

10th Anniversary Edition



Annual Report 2020

Photo: Zahara Abdul



Tonight, as the sun sets, tens of thousands of maternal health workers will rely only on candles, kerosene lanterns, or cell phones for light as they tend to mothers and newborns during childbirth. They are afraid of the night ahead, knowing that they will likely struggle to provide life-saving care when pregnant women arrive in labor or have complications.

Our mission is to change that.

We make solar power simple, reliable, and accessible to ensure that mothers and newborns deliver safely in health facilities.



Photo: Zahara Abdul

At the start of 2020, we never could have predicted the extent of global disruption that would stem from a novel virus. It seems that every part of our lives has been impacted by COVID-19. One thing the pandemic has made abundantly clear: we all share this planet and what happens to one of us affects us all, albeit not equally.

Another thing made clear to us at We Care Solar is the importance of health facility electrification for addressing healthcare inequities. In the global south, the pandemic stressed already fragile health systems. Health workers in the communities we serve became the frontline battalion against the spread of COVID-19. Their work continues long after sunset. Along with training, medication and equipment, health workers need light and power to do their jobs.

The pandemic also made us acutely aware of the importance of electricity for education. As schools closed across the globe, students

needed to rely on computers, electronic curriculum and virtual classrooms. Electricity became as essential for home-based learning as it was for schools. Our We Share Solar education program was enriched with online curriculum and virtual offerings while we waited for schools to re-open.

We are pleased to be sharing this Annual Report, featuring the programs that reached off-grid communities during this challenging year. None of this would have been possible without your support. We are grateful to be able to continue to serve those in need of light and power for better health and education.

In addition to celebrating 10 years of impact, we look forward to expanding our renewable energy programs to new geographies in the years ahead, promoting cleaner, healthier, and more resilient communities.

Kaura Stachel

OUR FIRST DECADE: HIGHLIGHTS



- Liberia Pilot Program with WHO
- Nigeria Pilot Program
- Version 2.0 Solar Suitcase Launch
- MacArthur Foundation Grant

2010

- We Care Solar Founding
- Solar Suitcase Prototyping
- Blum Center for Developing Economies Grant
- Global Social Venture Competition Award
- Ashoka Award



2011



- Philippine Typhoon Haiyan Humanitarian Response
- We Share Solar Education Program Launch
- Nokia Tech Award
- C3E Award
- Katerva Gender Equity Award
- CNN Heroes

2012

- Uganda Pilot Program
- Women Solar Ambassador Launch
- Saving Lives at Birth Grand Challenge Grant with AMREF Uganda



2013

- Ethiopia Program with Hamlin College
- West Africa Ebola Response Program
- Malawi Pilot Program
- Sustainia Top 10 Award



2014



- Humanitarian Response for Nepal Earthquake
- Zimbabwe Pilot
- N. California School-based Programs
- UNDESA Power the Future We Want Grant
- UBS Optimus Prize

2015



- Light Every Birth (LEB) Liberia Launch
- UNFCC Momentum for Change Award
- Bloomberg New Energy Pioneer
- Drucker Innovation Award
- * Energy Globe Award Ethiopia

2016

- Tanzania Solar Suitcase Program
- Ethiopia Program
- Energy Globe Award Eritrea



2017



- LEB Uganda Program Launch
- Opened Regional Center in Kampala
- Randomized Control Trial Begins
- North Carolina Education Program
- Energy Globe Award Liberia

2018



- Version 3.0 Solar Suitcase Launch
- Light Every Birth Liberia Complete
- Edison Gold Innovation Award
- Zayed Sustainability Prize
- Time Magazine Best Invention

2019

2020 HIGHLIGHTS



Zimbabwe Launch

We launched Light Every Birth in Zimbabwe in February. The event was officiated by the First Lady of Zimbabwe, Her Excellency, Amai Auxillia Mnangagwa, who serves as the country's health ambassador, and attended by hundreds of community members, healthcare professionals, and representatives from UNICEF, UNFPA, and the World Health Organization.

