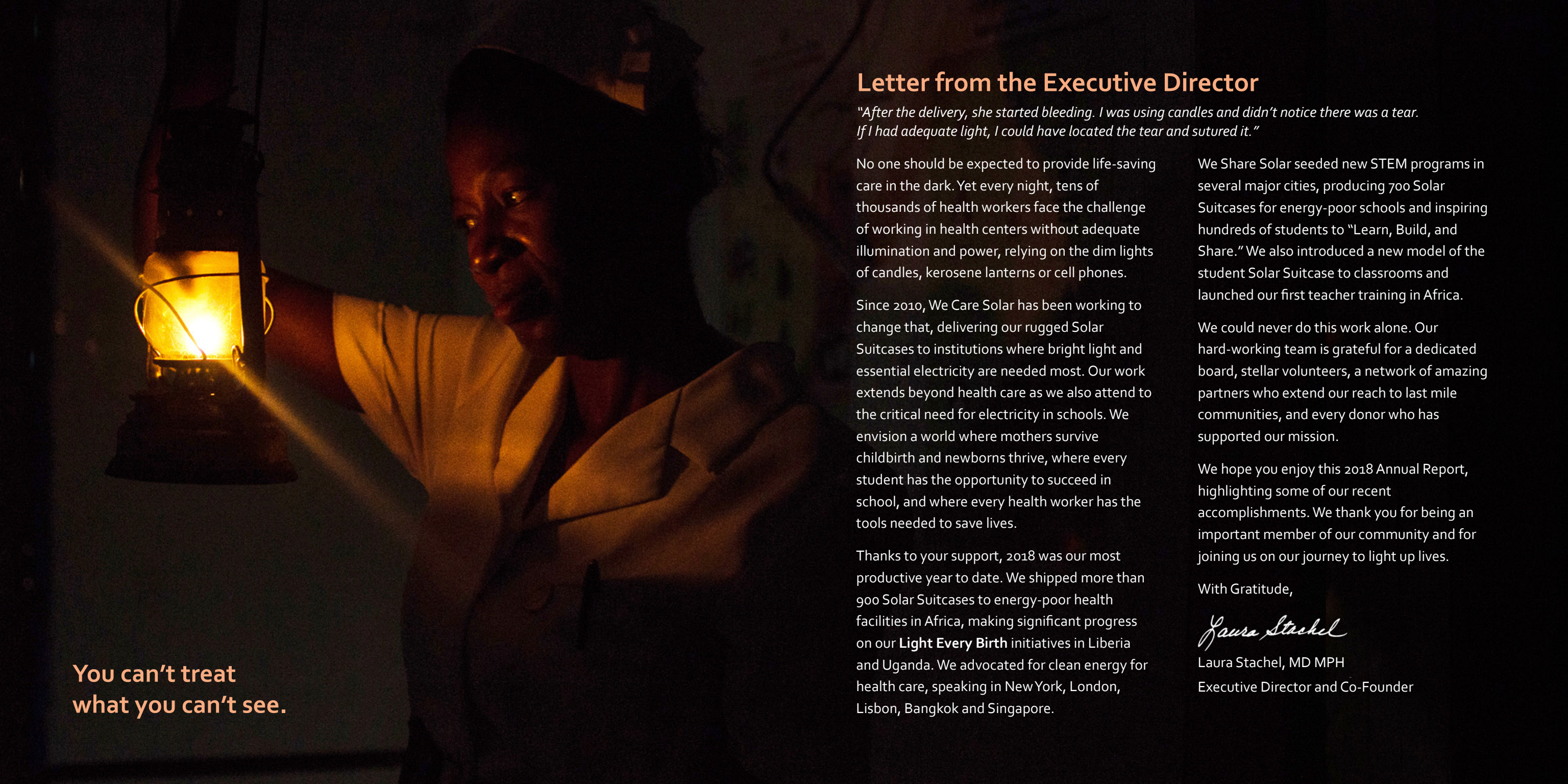




**WE CARE SOLAR**

Annual Report 2018



A woman in a white lab coat is holding a glowing solar lantern in a dark room. The lantern is a rugged, black, boxy design with a bright yellow light emanating from it. The woman is looking down at the lantern with a focused expression. The background is dark and indistinct.

**You can't treat  
what you can't see.**

## Letter from the Executive Director

*"After the delivery, she started bleeding. I was using candles and didn't notice there was a tear. If I had adequate light, I could have located the tear and sutured it."*

No one should be expected to provide life-saving care in the dark. Yet every night, tens of thousands of health workers face the challenge of working in health centers without adequate illumination and power, relying on the dim lights of candles, kerosene lanterns or cell phones.

Since 2010, We Care Solar has been working to change that, delivering our rugged Solar Suitcases to institutions where bright light and essential electricity are needed most. Our work extends beyond health care as we also attend to the critical need for electricity in schools. We envision a world where mothers survive childbirth and newborns thrive, where every student has the opportunity to succeed in school, and where every health worker has the tools needed to save lives.

Thanks to your support, 2018 was our most productive year to date. We shipped more than 900 Solar Suitcases to energy-poor health facilities in Africa, making significant progress on our **Light Every Birth** initiatives in Liberia and Uganda. We advocated for clean energy for health care, speaking in New York, London, Lisbon, Bangkok and Singapore.

