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



powering facility 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.



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

ENERGY IS A HUMAN RIGHTTM

SELF believes that energy is a human right and that access to it is essential to achieving the Millennium Development Goals (MDGs). The Whole Village Development Model projects in this report highlight the MDGs they are helping to accomplish.



FROM OUR EXECUTIVE DIRECTOR



Dear Friends,

For more than two decades, SELF has been delivering solar power to people living in some of the most remote parts of the world. At first, we focused on using solar energy in homes to power lights, radios, televisions, and small appliances. But we knew we could do more. So, over the years we devised innovative uses of solar power to maximize the impacts it can deliver. Everything we've learned up to now has culminated in the creation of our Whole Village Development Model, designed to improve people's health, education, economic development, and food and water security.

Through this model, we are transforming lives. Many adults for the first time have access to quality health care services, clean drinking water, and sustainable sources of food. And the children born into the communities where we work can now look forward to a lifetime of decent health care, clean water, full-time schooling, food on the table, and other opportunities their parents may have never dreamed about.



The Whole Village model in Benin is taking shape. Building upon the success of the three existing Solar Market Gardens in Kalalé, we will be installing eight more, along with solar systems to power six schools, two health clinics and a microenterprise center.

Our work in Haiti also continues. This year, 100 streetlights were installed in two transition camps and solar systems were completed for three additional health centers operated by Partners In Health. And in partnership with NRG Energy, Inc., we are in the process of implementing our Whole Village model in the central plateau region of Boucan Carré, where a fish farm, solar market garden, microenterprise center, and twenty-one schools will soon be powered by clean energy from the sun.

SELF's role in sustainable development has evolved from having a singular focus to taking a holistic approach. We believe our Whole Village Development Model can be replicated around the world to scale-up the use of solar energy to help communities lift themselves out of poverty and secure their future. Such a transformation would not be possible without our supporters, and for that, we are deeply grateful.

Warm regards,



Robert A. Freling Executive Director



Each garden produces two tons of produce per month, including okra, amaranth, lettuce, moringa, eggplant, cucumbers, carrots and corn. Of this, approximately 20 percent is kept for home consumption and the rest is sold at market, earning an extra \$7.50 per week for each woman farmer, according to a twoyear study conducted by Stanford University's Program on Food Security and the Environment

department and published in 2010 in the *Proceedings of the National Academy of Sciences*. This increase in income levels has helped to pay for other economic development initiatives, school fees and medical treatment.

Because of the success of the gardens, the communities of Kalalé expressed a desire to improve their healthcare system, schools and economic development opportunities. SELF began working hand-in-hand with community planners to create eight new SMGs to serve the villages of Basso, Kida, Peonga, Kourel, Derrassi, Angara, Gbessak, and the Village of Kalalé, and install solar systems to power six schools, two health clinics and new sources of drinking water.

This year, the eight SMGs were designed and the equipment for them was ordered; each site was cleared and prepared; and seven new water wells were drilled. Work also began on the

solar electrification of the six schools and two clinics in the villages of Bessassi and Dunkassa. In each location, one secondary and two primary schools will be electrified by solar to light classrooms and power computers to enable distance learning. And the health clinic in each village will be solarized to provide electricity to refrigerate vaccines, power diagnostic equipment, and light examination and patient rooms.



Madame Ganigui Guera is the president of the Women's Farming Collective in the village of Dunkassa, one of two villages in the Kalalé district in northern Benin where SELF designed and installed three of its Solar Market Gardens[™] (SMGs). The innovative solar-powered drip irrigation systems have been operating for five years to help overcome the region's six-month dry season by



pumping water from an underground aquifer to irrigate fruit and vegetable crops.

1



Madame Guera meets U.N. Secretary General Ban Ki-moon.