Despite pandemic-related challenges, we met the following goals:

- 1,055 Solar Suitcases deployed
- 5,222 health workers trained
- 1.9 million deliveries in Solar Suitcase equipped facilities
- 9 million hours of light provided
- 15,000 tons of CO2 averted

Our Health Metrics



"Ten by Ten"

We celebrated a decade of impact with Ten by Ten, a 10-week online series highlighting the power of the people, programs, and ideas that shape our work. Topics included "The Power of Innovation," "The Power of Women," and "The Power of Education." These inspiring events can be found on our website.

The We Share Solar team worked with our partners to design and lead remote trainings for new solar installers in Kakuma Refugee Camp. We held virtual trainings that enabled our partners at WISEe to lead interactive STEM workshops and bring solar education to students.

Remote Learning



Solar Solutionaries

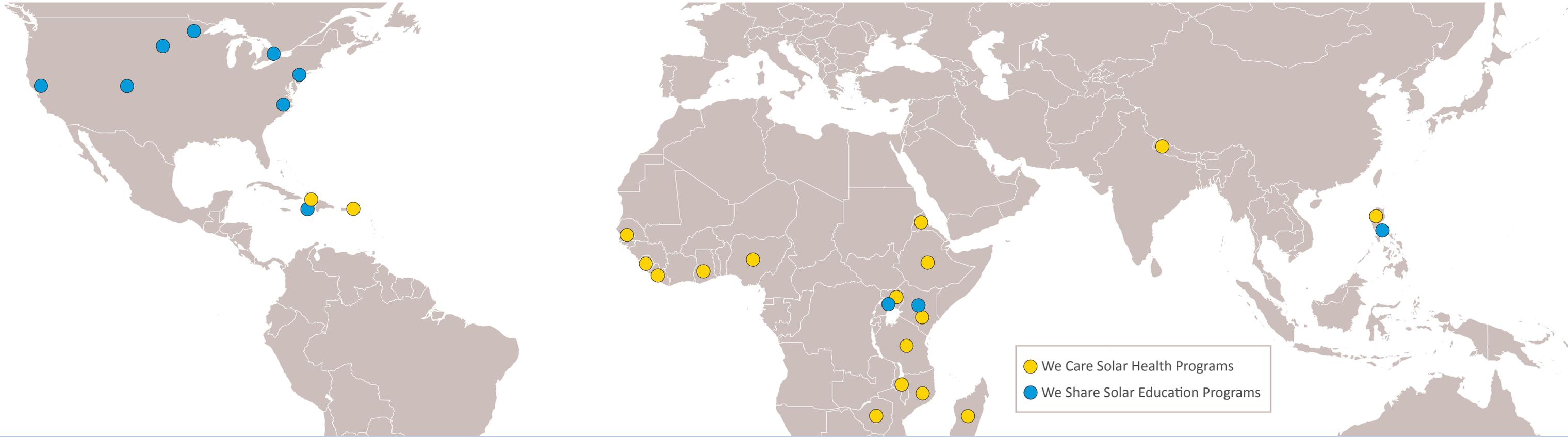
We Share Solar launched a new Solar Solutionary program inviting students to address essential questions related to global energy access and climate change using project-based learning methods. The program promotes independent, innovative, and entrepreneurial thinking.

We were thrilled to win the Alliance for Renewable Energy Award, a UN Science Technology and Innovation Award, and to be runner-up for the Roddenberry Prize. We also became Vanguard members of the Million Lives Club and were a winning innovation showcased at WISH, the World Innovation Summit for Health.

Recognition



OUR IMPACT TO DATE



7.5 million mothers and babies served



6,200 Solar Suitcases deployed to health facilities



49 countries received Solar Suitcases



77,243 tons of CO2 averted



26,000 health workers trained



716 solar installers trained



33,500 students engaged in solar STEM education



851 education Solar Suitcases deployed



395 teachers trained



314,330 international youth benefited



177 million hours of clean energy for health and education



36 international awards received

LIGHT EVERY BIRTH DURING A PANDEMIC

As COVID-19 swept across the planet, countries in which we worked were placed under lockdown and routine health services were threatened. The staff and systems we had in place in our Light Every Birth countries allowed us to respond rapidly. Our team ensured that essential light and electricity were available to health workers responding to the pandemic.

Our staff worked closely with government and other international partners to support the COVID-19 response. We added infrared thermometers and reusable masks to our solar kits. Thermometers allowed for no-touch temperature screening of all patients and masks were appreciated by health workers with limited supplies.

