



WE CARE SOLAR

Annual Report 2023

Photo: Liz Hale

Dear Friends,


Life changes when the sun goes down for the one billion people living in communities lacking reliable electricity. Health workers struggle to provide care by the dim light of kerosene lanterns, postponing or canceling critical procedures. Students strain to study at night by candlelight. Teachers cannot properly prepare lessons in near darkness.

Access to reliable energy is a cornerstone of sustainable development. We Care Solar expanded our reach in 2023, delivering more than 1,000 Solar Suitcases to delivery rooms, operating theaters and maternity wards to ensure health workers could provide essential services and lifesaving care.

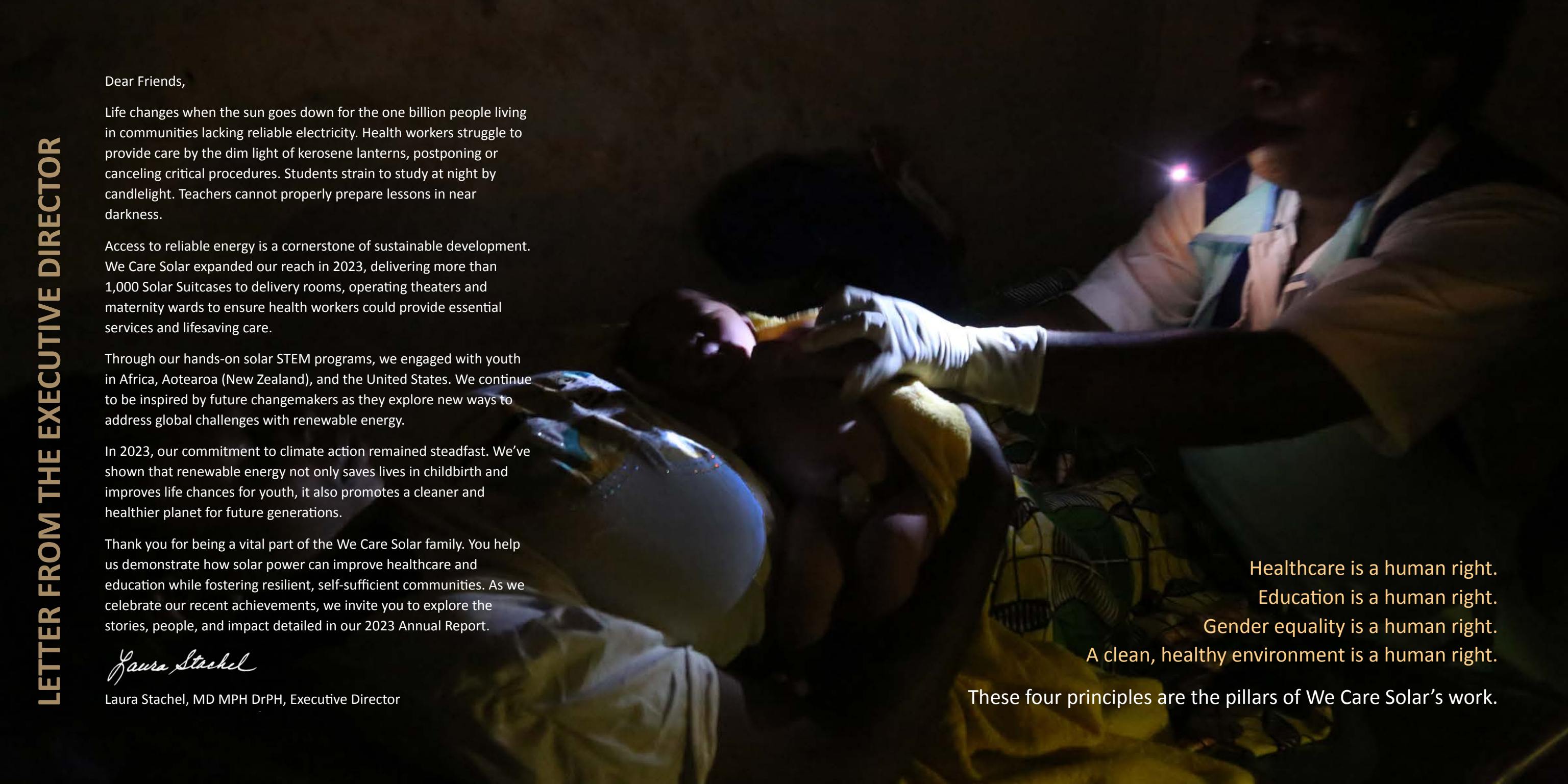
Through our hands-on solar STEM programs, we engaged with youth in Africa, Aotearoa (New Zealand), and the United States. We continue to be inspired by future changemakers as they explore new ways to address global challenges with renewable energy.

