

# 2013

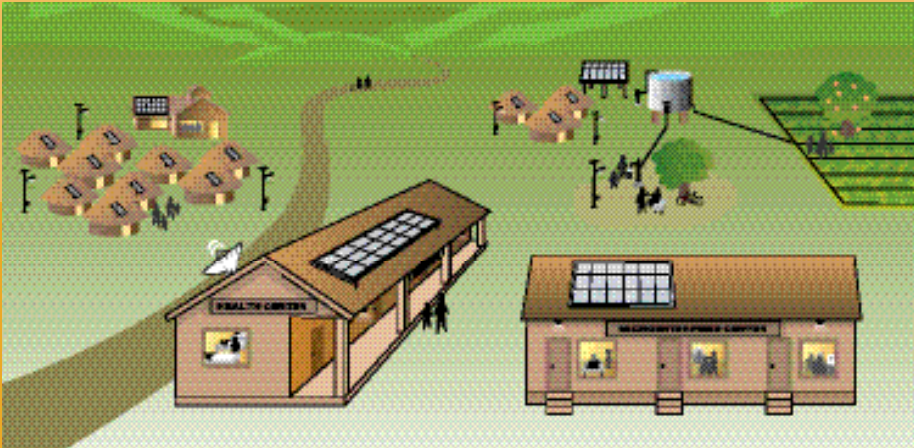
ANNUAL REPORT



*Solar Electric Light Fund*

ENERGY IS A HUMAN RIGHT™

# Whole Village Development Model



SELF's Whole Village Development Model takes an integrated approach to community empowerment, using a diverse mix of solar energy solutions to improve the lives of people who don't have access to electricity. By working closely with communities and adhering to our operating principles of SELF Determination, SELF Help and SELF Reliance, we seek to ensure benefits in education, health, water and agriculture, enterprise, and community:



**EDUCATION:** powering lights, computers, and wireless internet services.



**HEALTH:** powering clinic lights, labs, diagnostic equipment, and vaccine refrigerators.



**WATER & AGRICULTURE:** powering water pumps for clean drinking water and year-round crop irrigation.



**ENTERPRISE:** powering centers for small businesses and providing electricity for machinery and equipment.



**COMMUNITY:** electrifying homes, community centers, water wells, and street lighting.

## ENERGY IS A HUMAN RIGHT™

SELF believes that energy is a human right and that access to modern energy services is essential to achieving the UN Millennium Development Goals (MDGs). The Whole Village Development Model projects in this report highlight how SELF is helping to achieve those goals.



# LETTER

## FROM OUR EXECUTIVE DIRECTOR



Dear Friends,

For many of the 1.2 billion people living in energy poverty, access to electricity remains but a distant dream. However, SELF believes that energy is a human right, and is working tirelessly to deliver clean, renewable, modern energy services to impoverished communities across the globe.

Since 2008, our solar systems have touched the lives of more than one million people. This year alone, your support helped us to power seven new schools to benefit over 2,000 students, and install 20 solar street lights in Boucan Carré to help provide community safety in Haiti's central plateau. In the mountain village of Sabana Crespo in northern Colombia, we used solar power to keep vaccines cold so that more children can be immunized, and began taking steps to solarize a health clinic, school and other services for the people of the indigenous Arhuaco tribe. And, in Benin, West Africa, we completed eight new Solar Market Gardens™ to further enhance food security and installed 34 street lights to improve public safety and facilitate business during evening hours.



SELF's projects have shown just how critical energy is to improving the health, education, and economic prospects of the world's poorest citizens. We are very grateful for your support. Thank you!

With gratitude,

A handwritten signature in blue ink that reads "Bob".

Robert A. Freling  
Executive Director



# BENIN AFRICA

## Food Security, Education and Health

Our Whole Village model is nearing completion in Benin. This year we expanded our Solar Market Gardens™ (SMG) by completing eight new gardens in Kalalé, four of which we began installing in 2012. This brings the total number of SMGs to 11 since 2010; they are expected to serve approximately 48,000 people, further enhancing food security in the region. We also installed solar systems at two schools and a health center in the villages of Dunkassa and Bessassi to further enhance the health and education of the communities.