We adapted our installation protocols to comply with public health best practices. We provided guidance to our solar installers about the etiology and symptoms of

COVID-19 and how best to prevent transmission, equipping them with appropriate PPE and sanitation supplies.

Teams were given masks, gloves, soap, and even containers of clean water to enable frequent hand washing in any location. Health worker trainings were conducted outdoors and masks and physical distancing were encouraged. Health questionnaires were administered regularly to monitor the health of our installers. We developed virtual training programs to build the technical capacity of new solar installation partners. And thankfully, by adhering to all of these measures, our teams stayed safe while we provided light and better health care to more than 1,000 facilities.

Every mother has the right to a safe delivery in a health facility equipped with clean, reliable electricity.

The pandemic highlighted the need for stronger healthcare systems, especially for mothers and children, and we strengthened our commitment to Light Every Birth.





Photo (pre-pandemic): Laura Stachel

LIGHT EVERY BIRTH COUNTRY HIGHLIGHT

ZIMBABWE

Lighting up safe deliveries

Tendai Matimbe is a registered nurse - one of more than 3,000 health workers in Zimbabwe who received a Solar Suitcase as part of our Light Every Birth initiative. He spent years working by candlelight before receiving a Solar Suitcase. "It was so difficult. We could face many complications that needed a source of light so that you could see what you were doing." He recalled a time when a candle fell over during a delivery. "It was darkness all over. The baby was coming out, I didn't know where the equipment was. I needed to attend to the mother, I needed to attend to the baby, but it was total darkness. I was afraid I may lose the baby or the mother."

With the Solar Suitcase, Tendai reports that he and his staff are now confident. "We can now clearly see what we are doing. We can attend to anyone at night. We can easily suture, we can recognize fetal heart rate abnormalities. We can immunize patients and give medication to newborns to prevent HIV transmission. And we no longer force patients to pay for candles."

The Solar Suitcase has been particularly helpful during COVID-19, when the number of deliveries increased as families chose to deliver in rural clinics rather than the big city. "The number of deliveries doubled in early days of the pandemic. We relied on the lights at night. The Solar Suitcase is the best thing that happened to our clinic."

LIGHT EVERY BIRTH COUNTRY HIGHLIGHT

ZIMBABWE

When COVID-19 reached Zimbabwe, the government closed schools, businesses and public transportation in an effort to minimize viral spread. Health workers were in demand; they needed light and power to provide a range of essential services. Our solar installers also became “essential workers,” armed with COVID-19 safety protocols and PPE. Despite initial apprehensions, they expressed pride in being able to assist their country during this critical time.

ZimEnergy solar installer, Wadson Muchemwa, whose own wife is a public health nurse, was initially concerned. “The first two weeks, I was afraid. I didn’t know what to expect or how I would manage. Then I realized, everyone is afraid. We should be helping our fellow Zimbabweans. We can’t all run away.”

Traveling to health centers provided our solar installers with greater knowledge of what was happening throughout the country. “It helps me understand what is happening on the ground. What is the fatality rate? How are people reacting to

the pandemic?” explained Ernestine Tafumanai of Engineering World.

The importance of installing Solar Suitcases in health centers soon became clear to Wadson and others. “I feel very good about going into the rural areas during COVID. You are the frontline soldier. You are doing something important for your community.” He continued, “This is the right thing to be doing during COVID. There were instances where people needed to go to the clinics at night and were afraid. They might feel symptoms similar to the flu, but they don’t know if this could be COVID. With the lights on in the facility, people are able to go to the health center at night, and I know we are saving people.”

His pride was echoed by others, including Ernestine. “I feel very proud to be doing installations during the pandemic. I feel like someone should be helping the country and I should not be hiding, so I’m helping my country.”



Photo: Wadson Muchemwa



Photo (pre-pandemic): Laura Stachel

LIGHT EVERY BIRTH COUNTRY HIGHLIGHT

ZIMBABWE

“With light, there is no fear.”