We Share Solar seeded new STEM programs in several major cities, producing 700 Solar Suitcases for energy-poor schools and inspiring hundreds of students to "Learn, Build, and Share." We also introduced a new model of the student Solar Suitcase to classrooms and launched our first teacher training in Africa.

We could never do this work alone. Our hard-working team is grateful for a dedicated board, stellar volunteers, a network of amazing partners who extend our reach to last mile communities, and every donor who has supported our mission.

We hope you enjoy this 2018 Annual Report, highlighting some of our recent accomplishments. We thank you for being an important member of our community and for joining us on our journey to light up lives.

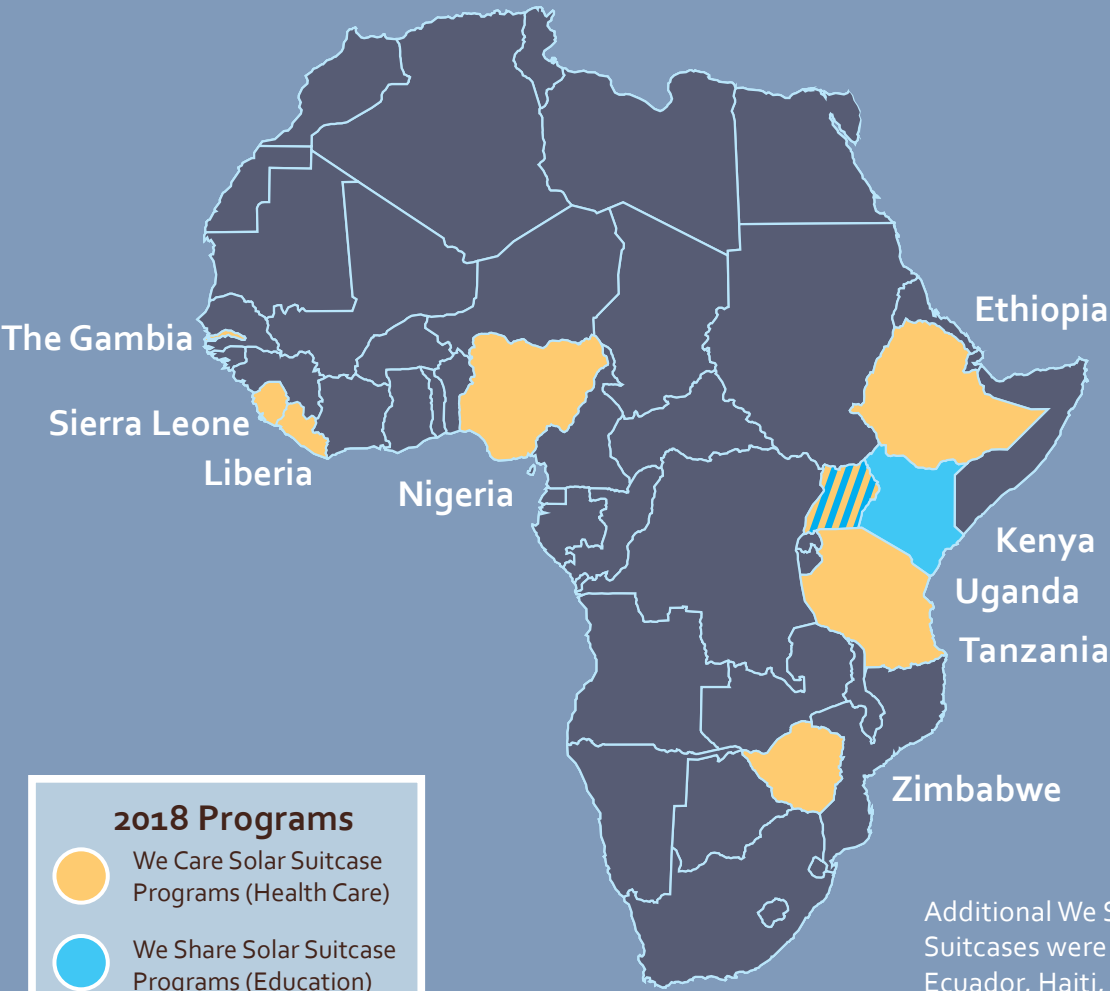
With Gratitude,

A handwritten signature in black ink that reads "Laura Stachel". The script is fluid and cursive.

Laura Stachel, MD MPH  
Executive Director and Co-Founder



# Where we worked in 2018



**2018 Programs**

- We Care Solar Suitcase Programs (Health Care)
- We Share Solar Suitcase Programs (Education)
- Health and Education Programs

Additional We Share Solar Suitcases were deployed in Ecuador, Haiti, India, Niger, Peru, the Philippines, Puerto Rico (USA), Tanzania and Vietnam.