## Enterprise

The planning, organization, and construction of our solar powered micro-enterprise center was a major focus this year. SELF worked closely with the local community to determine its size, energy requirements, construction schedule, and the types of occupants. Three buildings, constructed in the shape of a horseshoe, will house ten “boutique” spaces. The buildings will form a center of economic activity, bring businesses together, and create a consistent market for Dunkassa and Bessassi.



The center courtyard, shaded by a solar array that powers the buildings, will create an inviting space for additional, smaller vendors. Construction began in November and is expected to be completed in the summer of 2014.



## Community

In 2013, a total of 34 solar street lights were installed in Bessassi and Dunkassa. The lighting has increased activity in the villages, and perhaps more importantly, it has improved public safety, particularly for women in the community, by illuminating areas that once were completely dark.

In addition to the street lights, six additional solar powered LED lights were installed under the roofs of each village's market pavilion. The lights have resulted in an increase in nighttime market activity in addition to longer hours for the weekly open-air markets.



## Sustaining Our Systems

Following the major classroom and fieldwork training session for ADESCA's solar technicians and local electricians that was held last year, ongoing solar training has continued to take place through operations and maintenance activity. Additional irrigation and agricultural training has been carried out for the women farmers at all 11 SMGs, and a second intensive solar photovoltaic training program is being planned in advance of the micro-enterprise center installations.





# COLOMBIA

## Health and Education

Approximately six million of Colombia's 46 million people live without electricity. In 2011, SELF began to explore ways to power indigenous villages throughout Colombia through projects such as the Colombian Government's Cordon Ambiental y Tradicional de la Sierra Nevada de Santa Marta (CAT), which seeks to provide indigenous communities with basic facilities in health and education



using solar power. SELF's initial project, funded by the Bill & Melinda Gates Foundation, was to field test three solar-powered, battery-free vaccine icepack freezers to support immunization efforts in three remote villages — Sabana Crespo, Nabusimake, and Gunchukwa — located in the Sierra Nevada mountains of northern Colombia. The goal of this pioneering work is to power vaccine refrigerators and freezers with solar energy — but without batteries — as a model that can be used to extend immunization services to other remote parts of Colombia and elsewhere in the developing world.





SELF continues its work in Sabana Crespo, working with members of the Arhuaco tribe to pursue the benefits of using solar electricity to power their school, health clinic, dental equipment, refrigeration in the children's nutrition center, and an electronic scale and light in the community's coffee production facility.



After an in-depth assessment of the energy loads of the buildings and many discussions about the priorities of the local community, SELF:

- ▶ Determined that a solar microgrid could meet all energy demands during the day;
- ▶ Identified hydro power as an additional alternate power source that could be used with the micro-grid to reduce the buildings' dependence on batteries at night and battery replacement over the long-term; and,
- ▶ Identified ways the community could use or sell power to generate the income needed to cover the solar system's operations and maintenance expenses.



We anticipate these projects to be completed in 2014. The ability to expand SELF's work into South America is a positive step towards implementing our Whole Village Development Model across the globe. By using solar energy to power health care and education facilities in Sabana Crespo, we are providing essential services to a community that has historically avoided the assistance of outsiders. It is our goal to ensure that the solar systems installed are successful and sustainable over the long term so that they may be replicated in other villages throughout the region.



# HAITI



Our work in Haiti continues to expand, serving a growing number of people and communities.

## Education

This year we solarized six primary schools and one junior high school in the Boucan Carré district of Haiti's Central Plateau, benefitting close to 2,000 students in the communities



of Georges, Vyet, Bois-Joli, Pouillée, Pagès, Bellevue, and La Chaussée. The communities were very difficult to reach. Delivering the solar equipment to these remote sites required crossing rivers in small row boats and either hand-carrying or transporting the equipment by mules the

rest of the way. Students are now able to attend schools with lights and computers, and because the lights at nearly every school remain on in the evening, new classes have been added such as adult literacy courses. The light also attracts small vendors in the evening, increasing social and commercial activity in the community.