In 2023, our commitment to climate action remained steadfast. We've shown that renewable energy not only saves lives in childbirth and improves life chances for youth, it also promotes a cleaner and healthier planet for future generations.

Thank you for being a vital part of the We Care Solar family. You help us demonstrate how solar power can improve healthcare and education while fostering resilient, self-sufficient communities. As we celebrate our recent achievements, we invite you to explore the stories, people, and impact detailed in our 2023 Annual Report.

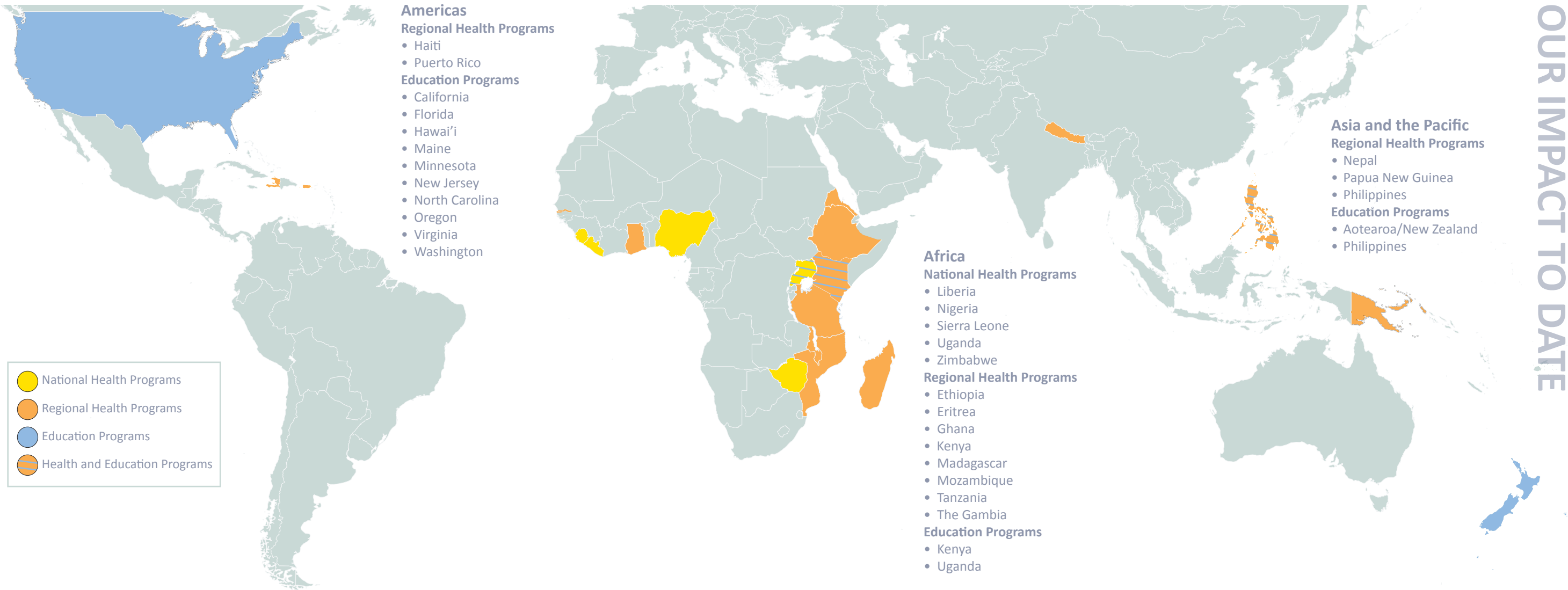


Laura Stachel, MD MPH DrPH, Executive Director



Healthcare is a human right.
Education is a human right.
Gender equality is a human right.
A clean, healthy environment is a human right.

These four principles are the pillars of We Care Solar's work.



15,603,970 mothers and babies served



59,000 students engaged in solar education



800 technicians, 34,911 health workers, and 571 teachers trained



10,129 Solar Suitcases deployed to health facilities and schools



278,553,890 hours of clean energy for health and education



116,534 tons of CO2 emissions averted

LIGHT EVERY BIRTH GLOBAL

We Care Solar's *Light Every Birth* initiative equips remote health clinics with life-saving solar power to ensure that every woman has access to a well-lit health facility for safe childbirth. In our national-level programs, we work in partnership with governments, health agencies, and energy companies to build capacity in solar installation, operation, and maintenance. We offer gender-inclusive trainings that promote women as installers and technicians in the rapidly expanding solar energy sector.

Light Every Birth programs also focus on environmental sustainability by displacing the use of candles, kerosene, and diesel fuel generators, thereby reducing greenhouse gases, black carbon, and air pollution.

Since the onset of *Light Every Birth* in 2017, We Care Solar has launched national programs in Liberia, Nigeria, Sierra Leone, Uganda and Zimbabwe. When countrywide solar installations are complete, we continue to work with our government partners to ensure program sustainability, keeping the lights on for years to come.

Building upon our current success, We Care Solar will soon be expanding *Light Every Birth* programming in new geographies—Tanzania, Malawi, and Mozambique.



Photo: Liz Hale