BENIN

This year, Madame Guera ventured out of her homeland for the very first time to provide personal testimony about the positive impacts the SMGs have had on the lives of those living in Kalalé. She spoke in Olso at the "Energy for all: Financing access for the poor" conference, convened by the Norwegian government and the International Energy Agency (IEA). Never having seen an airport before, she made the trip alone, successfully navigating the Brussels airport to make a connecting flight to Oslo.

At the conference, she addressed a room full of international development experts, offering them a first-hand account of the transformative power of solar energy: "Before, we carried gourds on our heads to fetch water from the river, to get water by hand...Now we have a reservoir to water our garden. Before, we watered mornings and evenings, but now we water only one hour and it's all done, even if it's one single person watering. Solar energy saved us."



N 2010, THE UNDER-FIVE MORTALITY RATE IN RURAL AREAS OF HAITI WAS 114 PER 1,000 LIVE BIRTHS, AND 124 PER ,000 FOR THE POOREST 20 PERCENT OF THE POPULATION.

In late 2012, we will be installing new systems at the hospitals in Verettes and Petite Riviere, which will complete our Rebuilding Haiti initiative. In total, we will have installed over 140 kW of solar power at eight health centers in an effort to improve the health of thousands of Haitians by providing stable sources of electricity to power operating rooms, diagnostic equipment, vaccine refrigerators, computers and other communications systems.

The benefits of solar energy at these health facilities will be felt for years to come. Babies can be delivered in a safer environment, children can be vaccinated from birth, treatments for diseases can be properly administered, and emergency care can be provided around the clock. Solar power is helping to save lives while demonstrating a new model of sustainable health care in the developing world.

THAT SAME, YEAR 10 PERCENT OF CHILDREN UNDER 5 YEARS OLD DIED OF PNEUMONIA, 7 PERCENT DIED OF DIARRHEA, AND 7 PERCENT DIED FROM PREMATURITY.



Photo © Nadia Too

All data is from the World Health Organization, and tatistics are the most current available.

January 12, 2011 marked the one-year anniversary of the devastating earthquake in Haiti. Work on our postearthquake *Rebuilding Haiti* initiative with Partners In Health (PIH) continued this year, installing solar systems at two hospitals and one health clinic.



ACCORDING TO THE WORLD HEALTH ORGANIZATION (WHO), IN 2010 THE NEONATAL MORTALITY RATE (DEATH RATE DURING THE FIRST 28 DAYS OF LIFE) IN HAITI WAS 27 PER 1,000 LIVE BIRTHS, AND THE INFANT MORTALITY RATE (DURING THE FIRST YEAR OF LIFE) WAS 70 PER 1,000 LIVE BIRTHS.*



A 16.5 kW solar electric array installed at the women's health clinic in Lascahobas is helping doctors and nurses perform deliveries and caesarean sections, provide pre- and postnatal care, screen and treat HIV, and vaccinate children by providing around-the-clock electricity. And at each of the hospitals in Thomonde and La Colline, solar-diesel hybrid systems were installed to ensure that a stable supply of electricity was provided to help deliver care to patients. At almost 30 kW each, these systems are nearly three times the size of any previous installation completed by SELF.

Photo © Nadia Todres

CONTINUED



IN 2006, 19 PERCENT OF HAITI'S CHILDREN UNDER 5 YEARS OLD AND 15 PERCENT OF ITS WOMEN WERE MALNOURISHED AND UNDERWEIGHT. To build upon the benefits of solarized health care, we have committed to expanding our Whole Village Development Model to improve food security, education and spur economic development.

This year we continued working with NRG Energy, Inc. to fulfill its commitment to the Clinton Global Initiative to implement solar systems in Haiti to power a Solar Market Garden[™] (SMG), a fish farm, 21 schools and a microenterprise center in Boucan Carré, a commune located in the Central Plateau region of Haiti. In January, the Clinton Bush Haiti Fund announced a grant in support of this initiative.

To prepare for the installations of these projects slated for December of this year, the SMG's site was secured

and a source of water was identified. Groundwater testing was performed while the drip irrigation system was designed, and all of the equipment for the project was ordered, shipped and stored in Port-au-Prince.