# Our impact to date

9 years since our founding

3,987 Solar Suitcases deployed to health centers

40,000 tons of CO2 averted

15,948 health workers trained in use and maintenance

1,967,266 deliveries in Solar Suitcase-powered facilities

53 NGO, government and UN partners

157,072 international youth served

14,566 STEM students trained

1,833 student-assembled suitcases



*Effective quality of care for mothers and newborns depends upon light and electricity. Even the best trained practitioners are handicapped in darkness. The **Light Every Birth** initiative builds upon our efforts to achieve universal health care and improve maternal and newborn survival.*

— Dr Jane Aceng, Minister of Health, Uganda

# Light Every Birth

5 countries • 5 years • 17 million lives

**Light Every Birth** addresses the need for clean energy for safe childbirth. This initiative calls upon governments, UN agencies and international NGOs to uplift maternal-newborn care by ensuring that every public health center has medical lighting and continuous power for safe deliveries.

We are demonstrating that it is feasible to reach national scale by equipping every maternal health center in need of reliable electricity with clean solar power. We are also strengthening local infrastructure by training district technicians and building local supply chains for long-term sustainability.

We are targeting five countries in the next five years; the first country commitments were made by Liberia and Uganda. Now Liberia is on track to successfully equip every health center in need with Solar Suitcases by 2019. Next, we plan to include Sierra Leone, Zimbabwe and Tanzania in this initiative. Our aim is to reach more than 8,000 health centers in five years, impacting an estimated 17 million mothers and newborns.

Photo: Brian Inganga





*When you install the Solar Suitcase and you switch on the light, you can see the beam of joy on the health worker's face.*

— Solar Suitcase installer

*I could stay here for a week giving deliveries! I wouldn't get tired because I would have enough light.*

— Midwife

# Liberia

This was the second year of our **Light Every Birth** initiative in Liberia. We are working to improve the quality of health care in a country suffering from high maternal mortality rates and limited grid power. Working in collaboration with the Liberian Ministry of Health and our installation partners at Energising Development, we are well on the way to lighting every birth. To date, 385 health facilities have been equipped with our technology and more than 1,950 health workers have been trained to operate the Solar Suitcase. Equipped with reliable lighting, phone charging and fetal monitors, these health workers have served 200,000 mothers and newborns. Research being conducted by Innovations for Poverty Action is assessing the performance and impact of Solar Suitcases in more than 200 health facilities.

**Partners:**

Gilead Foundation  
The Meadow Fund  
Music for Relief  
Wells Fargo Foundation  
UBS Optimus Foundation  
Starr International Foundation  
Energising Development (EnDev)  
Innovations for Poverty Action  
Liberia Ministry of Health and Social Welfare







Photo: Zahara Abdul

*It is so much easier to do my job throughout the night.  
I am very, very glad for what you have done for our  
unit. We are able to do the blood pressure, write  
notes, and clearly fill in the partographs.*

— Midwife

## Uganda

Uganda became our second **Light Every Birth** country with a formal launch conducted in Kampala in partnership with the Ministry of Health. The event was attended by hundreds of people, including health officials from every district of the country. A record 350 Solar Suitcases were shipped to Uganda in 2018; 143 Solar Suitcases were installed by the end of year in partnership with Ekide, Healthy Child Uganda, Brick by Brick, and Intrahealth.

Uganda is also the site of a randomized control trial of the Solar Suitcase. Researchers at Innovations in Poverty Action spent the year conducting observations in dozens of health centers to document the impact of the Solar Suitcase on quality of care. This research is due to be completed in 2019.

### Partners:

Ministry of Health Uganda  
The Meadow Fund  
Music for Relief  
UBS Optimus Foundation  
Wells Fargo Foundation

Brick by Brick  
Ekide Investments LTD  
Intrahealth  
Innovations for Poverty Action  
Healthy Child Uganda



*I was in much pain but I felt so happy that my baby will be born in a clean room and under bright light.*

— New mother

*I am no longer scared of blood contamination for me and my staff because we can see clearly at night.*

— Midwife

## Sierra Leone

Sierra Leone has one of the highest maternal mortality rates in the world. Our partners at Doctors with Africa CUAMM have been determined to improve midwifery training and emergency transport. Solar Suitcase programs with CUAMM have reached 141 health centers and complement CUAMM's initiative to train midwives to identify major direct obstetric complications (MDOC) and to call for help in those cases. The provision of light from the Solar Suitcases and the phone charging capabilities, combined with the skills training provided by CUAMM, improved early detection of obstetric and fetal emergencies and has resulted in more appropriate and timely referrals. CUAMM has been an enthusiastic partner. "This project has been my favorite," commented one staff member. "It's great to see the relief on fellow healthcare workers' faces when they know that the next delivery will be without holding a phone in their mouth."

