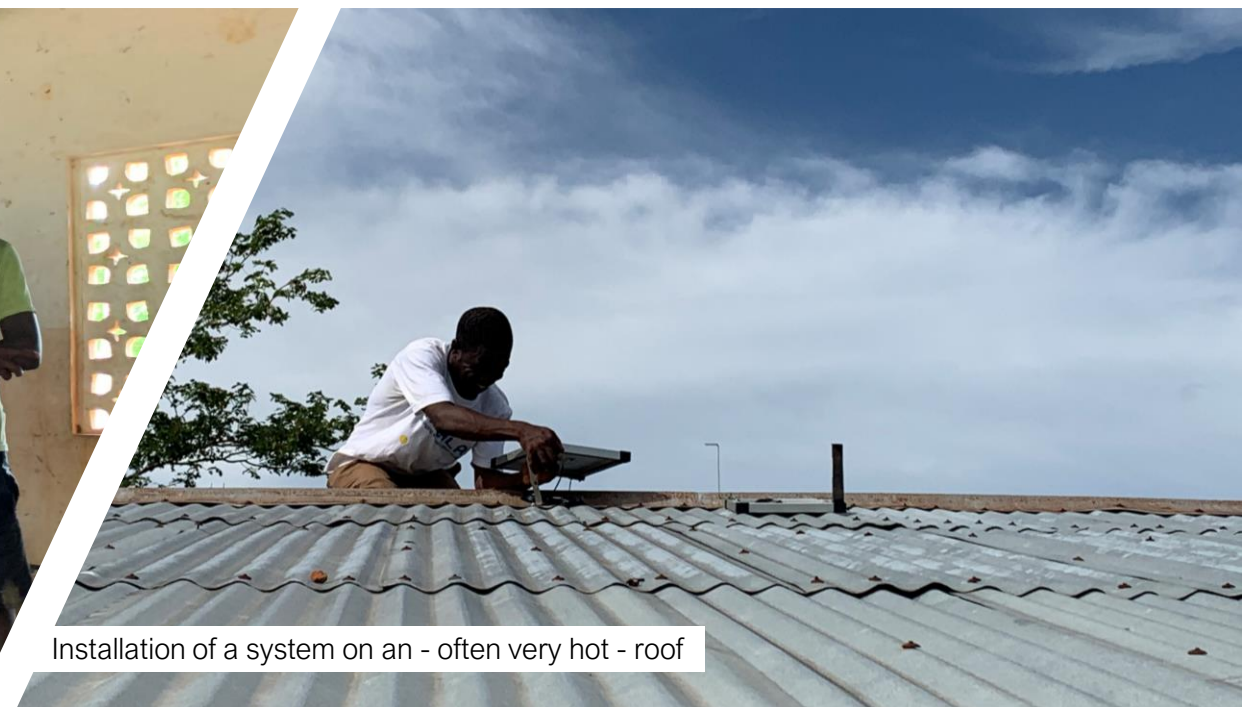
A classroom gets equipped with 4 led lights



Each classroom with a system gets marked



With a group of children, after the installation of a system







Installation of a system on an - often very hot - roof

Our impact

in 2021

The solar power systems we install have an effect on the context in which they are implemented: we call this the impact that is made. To determine the impact, we apply a conservative approach based on the figures provided by the beneficiaries we support. Of course, we check and confirm the numbers and facts as much as is within our ability. This is one of the reasons we do visit the local projects after implementation and remain in close contact with them.

To describe our impact, we refer to the [UN Sustainable Development Goals](#). While our main activity (providing access to solar powered electricity) clearly is in line with goal 7, direct impact is made contributing to the goals 3, 4 and 6.