## Community

We also expanded our work related to community safety by installing twenty solar-powered street lights around Boucan Carré. Eighteen were located along roads between Dufailly and Carrefour Georges,



and Domond and Boucan Carré itself. Two others were installed in Sivol, an isolated village deep in the mountains. All of the lights were placed in locations that are considered to be dangerous, such as in high-crime areas where assaults against women have occurred, and along a fast-flowing river.





## Health

SELF partnered with the Centers for Disease Control and Prevention (CDC) and UNICEF to inspect and repair 153 solar vaccine refrigerators previously installed by the Haitian Ministry of Health (MOH) in rural health posts throughout the country. The majority were experiencing a variety of equipment and installation problems, and prior attempts to repair them were either unsuccessful or did not meet the requirements to properly preserve vaccines.

SELF conducted site visits to 26 health posts to troubleshoot the failed installations and recommend repair plans, in addition to visiting 17 larger, district-level facilities to plan for the installation of 70 new battery-free vaccine refrigerators. The installations are underway and are expected to be completed in 2014.

As a result of this work, the CDC has contracted with SELF to provide ongoing, multi-year repair and technical support for the systems, train MOH staff, and install over 500 new solar vaccine refrigerators at district and rural health post facilities throughout Haiti, starting in 2014.

## Solar Microgrids in the Sud and Central Plateau

In partnership with the Inter-American Development Bank (IDB), United Nations Environment Programme (UNEP) and the National Rural Electric Cooperative Association (NRECA), SELF began the design of a hybrid solar-diesel microgrid to provide power to approximately 15,000 people in the communities of Port-à-Piment, Coteaux and Roche-a-Bateau in the South Department of Haiti. SELF, with additional support from IDB, also began design of a solar microgrid that will provide power to the community of Fe-Yo-Bien in Haiti's central plateau.





# HAITI CONTINUED

Microgrids consist of interconnected solar arrays that deliver electricity to multiple users in a community. This configuration offers an alternative to the stand-alone systems SELF has previously installed, and is particularly well suited for use in achieving our Whole Village Development Model.

The microgrids will provide safe, reliable, and affordable electricity to the communities, in addition to powering a 10-tenant microenterprise center in Fe-Yo-Bien, helping to improve small-scale commercial activity there. The installation will begin in 2014 and the projects are expected to be completed in 2015.

## Sustaining Our Systems

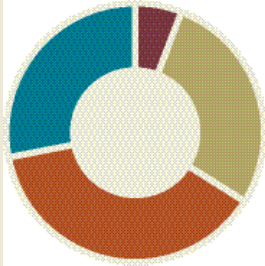
SELF employs seven solar technicians in Haiti that install, operate and maintain our solar systems. In addition, we have trained hundreds of people at our partner organizations about the benefits of solar and how their work impacts the performance of the solar systems we have installed on their facilities.

In the future, not only do we expect to continue designing and installing solar systems for rural communities that do not have electricity, we will also offer our expertise to the Government of Haiti and to the country's nascent solar industry by developing a proposal to establish a technical training and education program at a national solar training center to be located in Port-au-Prince.



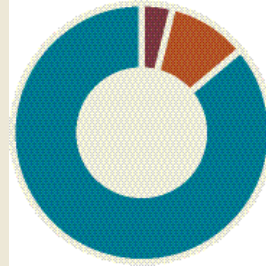
# FINANCIAL HIGHLIGHTS

SELF Revenue in FY13



- ▶ Corporations (6%)
- ▶ Individuals (28%)
- ▶ Government & Multilateral Institutions (38%)
- ▶ Foundations (28%)

SELF Expenses in FY13



- ▶ Fundraising (4%)
- ▶ General & Administrative (10%)
- ▶ Program (86%)

Financially, 2013 was a year of transition and new opportunities. Grant revenue in general, and from foundations in particular, dropped off as SELF pursued new opportunities in fee-for-service projects with Government and multi-national organizations. Due to accounting rules, this resulted in a drop in revenue and net assets for 2013, but as the activities under these new contracts move forward, revenue for these efforts will be recognized in 2014 with a corresponding increase in total revenue and net assets. The largest of these new projects is the development of solar micro-grids to power entire towns in Haiti in conjunction with the IDB, UNEP and NRECA. SELF has also become more active in the healthcare field, providing consulting expertise to the World Health Organization and installing solar powered vaccine refrigerators with UNICEF and the CDC. SELF expects to build on this experience significantly in the coming years.