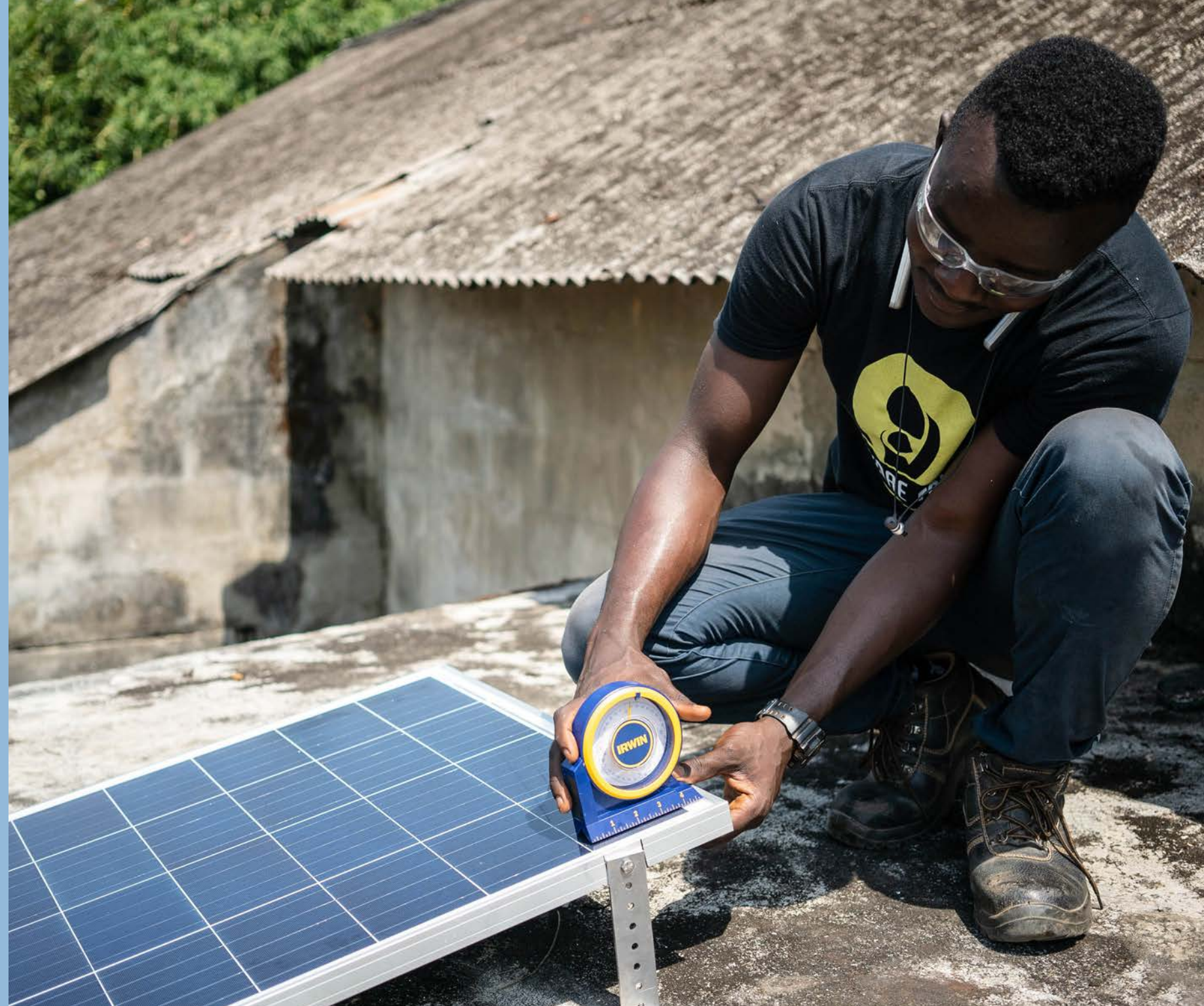
The Solar Suitcase has also helped to improve mothers' attitudes towards delivering at the facility and has resulted in increased utilization of health facility services. Compared to baseline rates, the program increased facility-based deliveries by 8% and first prenatal care visits by 22%.

**Partners:**

Gilead Foundation  
Music for Relief  
Project Bo

Ocorian Trust  
Wells Fargo Foundation  
Doctors with Africa CUAMM

Photo: Evelyn Fey





*The hardest part of my job is working alone at night with no light. With no light in the facility, patients don't even want to come here. They would rather visit other providers that may not even be health workers. Now that we have this solar source of light, the women in our community want to come here.*

— Community Health Extension Worker

# Nigeria

We Care Solar Suitcases were installed in 100 health facilities in the Northern Nigerian states of Gombe, Niger and Kaduna in partnership with Pathfinder and the State Primary Health Care Development Agency (PHCDA). Four government staff from each state were trained on installation and maintenance and 362 health workers learned to operate the Solar Suitcase. In every state, the PHCDA pledged its ongoing support of the program.

Health workers were grateful for the improved working conditions that have boosted the quality of maternity care.

**Partners:**

UNDESA  
Pathfinder International  
Primary Health Care Development Agency



*With the Solar Suitcase, we can deliver even four women at night without any problems. The Doppler helps us to measure the fetal heart rate easily compared to traditional methods. The special headlamps help us to offer family planning services, including intrauterine devices.*

— Midwife



Photo: Amy Livingston

# Tanzania

In partnership with Jhpiego, Solar Suitcases were provided to 100 health facilities serving an aggregate catchment population of 1 million people in Mara, Kagera and Geita regions. This program complemented Jhpiego's Comprehensive Health Service Delivery Project. We Care Solar trainings prepared 17 technicians to conduct solar installations and teach health workers how to use the Solar Suitcase and its components. Once the health centers were equipped with lighting and power, more women elected to use the health centers, and facility-based deliveries increased by 31%. 28,000 safer deliveries occurred in the first year alone.

