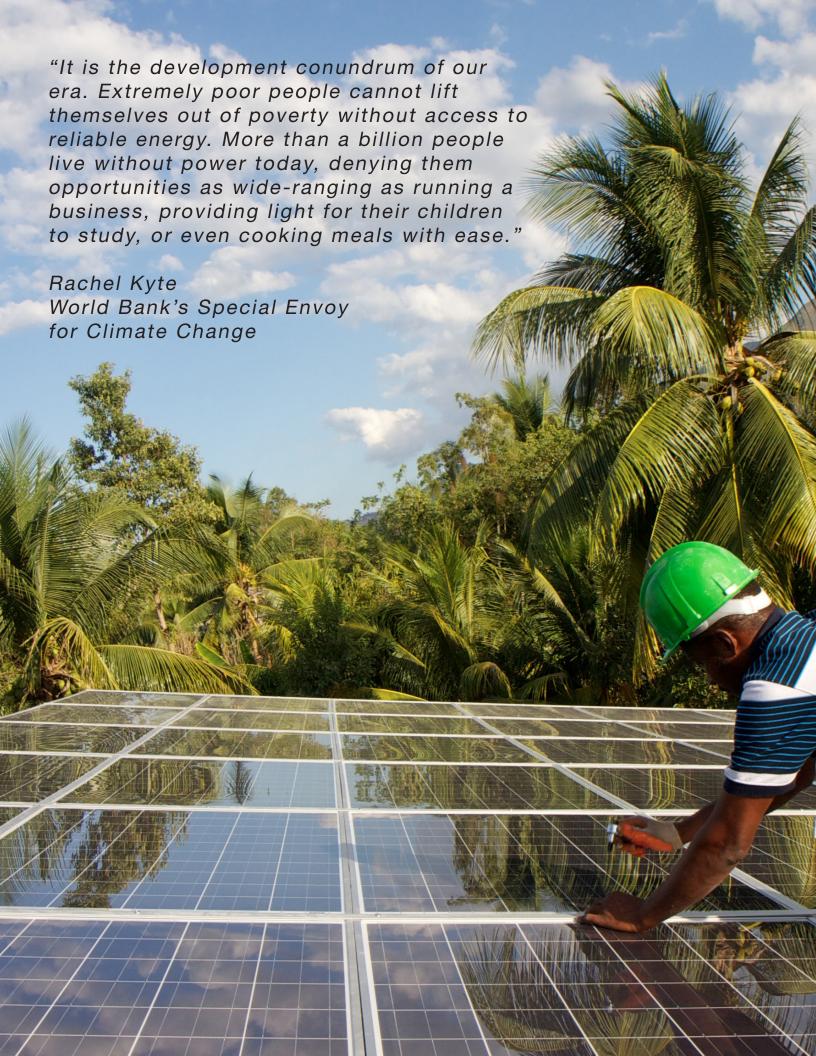


Solar Electric Light Fund 2018 Annual Report





LETTER FROM OUR





Dear Friends,

Climate change has disproportionately impacted the world's poor. Among other things, they find it increasingly difficult to grow food and find clean water. They are also at far greater risk of contracting virulent diseases. Sadly, the more our society consumes, the more "last milers"—those who will likely never be connected to a conventional power grid—will suffer the greatest from climate change.

SELF's resolve to seek solar solutions to reduce the vulnerability of the world's energy poor is clearly illustrated in this 2018 Annual Report. Our projects range from solar system installations to the creation of training programs and the development of novel solar technologies.



In partnership with the United Nations Foundation, we completed solar installations for 62 health clinics in Uganda and Ghana. Subsequently, we provided solar system training to staff at each facility. The World Health Organization is documenting the healthcare delivery changes in those 62 facilities to measure the impact of bringing solar electricity to rural clinics. In Benin, we deployed nine solar-powered water stations and began installing another nine to be completed in early 2019. In addition, we brought solar electricity to the classrooms and dormitory of the local school in the Arhuaco indigenous village of Katansama in northern Colombia.