	Goal description	Beneficiaries in 2021	Impact summary
	Ensure access to affordable, reliable, sustainable and modern energy for all.	20.590 people, from children to elderly, across various places in Malawi.	Through our projects this year, over 20.000 people have found their lives impacted through application of solar energy, in combination with related technology (battery storage, pumping).
	Ensure healthy lives and promote well-being for all at all ages.	Approximately 14.800 people, all age, have now access to better basic healthcare services at Luntha Clinic.	Through electrification of the clinic, people have now access to improved medical care and consultation, with medicines stored on-site, lighting and the potential to benefit from other medical equipment.
	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	An estimated 5.600 children between Nkhata Bay district and Mua, Dedza	Children now benefit from the opportunity for reading and studying at dark, and from additional evening classes.
	Ensure availability and sustainable management of water and sanitation for all.	190 children and teachers at the Mua School for the Deaf in Dedza.	Children and teachers at Mua School for the Deaf now have clean, running water from taps and showers, enabling basic hygiene and drinking water.

Our impact

Cumulative (2020+2021)

These are our impact numbers including 2020.

How do we determine our impact?

For our **Healthcare projects**, we rely on the administration numbers of the Health facility: we base our impact figure on the number of patients assisted in the previous year at a health facility.

For our **Education projects**, we rely on the administration numbers of the School, or educational facility. We double check the number of pupils in classes.

For our **WASH projects**, we rely on numbers provided by the local initiative we support, and/or the local village leadership which has an overview of people that benefit from an intervention.

For our **Irrigation projects**, we base our impact on the families of the farmers (direct beneficiaries) and the number of people that obtain better access to food where these farmers market their harvest.

In general, we always keep a conservative approach to any estimation or calculation

Goal description	Beneficiaries cumulative
 <p>7 AFFORDABLE AND CLEAN ENERGY</p> <p>Ensure access to affordable, reliable, sustainable and modern energy for all.</p>	24.250 people, from children to elderly, across various places in Malawi.
 <p>3 GOOD HEALTH AND WELL-BEING</p> <p>Ensure healthy lives and promote well-being for all at all ages.</p>	Approximately 16.800 people, all age, have now access to better basic healthcare services at Luntha Clinic and Mwanyama Clinic.
 <p>4 QUALITY EDUCATION</p> <p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p>	An estimated 5.700 children now have better opportunities for learning and studying.
 <p>6 CLEAN WATER AND SANITATION</p> <p>Ensure availability and sustainable management of water and sanitation for all.</p>	1.750 people now benefit from access to clean water, where this first was not possible.

About Sopowerful

Our organization in more detail

Sopowerful was founded with the desire to make a difference for the least privileged among us, through the application of solar power. Our team brings together a relevant mix of skills and experience and consists of young people who share the ambition to apply 'solar where it matters most'.

The board of Sopowerful consists of three members, who share the responsibility for the different roles together.

Our **board members** are:

- Mr. P.R.M. van der Linden
- Ms. L.R. van Os
- Mr. T.P. van Dorp

Our board operates on volunteering basis and does not receive any remuneration for their role and responsibilities.

Our **operational team** consists of two members:

- Mr. S. Cruccu, in the role of 'Director'
- Mr. M. Jambo, in the role of 'Project Manager'

The operational team is responsible for the daily activities of the foundation and does receive a remuneration for their role. Besides the above mentioned persons, we work with a number of volunteers.



Sopowerful is a Dutch foundation, active since 2019 and officially recognized as ANBI*. Our registered name is 'Stichting Sopowerful'.



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www.instagram.com/sopowerful.foundation



* ANBI stands for 'Algemeen Nut Beogende Instelling'. It is the official recognition of Public Benefit Organization, provided by the Dutch authorities. Read more about ANBI [here](#).



Sopowerful is member of Partin: a Dutch branch organization that promotes the interests of private initiatives involved in development work. Currently Partin has 360 members. Read more about Partin [here](#) (Dutch).

Our Partners

Who supports our mission

Besides the support of individuals, through crowdfunding, we are proud to have the commitment and support of a growing number of organizations: our Partners.

Our current Partners...