During 2013, temporarily restricted net assets dropped off as SELF completed many of the grant projects awarded in prior years. As noted above, most of the new projects for 2013 were in the form of fee-for-service contracts that are recognized as unrestricted revenue when the services have been provided with less new temporarily restricted grant revenue.

The financial results depicted on the next page are derived from the SELF audited December 31, 2013 consolidated financial statements, which received an unqualified opinion. SELF's complete, audited financial statements can be found on our website [www.SELF.org](http://www.SELF.org).

# STATEMENT OF ACTIVITIES

For the Year Ended December 31, 2013

(With Summarized Financial Information for the Year Ended December 31, 2012)

	UNRESTRICTED	TEMPORARILY RESTRICTED	2013 TOTAL	2012 TOTAL
<b>REVENUE AND SUPPORT</b>				
Grants and donations	\$ 806,233	\$ 628,661	\$ 1,434,894	\$ 2,289,996
Contracts	526,409	-	526,409	303,367
In-kind revenue	147,379	-	147,379	168,740
Investment income	1,184	-	1,184	1,762
Net assets released from restrictions:				
Satisfaction of program restrictions	1,199,241	(1,199,241)	-	-
<b>TOTAL REVENUE AND SUPPORT</b>	<b>2,680,446</b>	<b>(570,580)</b>	<b>2,109,866</b>	<b>2,763,865</b>
<b>EXPENSES</b>				
Program services:				
Caribbean and South America	1,035,443	-	1,035,443	1,673,623
Africa	782,446	-	782,446	478,687
Communications	188,366	-	188,366	241,701
Other programs	323,790	-	323,790	506,854
<b>Total Program Services</b>	<b>2,330,045</b>	<b>-</b>	<b>2,330,045</b>	<b>2,900,865</b>
Supporting services:				
Management and general	242,836	-	242,836	338,720
Fundraising	144,682	-	144,682	150,773
<b>Total Supporting Services</b>	<b>387,518</b>	<b>-</b>	<b>387,518</b>	<b>489,493</b>
<b>TOTAL EXPENSES</b>	<b>2,717,563</b>	<b>-</b>	<b>2,717,563</b>	<b>3,390,358</b>
<b>CHANGE IN NET ASSETS</b>	<b>(37,117)</b>	<b>(570,580)</b>	<b>(607,697)</b>	<b>(626,493)</b>
<b>NET ASSETS, BEGINNING OF YEAR</b>	<b>315,460</b>	<b>1,905,297</b>	<b>2,220,757</b>	<b>2,847,250</b>
<b>NET ASSETS, END OF YEAR</b>	<b>\$ 278,343</b>	<b>\$ 1,334,717</b>	<b>\$ 1,613,060</b>	<b>\$ 2,220,757</b>

Because SELF's projects extend over multiple years and funds raised in one year may be spent in another, revenue (or expense) may not provide a sufficient indicator of any one year's financial performance if viewed alone.

# ARRAY OF LIFE™

## PARTNERS

SELF's Array of Life™ program matches corporate donations of solar equipment and funds with our projects in the field to provide solar electricity to the 1.2 billion people living in energy poverty around the world.

SELF invites companies to become a program partner by donating PV modules, batteries, inverters, charge controllers or any balance-of-system component used in our system installations. Financial support is also welcome. Our partners through 2013 include:

### PLATINUM

Alstom Foundation  
Google.org  
NRG Energy, Inc.