**Partners:**

Artemis Foundation  
Every Mother Counts  
Global Health Foundation  
Good Gifts  
MPH Fund of the Hawai'i  
Community Foundation  
Music for Relief  
Wells Fargo Foundation  
Jhpiego



*Our lives are now easier. Our phones are always full now, thus ensuring we have full time communication. Deliveries at night have become so normal and there's nothing to complain about.*

— Health Worker

*The solar lights in the labor ward are very bright. It helps us to conduct deliveries, check for tears, suture, and to insert an IV cannula at night.*

— Health Worker

# Zimbabwe

Zimbabwe has an estimated maternal mortality ratio of 614 maternal deaths per 100,000 live births, far from the Sustainable Development Goal target of 70 per 100,000 by 2030. The country has made great strides in improving medical equipment, supplies and emergency care protocols. However, a high percentage of health facilities lack reliable power. Mothers are expected to pack candles as part of their birthing kits. Midwives describe their frustration trying to provide life-saving care in unelectrified health facilities and the safety concerns of working in near darkness.

In 2018, ZimEnergy Eco-Foundation continued to partner with We Care Solar to light up health centers; this year the focus was on the southwest part of the country. Our partners battled difficult road conditions and fuel shortages resulting in long delays and driving late into the night. Despite these obstacles, the team successfully reached 50 remote health centers throughout Matebeleland South, boosting obstetric services for hundreds of thousands of families.

**Partners:**

Montei Foundation  
MPH Fund of the Hawai'i Community Fund  
UNDESA  
ZimEnergy Eco-Foundation

Photo: Wadson Muchemwa







Photo: Samson Tsegaye

*The step-down training program gave me the opportunity to teach others in my country about the Solar Suitcase. This is essential for the sustainability of our program in Ethiopia.*

—Samson Tsegaye, Director, Stiftung Solarenergie Ethiopia

## Ethiopia

Pathfinder International enhanced their maternal-newborn health programs in Ethiopia by delivering 100 Solar Suitcases to medical facilities in Amhara, Oromia, SNNPR, and Tigray. To support the scale-up of the Pathfinder program, We Care Solar conducted a Training of Trainers course designed to enable a cadre of skilled Solar Suitcase installers to independently lead training programs in three additional regions. Our comprehensive training program was conducted by two We Care Solar female trainers and our Ethiopian partner, Samson Tsegaye. The training included classroom presentations and role-playing on topics such as communication skills, solar electricity, tool use and safety. It was followed by practical exercises and supervised Solar Suitcase installations. Graduates of this program successfully conducted step-down trainings so that local technicians in three more regions of Ethiopia could equip health centers with solar lighting and power.

**Partner:**  
Pathfinder Ethiopia



*It was inspirational and gratifying to use the human centered design approach on a project with such significant impact.*

— Tom Dair, Institute for Creative Integration (ICI)

# Innovation and Design

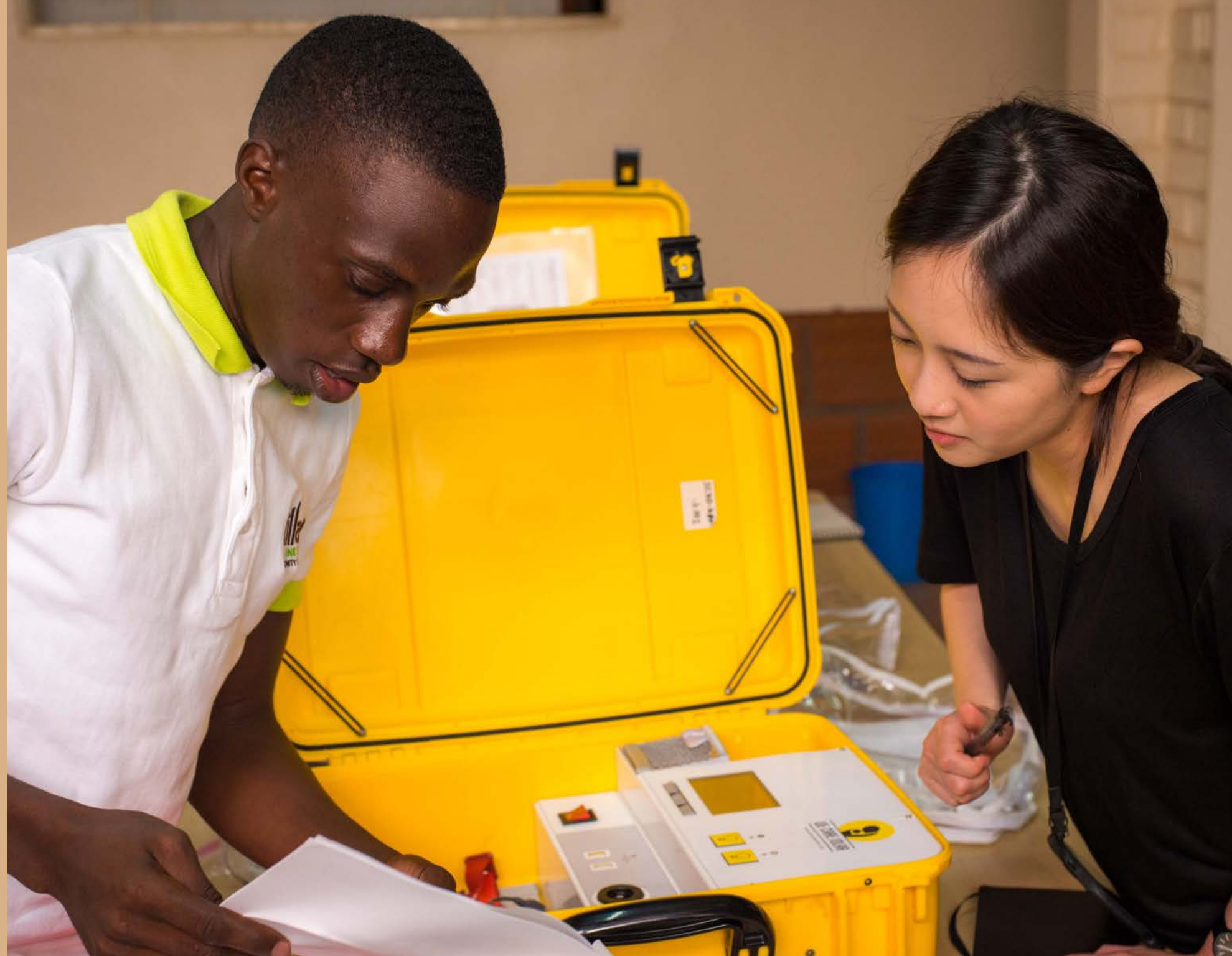
After three years of research and development, we are ready to launch Version 3.0, a We Care Solar Suitcase with more power and greater functionality than its predecessor. Our team worked with two Bay Area design firms, an engineering design firm, and a global electronics company to improve the Solar Suitcase user experience, streamline installation protocols, redesign the lights, and create new packaging, storage and educational materials.