HEALTHCARE NIGERIA

Nigeria has one of the highest maternal mortality rates in the world, accounting for 29% of global maternal deaths in 2020. Tragically, Nigeria also accounts for one third of all newborn deaths. Access to quality healthcare for Nigeria's mothers and infants is critical.

We Care Solar team members conducted a landscape analysis to identify local partners and pinpoint Nigerian health facilities most in need of Solar Suitcases. Under the direction of Country Program Manager, Dr. Julie Yemi-Jonathan, we are taking a state-by-state approach to programming, with the aim of improving services for more than four million mothers and newborns in the first five years. We began our work in Kebbi State. Community engagement during the installations has been notable, reflecting the commitment of local government authorities and state-level leadership.

We know that *Light Every Birth Nigeria* will have a profound impact on mothers and midwives alike. When midwife Doshima Tom began working at Ambursa Primary Health Center, she was thrilled to learn that the facility had a Solar Suitcase. She no longer had to rely on light from her cell phone. Mothers are now coming for care from distant communities. Her busy facility averages 80 births a month, meaning that deliveries are happening night and day.

"The Solar Suitcase is very helpful and reliable. It is the only source of light. Pregnant women from nearby and faraway health facilities now prefer to access Ambursa for deliveries because of the reliability of the light provided by the Solar Suitcase."

— Doshima Tom, midwife, Ambursa Primary Health Center

Photo: Cognito Studios Photography





Photo: Laura Stachel

Photo: Laura Stachel

GLOBAL SUSTAINABILITY HEALTHCARE

Sustainability is a critical element of We Care Solar's *Light Every Birth* programs. Our aim is to maintain high-quality programs, establish robust supply chains, build technical skills of government technicians, and gradually transition full program ownership to our government partners.

In 2023, we conducted maintenance trainings with dozens of government technicians in Uganda and Zimbabwe to build core skills in Solar Suitcase assessment, maintenance, and troubleshooting. To date, the need for repairs has been minimal. Fixing a problem may be as simple as nudging a connector back to its original position or washing a solar panel to allow the solar batteries to fully charge each day.