The Lashto Fish Farm was selected to receive a solar power system capable



of providing around the clock power to aerate fish tanks designed to produce close to 100,000 fish annually. We completed the photovoltaic (PV) systems design, and as the equipment was ordered and shipped, we began preparing for its installation by starting on the electrical work and completing the system control room.

IN 2008, 57 PERCENT OF HAITI'S POPULATION LIVED IN FOOD INSECURITY, FALLING BELOW THE MINIMUM LEVEL OF FOOD CONSUMPTION NEEDED TO SUSTAIN AN AVERAGE AMOUNT OF DAILY ENERGY.



IN 2006, 35 PERCENT OF WOMEN IN HAITI HAD NO EDUCATION WHATSOEVER

Schools not only serve as places of education for Haiti's children, but many also double as community centers where people can gather to socialize, take adult literacy classes or learn a craft. Of the 62 schools for which we conducted preliminary assessments, 21 were selected to receive solar systems right away. Systems were then designed and equipment was sourced, and the first school to receive a solar system — the Domond "Bon Berger" School — is to be completed February 2012, with the remaining installations slated for 2012.



The development of microenterprise centers are key to Haiti's recovery, as they incubate small businesses that offer goods and services that are important to the maintenance and growth of the communities in which they're located. To encourage and support entrepreneurs and small business owners, SELF worked with community leaders to identify and assess potential site locations, and to assist with the initial survey of potential tenants. To provide solar power to the center that will be built, we completed the design of a system that will provide power for small electronics, refrigerators, phone charging stations, and a small theatre.

Many of the tent camps in Haiti still lack electricity, so after the sun goes down many of them are completely dark, particularly the streets and pathways that wind through them. With funding from



the Inter-American Development Bank, we worked with the Government of Haiti and Green Energy Solutions, a Portau-Prince company, to install 68 solar powered streetlights in the tent camp of Caradeux and 32 solar streetlights in the Pétionville Club camp run by Sean Penn's group, J/P HRO. Before they were installed the crime rate was high and included numerous sexual assaults. As soon as the lights were turned on, reports of violence dramatically diminished, as the lights are helping to increase the levels of peace and security at night.



Rwanda: Ihangane Phase II

SELF completed Phase II of its project with The Ihangane Project (TIP), a nonprofit focused on improving health care in Rwandan communities, to support medical personnel in their efforts to extend care to the 20,000 residents of the Gakenke District in the Northern Province of Rwanda. Solar systems were installed at the Rukura Health Center and at three health posts to provide reliable electricity for diagnostic equipment, lighting and computer systems.



SUSTAINING our SYSTEMS



Burundi: In 2009, SELF installed a solar system to provide 90 percent of the electricity used at a small hospital in Kigutu, operated by Village Health Works, that serves 60,000 people. Earlier this year, components of the system were burned out due to a lightning strike. Almost immediately, SELF assessed the damage, installed a new inverter, and upgraded several components. The system was restored to full capacity.

Kenya: We continued to work with Free The Children this year through a series of site visits and consultations. SELF provided post-installation monitoring and trouble-shooting services, as well as training for personnel. We also supervised the hiring of a local company we had worked with previously, Center for Alternative Technologies (CAT), to provide maintenance to the systems we installed at the Kisaruni Girls Secondary School and nearby Baraka Health Center.

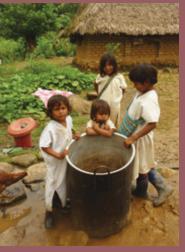
Lesotho: SELF continued to provide operations and troubleshooting guidance for the solar systems that were installed in 2008 and 2010 at the seven clinics run by Partners In Health (PIH) in the remote mountainous region of Lesotho. The systems provide reliable power for satellite communications, electronic record-keeping systems and diagnostic equipment.