Tsitsi Makunde has been a midwife in Zimbabwe for 30 years. Before the Solar Suitcase arrived at the Madamombe Clinic, her source of light at night was candles. “There’s fear of losing a patient, or pricking the vein and putting the IV in the tissues. The wax from the candle can go on the bed, the sheets, the floor. In the dark, I feel that anything can go wrong because you are not seeing well. You can make complications instead of helping the patient. But you have no choice – you have to serve people in the rural areas.”

Tsitsi was relieved when our Light Every Birth program reached her village. “Since the Solar Suitcase came, things are much easier for us. When you open the door, you make the light on. You are not fearing going into the room; you see where you are going. There is no fear because there is light. You are going to do your work freely. We can easily administer medications. We can easily suture. It’s easier to detect fetal abnormalities on the baby or on the mother, especially when there is birth asphyxia. And we can use the Ambu bag. It has helped the patients because we are no longer asking them to come with extra money for candles, and it’s easy to detect complications.” In response to the pandemic, Tsitsi taught the community about personal protective gear, hand washing and social spacing. She converted the Madamombe maternal waiting home into an isolation center for those at risk for COVID-19.

LIGHT EVERY BIRTH HIGHLIGHT

UGANDA

In Uganda, our solar installers overcame logistical challenges posed by the pandemic to install an impressive 626 Solar Suitcases in labor rooms and operating theaters. 563 public health centers received one or two Solar Suitcases in order to support safe childbirth, COVID-19 screening and surgical care. Together, these facilities conduct 263,464 deliveries annually, meaning more than half a million mothers and newborns are benefiting from our programs each year.

Dr. Lapat, a hospital physician in Gulu, told us that his hospital had previously suffered from frequent blackouts that contributed to maternal and perinatal losses. Doctors and midwives were demoralized—unable to assess post-partum bleeding, determine if newborns needed resuscitation, or conduct crucial cesarean sections at the hospital at night.

With the Solar Suitcase, Dr. Lapat reported, “100% of our deliveries are now conducted

in a well-lit labor suite” and “cesarean sections are now performed safely.” Monthly deliveries increased from 120 to 150 “because mothers perceive they are safer where there is light.” Complications are promptly identified, communications have improved now that phones can be charged. “The Solar Suitcase has been reliable every single day from when it was installed.”

During the COVID-19 pandemic, “the constant availability of light has made it possible for midwives to observe infection prevention and control protocols. They can conduct practices like proper waste segregation, cleaning and disinfection of surfaces, and hand washing, that cannot be performed in darkness. It is also possible for the midwives to monitor compliance to social distancing and the use of masks at all times.”



Photo: Zahara Abdul



Photo: Evelyn Fey

LIGHT EVERY BIRTH HIGHLIGHTS

SIERRA LEONE

Building a coalition

Sierra Leone has one of the highest rates of maternal mortality in the world. After successfully combating Ebola, COVID-19 again challenged the public health systems and amplified the need for frontline health workers to be well trained and well equipped. To avoid backsliding, it was essential that health workers continue to provide maternal and newborn care during the pandemic. In order to extend our Light Every Birth initiative to Sierra Leone, We Care Solar signed a tri-party memorandum of understanding with the Ministry of Health and Sanitation as well as the Ministry of

Energy. We also signed on five additional health agency partners: UNFPA, CARE, Save the Children, GOAL, and International Rescue Committee. Although we were eager to scale our programs, the pandemic resulted in transportation delays and cancellations. It took months to ship 375 Solar Suitcases to Sierra Leone by the end of the year. COVID-19 prohibited in-person solar installer trainings, and remote training materials were developed and executed in partnership with Remote Energy so that health facility installations could move forward.

Keeping the Lights on

After reaching every qualified public health facility in Liberia in 2019 with our Light Every Birth initiative, we turned our attention towards sustainability. We are working closely with the Family Health Division and local partners to finalize a phased handover plan with the Liberian Ministry of Health and Social Welfare. The plan includes a public-private partnership with Smart

Energy, a local solar company. Smart Energy is conducting service visits at health facilities throughout the country and training government technicians on standard maintenance protocols, using our supply chain of spare parts. We are testing a digital incident report system in an effort to improve the sustainability of our programs.

LIBERIA



Photo: Brian Inganga

LEARN, BUILD AND SHARE

GLOBAL

We Share Solar

Around the world, 860 million people live without access to modern electricity—600 million in sub-Saharan Africa alone.