Anticipating that over time some Solar Suitcases may require more significant repairs, we established a Solar Suitcase Maintenance Center in Kampala, Uganda. To build regional capacity for more complex technical work, our lead U.S. engineers provided advanced technical trainings with several certified Solar Suitcase installers. This training enables local technicians to address a range of technical issues including advanced servicing of circuit boards.

Over time, our goal is to create maintenance centers and robust service protocols in all of our *Light Every Birth* countries.

WOMEN & POWER

HEALTHCARE

We Care Solar is proud to be a women-led organization rooted in values of gender equity and climate justice. We ensure women and girls are included at every stage of our programs, with pathways for STEM learning, workforce development, and leadership positions in clean energy jobs.

Women are underrepresented in the renewable energy sector. Common barriers for women entering STEM fields are proscribed cultural norms, lack of gender-sensitive training, underdeveloped technical skills, and insufficient mentoring. We recognize and address these barriers in our program approach, and encourage girls and women to actively engage in STEM learning. Our women trainers, technicians and solar installers are female role models who push societal norms, encouraging more women and girls to consider STEM careers.

Two women from Sierra Leone spoke with us about their experience as Solar Suitcase installers. After Alima Morrison Sama completed her month-long training she shared, *“The training has been a pivotal turning point for me, serving as a pathway to independence within the renewable energy industry. It has empowered me to be self-reliant and provided stability and security in my life.”*

Alima and her female colleagues travel throughout Sierra Leone, often to the amazement of children who are shocked to see women solar installers in their villages. *“Anything a man can do, women can do even better,”* they explain.

“Being able to contribute to the implementation of solar solutions fills me with a profound sense of purpose and pride. It underscores the impact that individuals like myself can have on our country’s development, particularly in ensuring equitable access to essential services.”

— Alima Morrison Sama, installer

“I love doing this job. When I am doing the work, I know that I am saving the lives of pregnant women and I am also working for my country, Sierra Leone.”

— Hawanatu Mamie Kanneh, installer



Photo: Tolu Jethro Bade — Envizage Concepts

HEALTHCARE ZIMBABWE

When we toured the Mvuma Hospital in Zimbabwe, midwife Veronica Sidova opened the Solar Suitcase with a broad smile. *“This Solar Suitcase – it has given us light. We are very happy with it.”*

This seasoned midwife recounted her days providing maternal-newborn care in near darkness, before the Solar Suitcase was installed. *“You can’t imagine how difficult it was before. Working without reliable lighting means the loss of life. If you can’t see, how are you going to manage? It becomes a major problem.”*

Veronica described the ways that the lights and medical equipment within the Solar Suitcase are essential to her work as a midwife. She described past challenges she had caring for newborns. *“At times, we would have five to seven perinatal deaths in a month or two. Most of the deaths occur because of prematurity and neonatal asphyxia.”*

In the last five months, there has been a dramatic reduction in perinatal deaths – a change that Veronica ascribes to the

fetal heart monitor provided within the suitcase. *“The fetal Doppler is playing a vital role. We can detect fetal distress and then act on it. We provide the mother with intravenous hydration, we change the mother’s position, and give her maternal oxygen. If those things don’t help, we can refer her for a cesarean section,”* a procedure that saves lives.

Veronica shared other life-saving skills that depend upon light. For women with postpartum hemorrhage, she recounted the critical steps required to stop the bleeding and prevent maternal death. *“We check the mother’s vital signs, insert two intravenous lines, and begin an infusion of Pitocin to contract the uterus. We then check for vaginal tears and retained tissue in the uterus.”* Each of these tasks requires the ability to act quickly and see clearly.