Outback Power Technologies  
SolarWorld

### GOLD

Cermet Materials, Inc.  
Chadbourne & Parke LLP Foundation  
Dow Corning Corporation  
East Penn Manufacturing  
Eopply Solar Energy  
General Cable  
Good Energies Foundation

SMA  
Solar Liberty Foundation  
Standard Solar  
Sunpower Foundation  
Trina Solar  
Trojan Battery  
Yingli Solar

### SILVER

AEE Solar  
Applied Materials Foundation  
Copper Alliance  
Hemlock Semiconductor

Johnson & Johnson  
SOL  
Sunsense Solar  
350 Media

### BRONZE

Community Energy Inc.  
Creative Energies  
Mr. Long Arm  
Omni Instruments

Solmetric  
Sunset Lighting Services  
WattPlot  
Wind Water and Energy Conservation

# ORGANIZATION

## BOARD OF DIRECTORS

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PepsiCo, Inc.

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President Emeritus & Co-founder  
Presidio World College

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Claudalex Lauture  
Senior Technician, Haiti

Darren Anderson  
Project Manager

Robert A. Freling  
Executive Director

Steve McCarney  
Project Manager

Jean-Baptiste Certain  
Project Manager

Jeff Korcan  
Design Engineer & Project Manager

Adrien Namur  
Project Manager

Kathy Cesere  
Project Administrative Assistant

Jeff Lahl  
Project Director

Sandra Phillips  
Project Manager

Lisa Esler  
Finance Director

Rick LaRue  
Development Director

## INTERNS & VOLUNTEERS

Leah Carriere

Semhar Gebrekristos

Liv Lehmann

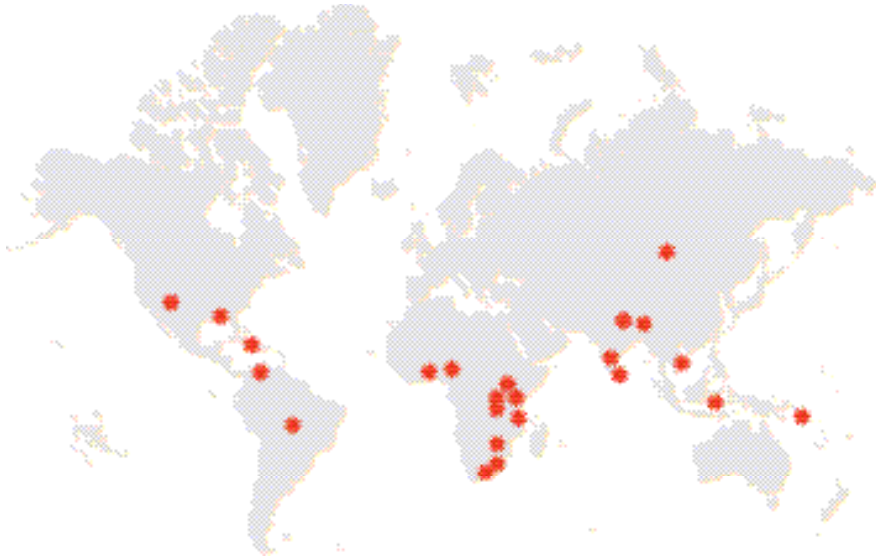
# MISSION & PROJECT LOCATIONS

SELF's mission is to design and implement solar energy solutions to assist those living in energy poverty with their economic, education, health and agricultural development. Since 1990, we have completed projects in more than 20 countries, pioneering unique applications of solar power for drip irrigation in Benin, health care in Haiti, telemedicine in the Amazon rainforest, online learning in South Africa, and microenterprise development in Nigeria.

ENERGY IS A HUMAN RIGHT™

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## PROJECT LOCATIONS



Benin  
Bhutan  
Brazil  
Burundi  
China  
Colombia

Haiti  
India  
Indonesia  
Kenya  
Lesotho  
Navajo Nation

Nepal  
Nigeria  
Rwanda  
Solomon Islands  
South Africa  
Sri Lanka

Tanzania  
Uganda  
United States  
Vietnam  
Zimbabwe

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# FACES of SELF





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