We Share Solar is the education program of We Care Solar that gives students the opportunity to “Learn, Build, and Share.” We offer students and educators a STEM* learning experience that links practical solar power engineering knowledge with inspiring humanitarian and community service. Students learn about energy poverty, climate change, innovation, career opportunities, and the role of renewable energy in addressing global challenges. Our hands-on curriculum introduces students to engineering skills with real-world application through the assembly and donation of our 12-volt DC stand-alone solar electric system, the We Share Solar® Suitcase.

*STEM = Science, Technology, Engineering, and Math

In 2020, despite the challenges of COVID-19, we trained teachers across 97 schools in the United States, enabling 6,300 students to engage with our hands-on curriculum. We held four solar education workshops for youth and teachers in underserved communities in East Africa.

Solar Suitcases were delivered to Native American reservations and supported emergency preparedness in U.S. schools. Internationally, Solar Suitcases were deployed to schools and refugee settlements in Kenya and Uganda. 117 Solar Suitcases were installed in Kenya, providing 1.3 million hours of light and charging capacity for 50,000 people.

UNITED STATES

FOSTERING SOLAR SOLUTIONARIES

Our Solar Solutionary Program was launched in Minnesota with teachers from ten participating schools. This interdisciplinary program empowers young people to be agents for positive change and highlights renewable energy as a solution to some of the world's most pressing challenges. Our comprehensive program invites students to address essential questions using project-based learning methods, and promotes independent, innovative, and entrepreneurial thinking.

Built around the "5E model"—engage, explore, explain, elaborate, evaluate—our curriculum inspires students through projects and interactive materials. In addition to introducing principles of solar electricity and providing the opportunity to build Solar Suitcases, the Solutionary Program offers lessons on climate change, refugees, innovation, social entrepreneurship, and global energy access. Students are encouraged to identify an energy-related problem and come up with their own innovative solution. The Solar Solutionary digital curriculum includes a series of ten short "VOICES" videos, produced by We Share Solar, featuring experts in solar, entrepreneurship, and international development sharing their experience directly with students.



STEM WORKSHOPS FOR AFRICAN YOUTH

KENYA



Photo: WISEe

To reach Kenyan youth with our STEM education curriculum, we conducted a Train the Trainer program with our partners at Women in Solar Energy and Entrepreneurship (WISEe). WISEe participants enjoyed the teaching modules and were eager to share their new knowledge as solar instructors.

"...the modules were easy to follow yet quite engaging; the hands-on approach and the exercises at the end of the training modules made all the difference. I look forward to sharing this knowledge with curious, young, eager minds and in some way, add lasting value to the world around me."--Helen Mburu, WISEe

WISEe instructors led four interactive STEM training workshops, reaching a total of 66 students (41 female and 25 male) between the ages of 11 and 20 years. The new instructors reported that the program impacted them professionally as trainers and personally as mentors and they were pleased to see many students develop an interest in pursuing STEM careers.

REMOTE TRAINING FOR RENEWABLE ENERGY

KENYA

When the pandemic put international travel on hold, we needed to revise our plans to lead a solar installation training at Kakuma Refugee Camp. Working with four partner organizations, we found new ways to empower refugees with knowledge and skills while following public health safety guidelines.

Resilience Action International (RAI), a refugee-led organization, hosted the training, identified students for the program, and conducted community outreach.

Our partners at Remote Energy worked with us to create a distance learning program. Computer-based curriculum enabled motivated students to engage in learning modules, self-assessments, and personalized Zoom meetings with Master PV trainers.

Next, two teams of Nairobi-based partners, WISEe and +254 Solar Energy CBO Kenya, traveled to Kakuma to conduct hands-on field trainings with program participants. Together, the trainees installed 30 Solar Suitcases in sites selected by RAI.



Photo: Brian Inganga

DISASTER RESILIENCE IN SCHOOLS

UNITED STATES

Forest fires, weather disruptions, and power outages are becoming more common. We Share Solar is responding by empowering youth with a new curriculum focused on emergency preparedness, energy access, and disaster resilience.