“Light is important,” she emphasized. *“I can’t imagine doing anything without lighting. It’s essential.”*

Photo: Laura Stachel



We Share Solar

We Care Solar is dedicated to inspiring the next generation of global changemakers. Our We Share Solar education program offers STEM-positive learning experiences that link practical solar power engineering with humanitarian and community service. Students engage through the building and sharing of our 12-volt DC stand-alone solar system, the blue We Share Solar Suitcase.

Since 2013, We Share Solar has trained over 59,000 students through youth education programs. These students have assembled 3,350 We Share Solar Suitcases in their classrooms. They have shared renewable electricity with over 500,000 peers in energy-deficient international schools through the deployment of 1,117 student-built suitcases. Beyond Africa, our We Share Solar Suitcases have been used in United States homeless shelters, Native American community centers, and community emergency-preparedness kits.

In 2023, our solar education programs were implemented in school districts in California, North Carolina, Minnesota, Hawai'i and Florida, as well as schools in East Africa.

"As a teacher I love watching my students' attitudes and perspectives change as they complete the We Share Solar program. When they realize that they are helping others somewhere in the world to have basic electricity, something my students and I take for granted, it changes them forever."

— High School science teacher, California

Photo: Brian Emmanuel Inganga





A Decade of Inspiring Students

We Share Solar celebrated its 10th anniversary of providing hands-on STEM education to youth with special events in Kenya and Minnesota.

In May, our staff gathered in Nairobi with twenty-five installers and other partners as part of a larger training workshop to exchange experience, share knowledge, and advance skills.

In August, we gathered more than ninety teachers, students and supporters to celebrate the occasion at the Bakken Museum in Minneapolis. We also trained a new cohort of teachers from twelve Minneapolis and St. Paul schools, making Minnesota our largest program state with sixty-two participating schools!

Photo: Brian Emmanuel Inganga



Photo: Anna Gomberg

Partner Training and Solar Advocacy

In May 2023, We Share Solar staff traveled to Kenya to host our first East Africa Regional Partner Training and field visit. Seven team members spent three days in a hands-on technical training and knowledge-sharing workshop that culminated in a day of installing four Solar Suitcases at a children's home and school near Nairobi. Twenty-two partners from Kenya and Uganda participated in this solar installation training and tested new curriculum being adapted for our partners to deliver in workshops with East African students.

Solar Advocacy

In the fall, We Share Solar's Senior Program Manager for Education, Anna Gomberg, traversed the United States for presentations at science teacher conferences on both coasts. Anna presented her session, "Green Engineering Design: Stand Alone Solar Systems," to teachers at the New Jersey Science Convention and the California Association of Science Educators Conference. Attendees were especially interested in the hands-on energy management activity that illustrated how to use a Solar Suitcase in the event of an emergency at their schools.

EDUCATION UNITED STATES

Thanks to funding from Edison International, Myriam Islas, a Chemistry teacher at Schurr High School in Montebello, CA, brought the real-world impact of solar education to life after Montebello's 2023 tornado.

In March of last year, Montebello experienced its strongest tornado in 40 years, with winds up to 110 mph. With support from the school district and We Share Solar, Myriam and her colleagues integrated We Share Solar's technology into both their curriculum and emergency preparedness plans. Student-built We Share Solar Suitcases will be deployed in high schools in Montebello, becoming crucial assets during power failures and powering walkie-talkies for teachers to maintain communication. This will ensure safety and coordination during a crisis, even for schools that lose power.

We Share Solar supports teachers with professional STEM development workshops, new curriculum implementation,

webinars, one-on-one support, newsletters, and peer connecting sessions. This comprehensive approach empowers educators like Myriam to incorporate solar technology into their classrooms effectively and confidently while showing solar's real-world applicability in emergency situations.

Through proactive emergency preparedness, Myriam and her colleagues exemplify the resilience and dedication of educators in Montebello and beyond. They harness the power of the sun for education and emergency response, demonstrating a commitment to their students' and community's safety and well-being.

"Participation in the Solar Suitcase program reflects teachers' unwavering dedication to their classrooms. The extra work this requires is greatly appreciated by We Share Solar and all the students," said Anna Gomberg, We Share Solar Senior Program Manager.