The SELF staff made great progress creating new project sustainability models, writing the curriculum for our second-year solar training course, and completing the final step to get the World Health Organization's endorsement for vaccine refrigeration manufacturers to include our solar energy harvest device in their appliances—resulting in the delivery of solar electricity to critical medical equipment in rural clinics. Read the pages ahead for more details about these projects.

We are putting our hearts and souls into the fight to eradicate energy poverty. SELF strives to bring improved health, food and water security, and modern education to our global south neighbors—represented by the faces you see in this report. They are the reason that we will never stop looking for new ways to use the power of the sun to help humanity thrive. Thank you to our supporters for furthering our efforts in 2018.

Warm Regards,

Bob

Robert A. Freling Executive Director



Bringing Light to Colombia's **Ancient Arhuaco Culture**



The delighted cheering of these Arhuaco children could be heard throughout the coastal Colombian community of Katansama on the night that SELF turned on the lights of their dormitory for the first time. Having electricity means that their school can connect them through the internet to outside resources—providing them with a modern education to help break the cycle of poverty.

SELF was asked to help in the establishment of a major Arhuaco cultural and leadership center in the indigenous community of Katansama. It is located along the northern coast of Colombia where the culture once thrived until the Arhuacos were forced into the Sierra Nevada de Santa Marta Mountains by various colonial factions. After the fall of colonial rule, the Arhuacos' ability to maintain their traditions and culture was impeded by the Colombian government.

Katansama provides the Arhuaco tribe with a direct connection to the Caribbean Ocean for the first time in 500 years. As part of its emergence, it will integrate reliable, clean solar electricity into its community infrastructure. For the first phase of the project, SELF installed a solar micro-grid to power school buildings, a dormitory, and a food service center. A SELF donor arranged for a brief documentary to be produced about the Katansama project. It can be viewed at: https://vimeo.com/293383019





Electrifying Clinics in Uganda and Ghana



Giving birth at night in remote health clinics in Africa has long been feared by women with high-risk pregnancies. Those who have access to any one of the 62 clinics in Uganda and Ghana, where SELF and our local partners installed solar systems, no longer have the same concerns. Electricity to power lights and medical equipment reduces the likelihood of tragedy and heartache for these women and their families.

The installations, spearheaded by the United Nations Foundation (UNF) and funded by the **UK** Department for International Development (DFID), will dramatically upgrade medical care for local populations, especially women and children. SELF met all benchmarks of the project,



including technical training for staff at the clinics. The installations will now be studied by the World Health Organization (WHO) to document the benefits that electricity brings to medical services in these remote clinics. A letter from an official with UNF reads: "The impact study... will confirm what we all know: This matters. Lives are saved, the quality of care improves, and health-seeking behavior increases. Furthermore, we have moved an institutional needle, by building capacity in the health sector through our numerous trainings, but also by deploying systems of such a high quality that will influence future projects in the health sector."



Installing Clean Water Stations In Benin



When those living in the arid Kalalé District of Benin are provided with easy access to clean water within walking distance of their homes, they receive multiple benefits: They avoid the ravages of waterborne diseases; women and girls no longer have to risk assault from human and wildlife predators; and, rather than spending several hours a day collecting water, they have time to pursue other activities.

SELF worked since the beginning of 2018 to raise money for installation of up to 24 clean water stations in Benin. Nine were fully installed in Kalalé District, and nine more installations, supported by OFID, began at the end of 2018. Their completion is targeted for early 2019. A major funder indicated that there could be additional support for the installation of 24 more water stations (along with solar healthcare interventions) by the fall of 2019.





Creating Highly Skilled Solar Technicians



It is difficult to improve your lot in life when there are no job training opportunities available, especially if you are a woman. When SELF launched the National Solar Training Center in Haiti in 2017, nearly half of the students were women. Upon graduation in 2018, two of them immediately started their own solar businesses. Others found gainful employment—a major step in tipping the gender scales to the center. As women take advantage of this opportunity, they are bringing value to the skilled work force as well as supporting the country's efforts to bring electricity to all.