Student-built Solar Suitcases are utilized during local power outages by providing security lighting and back-up electricity in

schools and surrounding neighborhoods. The portable power packs assembled by students include LED lights, headlamps, and charging capacity for cell phones and tablets. The program gives students experience in planning, practicing and preparing for disasters, and by helping others in their own communities, students gain a sense of personal agency.



Photo (pre-pandemic): Media Arts Collective

ENERGY INDEPENDENCE ON TRIBAL LANDS

UNITED STATES



Photo (pre-pandemic): The Bokeh Effect

In many communities, including those on Tribal lands, around-the-clock power is not assured. In some cases, students live in homes lacking reliable electricity.

We Share Solar has partnered with Native-serving organizations to share our STEM curriculum and Solar Suitcase equipment with communities such as the Pine Ridge Reservation, Hoopa Valley Tribe, Rosebud Reservation, the Hopland Band of Pomo Indians, and the Navajo Nation.

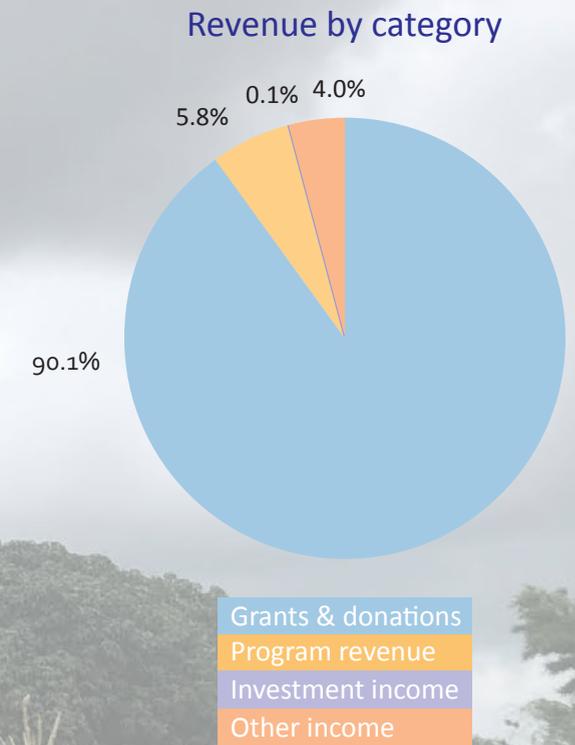
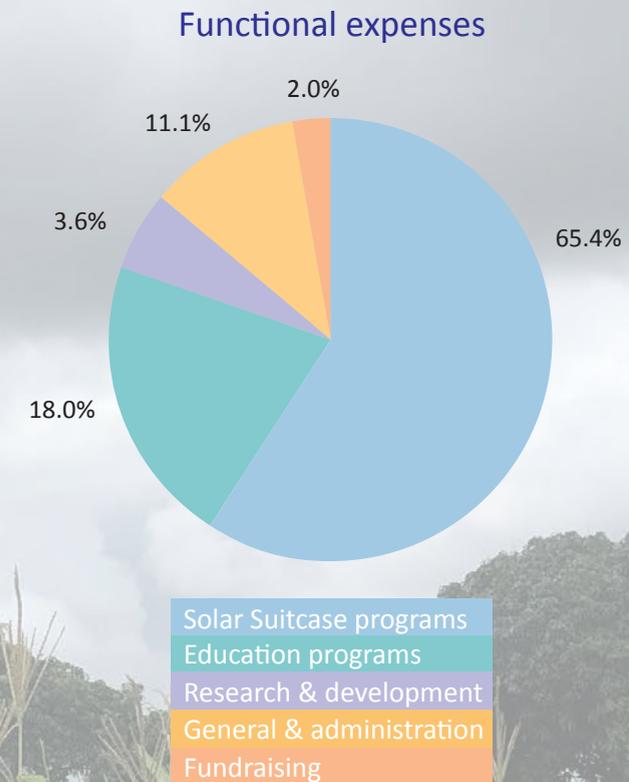
Solar Suitcases provide power in the event of emergency outages and enhance local resilience. Our STEM education program introduces the basics of solar electricity to Native students. By building Solar Suitcases to benefit their own communities, we show students the elegance of renewable power and introduce them to potential new career pathways.