In 2018, our team went to Uganda with designers from ICI (Institute for Creative Integration) to field-test our newest prototype and evaluate training materials with health workers and solar installers. We incorporated this research into our final design, then updated our user manuals and videos to make it easier for the Solar Suitcase to be installed and used around the world.

**Partners:**

MacFarlane Family Foundation  
UBS Optimus Foundation  
Arrow Electronics  
Institute for Creative Integration (ICI)  
Small Axe  
Zebulon Solutions

Photo: Rex Lu





# We Share Solar

The We Share Solar STEM education program creates opportunities to “Learn, Build and Share.”

Our professional development program introduces teachers to our innovative Solar Suitcase curriculum and prepares them to teach students about energy poverty, solar electricity, and Solar Suitcase assembly. In 2018, we responded to teacher feedback and designed a new compact Solar Suitcase optimized for student learning and affordability. We also conducted a number of corporate engagement events to allow industry professionals to give back to underserved communities by building Solar Suitcases and light switch boxes.

It was a busy year for our We Share Solar team. The 85 teachers trained by our

workshops engaged more than 7,200 students at 115 program sites across North America. Educators from Chicago, Illinois; Flagstaff, Arizona; Rosebud, South Dakota; Denver, Colorado; Charlotte, North Carolina; Toronto, Canada; Newark and Princeton, New Jersey; and multiple cities in Northern and Central California participated in our unique service-learning program. More than 160 student-assembled Solar Suitcases provided critical support for schools and community centers in Uganda, Kenya, and Ecuador, benefitting 68,000 people. Hundreds of additional units were used by American schools for emergency preparedness, homeless shelters, and for distribution to Indian reservations in need of supplemental power.

## Partners:

Wells Fargo Foundation  
Pacific Gas and Electric Company  
Jim and M.A. Rogers  
Creation Technologies  
ComEd  
Remote Energy  
Trees, Water & People  
The Ascienzo Family Foundation

California State University  
State University of New York  
Northern Arizona University  
Rutgers University  
Charlotte Mecklenburg Schools  
Rising Sun Energy Center  
City of Oakland







# East Africa Teacher Training

One of the highlights of 2018 was conducting our first teacher training program in Uganda. With the support of Music for Relief and our partners at Brick by Brick and Kabale University, our team traveled to Rakai, Uganda to donate student-built Solar Suitcases to more than a dozen classrooms and to introduce our interactive curriculum to science teachers. The Ugandan teachers have limited opportunities to bring hands-on STEM education into their classrooms. They were thrilled to have in-depth training on solar electricity and actual Solar Suitcase components to work with.

The teachers returned to their own schools, where bright blue Solar Suitcases provided classroom lighting and power. They were armed with a teaching curriculum and a kit of materials to help their students become the next generation of solar innovators.

**Partners:**

Music for Relief  
Brick by Brick  
Kabale University  
The Kabale We Share Solar team

Photo: Brian Inganga





Photo: Brian Inganga

# Lighting up lives

We Share Solar Suitcases provide a clean energy source to students and teachers working in off-grid and energy-poor schools. Bright LED lights replace flashlights, kerosene lanterns and candles; reliable solar electricity powers tablets and other educational devices.