Photo: Stephen Maturen

2023 RECOGNITION



Dr. Stachel was invited to speak at the **UN Climate Change Conference** in Dubai (COP28) and presented our efforts on three panels: one on women's leadership, one on healthcare and renewable energy, and one on building resilient communities.

Awards

We continue to win awards for our impactful work. In 2023, we received the **National Energy Globe Award** for our work in Sierra Leone. Our Executive Director, Dr. Stachel, was thrilled to receive the **AARP Purpose Prize**. And we were finalists for the **ETF Green Skills Award**.



Climate Action



Clean Energy

We continue to advocate for access to clean energy for safe motherhood and better healthcare. In 2023, African team members spoke at **UC Berkeley School of Public Health** on the impact of solar energy on healthcare, and at the **Uganda National Conference on Health, Human Rights and Development**.

We are researching ways to make the Solar Suitcase better for humanitarian responders. Brent Moellenberg, Director of Engineering, and Kim Gordon, Director of Operations, showcased the Solar Suitcase at the 2023 **AidEx** humanitarian aid conference. Dr. Stachel also interviewed Red Cross and Red Crescent early responders at **COP28**.

Innovation



Safe Motherhood

Team members Phionah Abaho Bruce, Feza Greene, Dr. Ambrose Katungi Muhwezi, and Dr. Laura Stachel presented at the **International Maternal and Newborn Healthcare Conference** in Cape Town, the **National Safe Motherhood Conference** in Uganda, and the **International Confederation of Midwives** in Bali.

Our We Share Solar education program was featured at the **New Jersey Science Convention** and the **California Association of Science Educators Conference**, with Senior Program Manager Anna Gomberg presenting.

Education



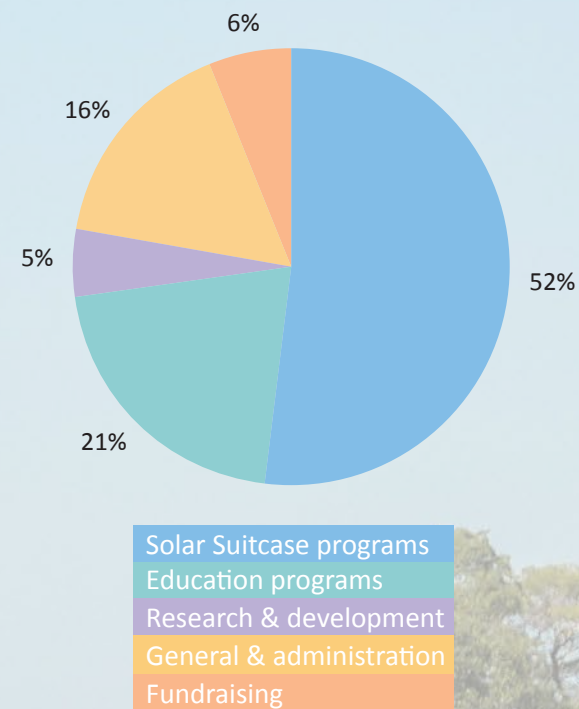
FINANCIALS

Statement of activities for the year ended December 31, 2023

	Without Donor Restrictions	With Donor Restrictions	2023 Total	2022 Total
REVENUE				
Grants and donations	\$4,061,092	\$3,930,193	\$7,991,285	\$3,570,827
Program revenue	464,730	—	464,730	231,153
In-kind support	85,016	—	85,016	214,811
Other income	132,212	—	132,212	21,643
Net assets released from restrictions:				
Satisfaction of program restrictions	3,300,944	(3,300,944)	—	—
TOTAL REVENUE	\$8,043,994	\$629,249	\$8,673,243	\$4,038,434
EXPENSES				
Program services	3,558,290	—	3,558,290	4,925,166
General & administration	755,859	—	755,859	575,852
Fundraising	269,299	—	269,299	142,931
TOTAL EXPENSES	\$4,583,448	—	\$4,583,448	\$5,643,949
CHANGE IN NET ASSETS	3,460,546	629,249	4,089,795	(1,605,515)
NET ASSETS, BEGINNING OF YEAR	2,411,980	6,022,655	8,434,635	10,040,150
NET ASSETS, END OF YEAR	\$5,872,526	\$6,651,904	\$12,524,430	\$8,434,635