FINANCIALS

Statement of Activities for the Year Ended December 31, 2020*

	Without Donor Restrictions	With Donor Restrictions	2020 Total	2019 Total
REVENUE				
Grants and donations	\$1,536,533	\$4,213,265	\$5,749,798	\$6,994,772
Program revenue	369,079	—	369,079	223,871
In-kind support	—	—	—	74,600
Investment return	4,178	—	4,178	12,104
Other income	255,281	—	255,281	67,706
Net assets released from restrictions:				
Satisfaction of program restrictions	3,237,649	(3,237,649)		
TOTAL REVENUE	\$5,402,720	\$975,616	\$6,378,336	\$7,373,053
EXPENSES				
Program services	4,321,797	—	4,321,797	4,193,827
Management and general	550,467	—	550,467	538,204
Fundraising	100,960	—	100,960	129,700
TOTAL EXPENSES	\$4,973,224	—	\$4,973,224	\$4,861,731
CHANGE IN NET ASSETS	429,496	975,616	1,405,112	2,511,322
NET ASSETS, BEGINNING OF YEAR	1,677,055	6,112,027	7,789,082	5,277,760
NET ASSETS, END OF YEAR	\$2,106,551	\$7,087,643	\$9,194,194	\$7,789,082

*Revenue includes multi-year grants



PARTNERSHIPS



Photo (pre-pandemic): Laura Stachel

We Care Solar Partners

AEL General Trading (Eritrea)
All in Trade Ltd. (Uganda)
AVSI Foundation (Uganda)
Brick by Brick (Uganda)
CARE (Sierra Leone)
Clinton Health Access Initiative (Uganda)
Doctors with Africa CUAMM (Sierra Leone, Uganda)
Ekide Investments Ltd. (Uganda)
Eletech Investments (Zimbabwe)
Engineering World (Zimbabwe)
Feni Certified Installation Team (Uganda)
GOAL (Sierra Leone)
Hamlin College of Midwives (Ethiopia)
Healthy Child Uganda (Uganda)
Horizon Energy (Sierra Leone)
International Rescue Committee (Sierra Leone)
IntraHealth International (Uganda)
Midwives for Haiti (Haiti)
Pathfinder International (Ethiopia)
PIVOT (Madagascar)
Save the Children (Sierra Leone)
Smart Energy (Liberia)
UNFPA (Sierra Leone)
World Health Organization (Eritrea)
ZimEnergy Eco Foundation (Zimbabwe)

Government Partners

Ministry of Energy, Sierra Leone
Ministry of Health and Child Care, Republic of Zimbabwe
Ministry of Health and Sanitation, Sierra Leone
Ministry of Health and Social Welfare, Republic of Liberia
Ministry of Health, Republic of Uganda

We Share Solar Partners

United States

American Indian Chamber of Commerce
of California
California State University
Charlotte-Mecklenburg Schools
Creation Technologies
Minnesota Independent Schools Forum
Remote Energy
Trees, Water & People

Global

+254 Solar Energy CBO (Kenya)
Brick by Brick (Uganda)
Kabale University (Uganda)
Kakenya School for Excellence (Kenya)
Resilience Action International (Kenya)
WISEe - Women in Sustainable Energy
and Entrepreneurship (Kenya)
WISER International (Kenya)



FUNDERS AND SUPPORTERS

THANK YOU

We are grateful for the generous support of all our donors, including the following institutions and individuals who have contributed \$5,000 or more:

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- Frank McHugh-O'Donovan Foundation
- Gilead Foundation
- Marks Family Foundation
- Meadow Fund
- Pacific Gas and Electric Company
- Pathfinder International
- Starr International Foundation
- UBS Optimus Foundation
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- WEM Foundation
- Zayed Future Energy Prize

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- Edwardsville Rotary Club, District 6460
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- Global Health Foundation
- James and Sharon Maida Foundation
- Dhilan Parikh Shah Fund
- Montei Foundation
- Osprey Foundation
- Sonnedit
- Edgewater Foundation

Champions

- AEL General Trading
- Anonymous Foundation
- Ascienzo Family Foundation
- Asiff Hirji and Sarah Wigglesworth
- Dekko Family Fund
- Rotary Club of Kiwatule, District 9211
- Roth Family Foundation
- Tom and Liz Murley



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