In 2018, our partners in Kenya installed 15 Solar Suitcases in the community of Muhuru Bay on the banks of Lake Victoria. The installation and mentorship program was led by an all-female team of technicians from WISEe (Women in Sustainable Energy and Entrepreneurship), a cooperative that increases the participation of women in the renewable energy sector. WISEe technicians were also able to serve as mentors for girls at the community host school, WISER Girls Secondary School.

We also worked in the community of Kakuma, a refugee camp located in the northwestern region of Kenya in Turkana County. Kakuma Refugee

Camp has a population of over 186,000 registered refugees from South Sudan, Ethiopia, Somalia, and the DR Congo. There is no grid power within the camp, and the 5% of facilities that do have electricity rely on diesel fuel generators. We Share Solar partnered with Resilience Action, a refugee-led community organization that identified energy-poor schools and youth-serving organizations and coordinated the installation of Solar Suitcases. Some of the schools in Kakuma where Solar Suitcases were placed have over 2,000 students and an average class size of 200. As a result of the We Share Solar Suitcase program, the school day has been extended to increase learning opportunities and reduce classroom overcrowding. Students are able to study in school at night in a secure, well-lit environment, prompting the camp police to extend the curfew for students. The Solar Suitcases in Kakuma have served over 57,000 refugees to-date!

## Partners:

Wells Fargo Foundation  
Jim and M.A. Rogers  
Pacific Gas and Electric Company  
ComEd  
The Segal Family Foundation  
Music for Relief  
SunPower

Women in Sustainable Energy and  
Entrepreneurship (WISEe)  
Change Mtaani  
Resilience Action  
WISER International  
Kakuma Centre for Excellence



# In Memoriam

We are heartbroken by the untimely passing of Jim Rogers, a We Care Solar board member who was an important leader in the energy industry. After retiring as the CEO of Duke Energy, Jim became an advocate of renewable energy, turning his focus towards eradicating energy poverty in the developing world, and authoring *Lighting the World: Transforming our Energy Future by Bringing Electricity to Everyone*. He was a champion of our mission, and was delighted to see a Solar Suitcase illuminating a Tanzanian clinic on one of his trips to Africa. In 2018, Jim and his wife, M.A., along with Wells Fargo, supported the We Share Solar education program in twenty Charlotte, North Carolina public schools. He spoke fondly of the National STEM Day event that he spent with middle school students building Solar Suitcases destined for Kenya. Jim was a beloved member of our We Care Solar family and is deeply missed by all of us.



*Electricity is the foundation for economic development, education, health, and efficient farming. It is also a key driver in helping women gain equality....It is our obligation to assist people who lack power in their quest to get ahead and take better care of their families. It is a human imperative.*

— Jim Rogers, from *Lighting the World*





# Outreach and Advocacy

We Care Solar has been a champion of sustainable electricity for health care since our inception. Our programs have been showcased as a shining example of the interlinkages of Sustainable Development Goals on Clean Energy, Health Care, Gender Equity, Economic Empowerment, and Climate Action.

2018 brought more opportunities to engage diverse stakeholders from the technology, global health, education, and sustainability sectors. We were especially proud to see our yellow box of power on display at the London Science Museum as part of their unique exhibit on the sun.



*The Solar Suitcase on display at The Science Museum, London*



*World Health Organization , Geneva*

Here are some of the places we were in 2018:

Abu Dhabi Sustainability Week (Abu Dhabi)

United Nations Special Planning Meeting for High Level Political Forum (New York)

Energy and Health Forum at the United Nations Energy Conference (Bangkok)

Women Empowerment Principles, UN Commission on the Status of Women (New York)

Princeton University "Saving Mothers and Babies" (Princeton)

Harvard University "Solutions in Planetary Health" (Cambridge)

Innovations in Healthcare Forum (Washington DC)

California Academy of Sciences (San Francisco)

New York Times, Facebook Live with Nicholas Kristof (New York)

Sustainable Energy for All Forum (Lisbon)

Columbia University Energy Forum (New York)

IRENA Rural Electrification for Healthcare (Singapore)

UBS Disruptive Technology Conference (Berlin)

The Conduit, "Women Entrepreneurs in Healthcare Delivery" (London)

World Health Organization First Global Air Pollution and Health Conference (Geneva)