The English version of training program's second-year curriculum, funded by OFID, was completed in 2018, with expectations that additional funding could be procured for translating the second-year program into French in 2019. Since launching the Haitian program, SELF has received requests to provide training programs in other developing countries such as Niger and for other schools within Haiti. Concurrently, UN Electric, a new division of the UN, asked SELF to be its vocational education arm to build capacity in targeted countries. This process has begun with SELF writing a training proposal on behalf of the Government of Antigua and Barbuda. Clearly, the more solar technicians SELF trains throughout the world, the faster we can build solar infrastructure in countries that need it.

Repairing Hurricane Matthew's Assault on Solar Installations in Haiti

Between political instability, disease outbreaks, earthquakes, and hurricanes to name a few of the calamities that have plagued Haiti, its citizens suffer tremendous disadvantages. That was the case when Hurricane Matthew slammed the country in late 2016. Just before the storm, 12 health centers had received photovoltaic (PV) systems. The storm virtually destroyed the installations – leaving communities vulnerable when the cholera outbreak followed. Had there been electricity to pump and purify clean water and to power medical facilities, the scene might have been less tragic for thousands of people.



In 2018, with support from the UN Environment Programme (UNEP) and the Inter-American Development Bank (IDB), SELF made preliminary repairs to the PV systems of 12 health centers and a micro-grid damaged by Hurricane Matthew, but major funding was needed to complete the job. Long delayed, an IDB grant was finalized in December 2018 for SELF to complete the job of repairing and building the damaged solar infrastructure in 2019. The new design is engineered to withstand category four hurricanes.



Other Developments

While we were working in the field in 2018, we were also exploring new concepts and, in one case, celebrating the success of a fully developed initiative.

SELF invented a new technology which we refer to as an "energy harvest device." It enables off-grid health facilities to power basic needs from otherwise wasted solar electricity produced by direct-drive, battery-free solar vaccine refrigerators. We made the device open source so that it could reach those who need it. SELF managed the field testing of the device in Senegal—a requirement by the World Health Organization (WHO) before it would endorse the device for global distribution. This led to a major milestone for SELF: Starting in 2018, solar



refrigerator manufacturers started incorporating the energy harvest device into their next generation of solar vaccine refrigerators, and the Global Alliance for Vaccines and Immunization (Gavi) added a solar energy harvest component to its largest-ever vaccine refrigerator procurement program (\$250 million over five years).



In 2018, we spent countless hours crafting unique sustainability plans to ensure that our field installations can last into perpetuity. We concentrated on two projects that we expect will serve as models for future installations. The first provides solar electricity to the College Marie Reine Immaculée in Port-au-Prince, Haiti, and the second seeks to reduce sexual assault in Uganda through the Rape Hurts Foundation by installing solar solutions for water gathering and cooking. Since neither organization has funds to pay for repairs and maintenance for their solar systems, SELF has worked with them to create revenue streamsmostly through the use of solar applications (like cell phone charging stations, solar-powered grain mills, and solar refrigerators to sell cold drinks)that could keep their solar systems running for decades. We will apply similar models to future projects.