*Revenue includes multi-year grants

Functional expenses



Revenue by category

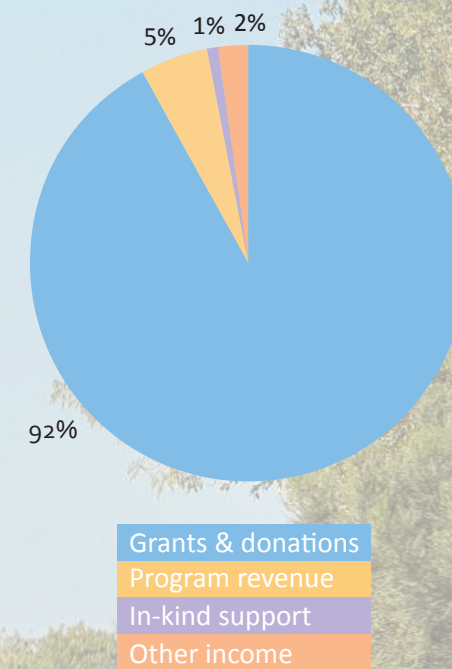




Photo: Ofen Mutumbami

GLOBAL PARTNERS

Health Partners

All in Trade Ltd. (Uganda)
AVSI Foundation (Uganda)
Babies and Mothers Alive (Uganda)
CARE (Sierra Leone)
Clinton Health Access Initiative (Uganda)
Doctors with Africa CUAMM
(Sierra Leone, Uganda)
Ekide Investments Ltd. (Uganda)
Engineering World (Zimbabwe)
Feni Certified Installation Team (Uganda)
GOAL (Sierra Leone)
Hamlin College of Midwives (Ethiopia)
Health Partners International of Canada (HPIC)
Healthy Child Uganda (Uganda)
Ignite Solar (Sierra Leone)
International Rescue Committee (Sierra Leone)
IntraHealth International (Uganda)
Muss'ab Global Concept (Nigeria)
Ned Solar Company (Nigeria)
Save the Children (Sierra Leone, Uganda)
UNFPA (Sierra Leone)
USAID Integrated Health Program (IHP) (Nigeria)
White Ribbon Alliance (Uganda)
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
Kebbi State Government, Nigeria

Education Partners

United States

California State University
Charlotte-Mecklenburg Schools
Creation Technologies
KQED Education
Los Angeles Unified School District
Minneapolis Public Schools
Oakland Unified School District
Remote Energy
Repowering Schools
Sarasota County Schools
STEM Forward
St. Paul Public Schools
Trees, Water & People

Global

254 Solar (Kenya)
ALIGHT International (Uganda)
Kabale University (Uganda)
Kakenya School for Excellence (Kenya)
Kia Kotahi Ako Trust (New Zealand)
LOOMA Education (Nepal)
Women in Sustainable Energy
and Entrepreneurship (Kenya)
WISER International (Kenya)

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Anonymous in loving memory of Henry
Anonymous Foundation
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CRI-Foundation
Energias de Portugal
Judith Neilson Foundation
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Meadow Fund
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Susan Igladoff
Ms. Foundation for Women

THANK YOU
SUPPORTERS



Photo: Liz Hale

Annual Report design by WinterGraphics, Berkeley, CA



Every day, We Care Solar and our partners work to improve the lives of women, infants, and children with clean solar power. Our mission has an immediate, life-transforming impact that is only accomplished thanks to your kindness.

Donations gratefully accepted online at:

www.wecaresolar.org/donate



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