- are For Profit and Not for Profit organizations
- are based/headquartered in five different countries
- represent 'a handful' to thousands of employees
- all have the aim to enable 'solar where it matters most.

We are thankful to our Partners for having joined us on our journey and for making a tangible and lasting impact with and through us!

Please contact us if you are interested in exploring a Partnership.



ENCAVIS



Financial statement & Balance

Over 2021 (Explanatory notes on the next page)

Staat van baten en lasten over 2021

	2021		2020	
	€	€	€	€
Baten				
Partners		185.696		90.961
Crowdfunding		10.930		22.852
Overige baten		708		62
		<u>197.334</u>		<u>113.875</u>
Lasten				
Directe projectkosten	65.666		45.310	
Personeelskosten	36.241		6.500	
Terug te betalen kosten	8.800		3.902	
Reis- en verblijfkosten	5.549		2.074	
Tools	1.697		549	
Administratiekosten	1.520		655	
Opstartkosten	-		453	
		<u>119.473</u>		<u>59.443</u>
Som der bedrijfslasten				
		<u>119.473</u>		<u>59.443</u>
Nettoresultaat		<u>77.861</u>		<u>54.432</u>

Balans per 31 december 2021

	31 december 2021		31 december 2020	
	€	€	€	€
ACTIVA				
Viottende activa				
<i>Vorderingen</i>				
Handelsdebiteuren	16.500		-	
Overige vorderingen	10.297		-	
		<u>26.797</u>		<u>-</u>
<i>Liquide middelen</i>		111.847		61.432
		<u>138.644</u>		<u>61.432</u>
Totaal activazijde		<u>138.644</u>		<u>61.432</u>
PASSIVA				
Stichtingsvermogen		132.293		54.432
Kortlopende schulden				
Schulden aan leveranciers en handelskredieten	6.335		-	
Overige schulden	16		7.000	
		<u>6.351</u>		<u>7.000</u>
Totaal passivazijde		<u>138.644</u>		<u>61.432</u>

Financial statement & Balance

Explanatory notes

While we have completed three projects and carried the costs of these, significant time has been dedicated to projects that have not been completed before the end of the year. This translates into the relatively low number of projects completed (3) and the relatively low amount spend on direct project costs. The projects we have invested significant time in but were not completed this year, are expected to materialize in the first quarter of 2022. This fact has only partially been intentionally, while part of the delay has been due to heavy rains that have not allowed works on-site in November and December.

On the revenue side, we can see the very significant increase in funding income, as our Partnership revenues more than doubled compared to our first year. At the same time, income from Crowdfunding has roughly halved. An important explanation for this is that donation Crowdfunding is generally a powerful tool to 'start something up', while the urgency and interest seems to decrease for project-based crowdfunding after a while. Interestingly, a part of our crowdfunders has started to make their donation a monthly recurring donation.

This development provides us with food for thought and we are curious to see if this trend continues in the next year.

On the expenses side the increases are as expected: we have started to pay out a salary to our Director and as of June also hired our Project Manager.

The travel and accommodation costs have logically increased, as we have traveled more (inside Malawi) and a second person has been making these expenses.

The high capital figure (138k€) has everything to do with what is explained above and will be spent beginning of 2022 on the projects that have been prepared for.



Looking ahead

Our thoughts and expectations

Building onwards

2022 will start with the completion and commissioning of several projects that we have worked on this year. Our aim is to build further on our experience.

Our main objectives are:

- Proceed with a project-by-project, qualitative, 'Developer-approach'
- Learn in practice from our first solar-irrigation project that will be operational soon and implement additional projects of this kind
- Fully leverage our added capacity through our local Project Manager and be able to approach more/larger projects in parallel
- Implement our first project outside Malawi, most likely in Tanzania
- Standardize and professionalize our approach where possible, including documents and templates.
- Diversify if it comes to the local contractors we work with, to learn more and spread risks.
- Involve more Partners in our journey, to grow our funding base and be able to approach larger projects