COLOMBIA: Expanding Whole Village Development

In July 2011, the Solar Electric Light Fund (SELF), with support from Acción Social (a governmental agency in Colombia) and Microsoft, conducted a week long site assessment to determine the feasibility of deploying solar electric systems for the indigenous Arhuaco, Kogi and Wiwa communities in the Sierra Nevada mountains of northern Colombia.





The project, a part of the *Cordon Ambiental y Tradicional de la Sierra Nevada de Santa Marta* initiative led by Acción Social, is intended to power the health and educational facilities in the villages, along with community lighting systems at select locations.

SELF's assessment confirmed that installing solar power systems at all of the sites is technically feasible, and that adequate and acceptable space exists for the location of the PV arrays and battery structures. It's anticipated

that the systems will power new energy-efficient laptop computers and lighting in the schools, and high-efficiency fans, lighting and vaccine refrigerator/freezers at the health facilities, including dental equipment at one clinic.

SELF is working closely with our partners to initiate this project, which will serve to expand our presence in South America and further the reach of our Whole Village Development Model.



FINANCIAL HIGHLIGHTS

SELF Revenue in FY11





- Corporations (5%)
- Individuals (16%)
- Government & Multilateral Institutions (30%)
- Foundations (49%)

- Fundraising (5%)General & Administrative (7%)
- Program (88%)
- Financially, 2011 was a year of continued strength, with revenue exceeding \$3.5 million for the second year in a row, more than double 2009 revenue. Changes of note included increased funding from multilateral and government institutions, while SELF continued to receive significant support from foundations and individuals.

With this growth in revenue, SELF was able to increase its program activity to more than \$2.7 million, a 44 percent increase over 2010.* SELF continued to maintain its operational efficiency, with program costs representing 88% of expenses.

The financial results depicted on the next page are derived from the SELF audited December 31, 2011 consolidated financial statements, which received an unqualified opinion. SELF's complete, audited financial statements can be obtained by calling (202) 234-7265.

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

STATEMENT OF ACTIVITIES

For the Year Ended December 31, 2011

(With Summarized Financial Information for the Year Ended December 31, 2010)

	UNRESTRICTED	TEMPORARILY RESTRICTED	2011 TOTAL	2010 TOTAL
VENUE				
Grants and donations	\$ 673,146	\$ 1,809,118	\$2,482,264	\$2,916,035
Contracts	\$ 675,140	ф 1,009,110	¢ 2,482,204 815,131	173,286
In-kind revenue	247,033		247,033	471,094
Investment income	1.447		1,447	1,344
Other income	967	-	967	1,011
Net assets released from restriction			00,	
Satisfaction of program restriction	ons 1,226,064	\$(1,226,064)	-	
TOTAL REVENUE	2,963,788	583,054	3,546,842	3,561,759
PENSES				
PENSES Program services	2 733 898		2 733 898	1 904 850
Program services	2,733,898 208.065	-	2,733,898 208.065	/ /
Program services Management and general	208,065	- -	208,065	1,904,850 161,554 170,850
Program services		- - -		161,554
Program services Management and general	208,065	- - -	208,065	/ /
Trogram services Management and general Fundraising TOTAL EXPENSES	208,065 155,838	- - -	208,065 155,838 3,097,801	161,554 170,850
Anagement and general Fundraising TOTAL EXPENSES	208,065 155,838 3,097,801 (134,013)	- - - 583,054	208,065 155,838 3,097,801 449,041	161,554 170,850 2,237,254 1,324,505
Trogram services Management and general Fundraising TOTAL EXPENSES	208,065 155,838 3,097,801	- - - - 583,054 1,786,750	208,065 155,838 3,097,801	161,554 170,850 2,237,25 4

ORGANIZATION

BOARD OF DIRECTORS INTERNS & VOLUNTEERS

MISSION & LOCATIONS

SELF's mission is to design and implement solar energy solutions to assist those living in energy poverty with 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.

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For more information, please scan this QR code with your smartphone.

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