*Planetary Health Alliance, Harvard University*



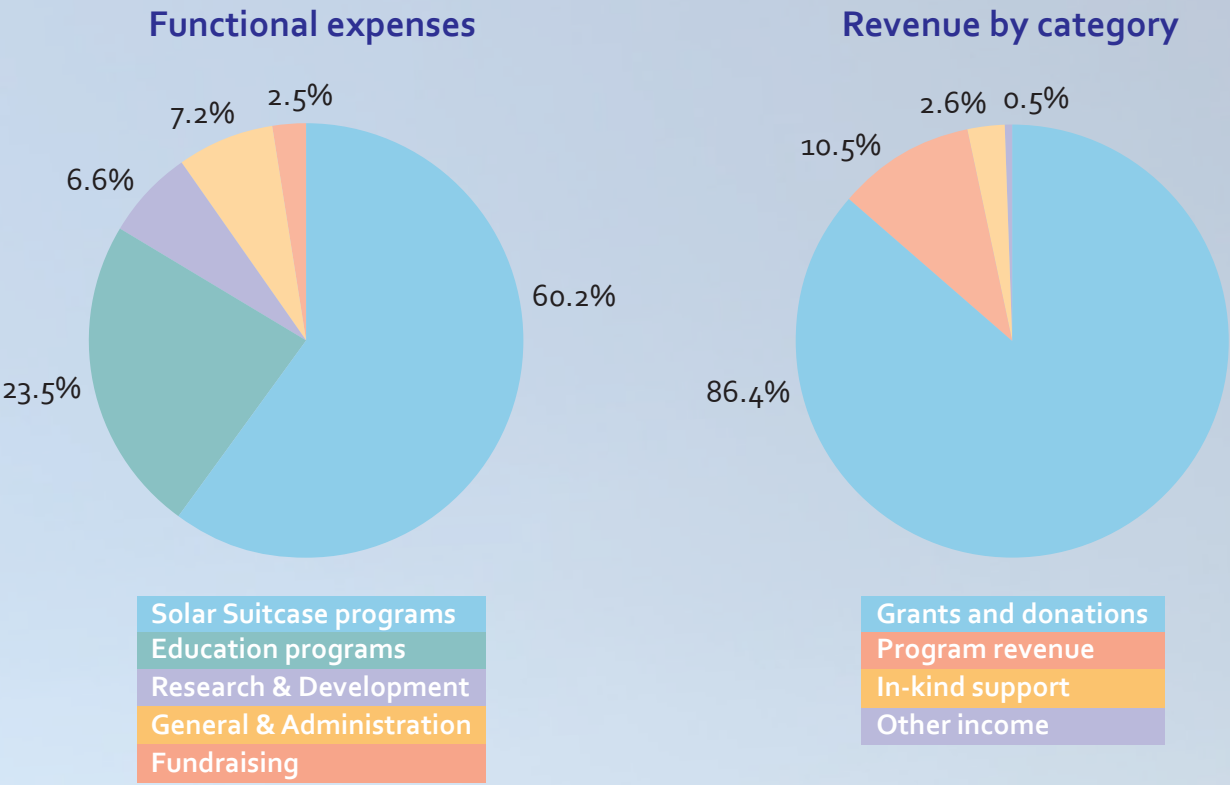
*Sustainable Energy for All Forum, Lisbon*



Statement of Activities for the Year Ending December 31, 2018 (Audited)

	Without Donor Restrictions	With Donor Restrictions	2018 Total	2017 Total
<b>REVENUE</b>				
Grants and donations	\$450,554	\$2,099,732	\$2,550,286	\$5,165,753
Program revenue	309,055	—	309,055	469,220
In-kind support	78,050	—	78,050	59,115
Investment return	11,860	—	11,860	19,534
Other income	3,158	—	3,158	17,552
Net assets released from restrictions:				
Satisfaction of program restrictions	3,944,436	(3,944,436)		
<b>TOTAL REVENUE</b>	<b>\$4,797,113</b>	<b>(\$1,844,704)</b>	<b>\$2,952,409</b>	<b>\$5,731,214</b>
<b>EXPENSES</b>				
Program services	4,081,578	—	4,081,578	3,204,168
Management and general	326,197	—	326,197	204,873
Fundraising	113,512	—	113,512	127,380
<b>TOTAL EXPENSES</b>	<b>\$4,521,287</b>	<b>—</b>	<b>\$4,521,287</b>	<b>\$3,536,421</b>
<b>CHANGE IN NET ASSETS</b>	<b>275,826</b>	<b>(1,844,704)</b>	<b>(1,568,878)</b>	<b>2,194,793</b>
<b>NET ASSETS, BEGINNING OF YEAR</b>	<b>1,895,758</b>	<b>4,950,879</b>	<b>6,846,637</b>	<b>4,651,844</b>
<b>NET ASSETS, END OF YEAR</b>	<b>\$2,171,584</b>	<b>\$3,106,175</b>	<b>\$5,277,759</b>	<b>\$6,846,637</b>

Financials





# Thank You

We are grateful for the generous support of all our donors, including the following institutions and individuals who have contributed \$10,000 or more:

## Principle Benefactors

ComEd  
CRI Foundation  
Gilead Foundation  
Jim and M.A. Rogers  
The Meadow Fund  
Music for Relief Foundation  
Pacific Gas and Electric Company  
Pathfinder International  
Roger I. and Ruth B. MacFarlane Foundation  
Starr International Foundation  
UBS Optimus Foundation  
UN DESA  
Wells Fargo Foundation

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Ocorian Trust  
Segal Family Foundation

## Key Supporters

Cal State University  
Montei Foundation  
MPH Fund of the Hawai'i Community Foundation

## Champions

Ian Altman and Laura Scher  
Brenda Brinker Bottum  
Creation Technologies  
Gigi and Jim Goldman  
Global Health Foundation  
Mission College  
Nina Richardson and Doug Condon  
Northern Arizona University  
Sonnedix USA  
State University of New York  
Trees, Water & People  
William and Elizabeth Patterson Family Fund





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Photo: Evelyn Fey