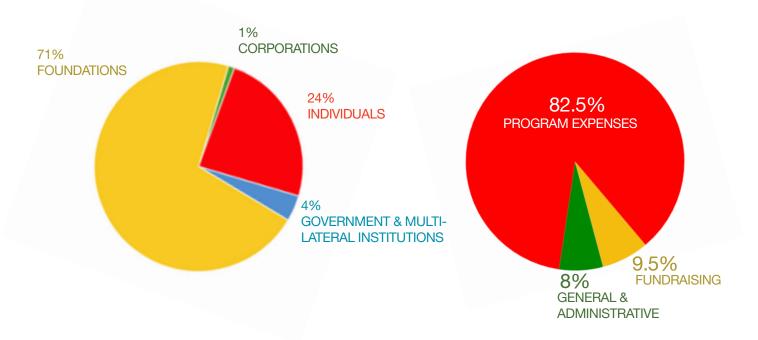
We also spent time in 2018 contemplating an updated framework to advance SELF's mission of scaling energy access in the developing world. After years of operating under the radar, we find ourselves getting more attention as the topic of energy access becomes an increasingly prominent social and political issue worldwide. From our nearly 30 years of operation, we understand the issues and are poised to take action on high-level initiatives as we embark on the next chapter of our growth. Twenty eighteen laid the groundwork for us to pursue that goal.



FINANCIAL HIGHLIGHTS

SELF Revenue in FY18

SELF Expenses in FY18



SELF made some significant project accomplishments during 2018, including final installation of 62 health clinics in Uganda and Ghana, procurement and preparation for installation of 9 clean water stations in Benin, and development of a second-year curriculum for PV technology at Haiti Tech. As these projects did not involve large procurements of equipment, project revenue and expenses decreased from the prior year. However, the year also involved significant efforts in development for programs to install an additional 24 water stations in Benin, develop PV training programs for other countries in the Caribbean and Africa, and repair and enlarge a micro-grid in Southern Haiti that will provide electricity to three towns. These development efforts should result in higher project revenue and expenses in the coming years.

The financial results depicted on the next page are derived from the SELF audited December 31, 2018 consolidated financial statements, which received an unqualified opinion. SELF's complete, audited financial statements can be found on our website www.self.org.

FINANCIAL HIGHLIGHTS

STATEMENT OF ACTIVITIES For the Period Ended December 31, 2018

(With Summarized Financial Information for the Year Ended December 31, 2018)

	UNRESTRICTED	TEMPORARILY RESTRICTED	2018 TOTAL	2017 TOTAL
REVENUE AND SUPPORT				
Contracts	\$ 778,684	\$ 692,347	\$1,397,942	\$1,223,637
Grants and donations	705,595	-	778,684	3,318,811
In-kind revenue	16,384	-	16,384	125,438
Interest and other income	3,337	-	3,337	1,881
Net assets released from restrictions				
Satisfaction of program restric	etions: 614,812	\$(614,812)	-	-
TOTAL REVENUE AND SUPPORT	2,112,138	77,535	2,189,673	4,669,767
EXPENSES				
Program Services	1,939,980	-	1,939,980	4,143,513
Management and general	191,203	-	191,203	226,937
Fundraising	225,521	-	225,521	224,526
TOTAL EXPENSES	2,356,704	-	2,356,704	4,594,976
CHANGE IN NET ASSETS	(244,566)	77,535	167,031	74,791
NET ASSETS, BEGINNING OF YEAR	248,856	602,644	851,500	776,709
NET ASSETS, END OF YEAR	\$ 4,290	\$ 680,179	\$ 684,469	\$ 851,500





ORGANIZATION

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Freeman J. Dyson Professor Emeritus Institute for Advanced Study

Robert A. Freling Executive Director Solar Electric Light Fund

Jonathan W. Postal Senior Vice President Clean Energy Collective Mary Green Swig President & Chief Executive Officer Mary Green

Steven L. Swig, Chair President Emeritus & Co-founder Presidio World College

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Darren Anderson (Page 4 Top, Page 10)

Staff

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Darren Anderson Project Manager

Jean-Baptiste Certain Project Manager

Kathy Cesere Project Administrative Assistant Lisa Esler Finance Director

Robert A. Freling Executive Director

Jeff Korcan Design Engineer & Project Manager

Victoria Knabe Office Manager & Development Associate Jeff Lahl Project Director

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Claude Rodne Senior Technician, Haiti

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Allison Barbaro

Levko Karmazyn

Angelica Shaw

Volunteers

Osiris McCarney

