



# Giving Lights and Changing Lives:

Solar Shines in sub-Saharan Africa

Let There Be Light International

## Who We Are and What We Do



Let There Be Light International (LTBLI) fights global climate change and energy poverty through a 3-tiered action plan:

- Donate Solar Lights to vulnerable children, families, and elders in pre-market communities
- Solar-Electrify off-grid Health Clinics in poor areas
- Raise awareness about Global Energy Poverty and its impact on Climate Change and Global Health through:
  - Partnerships
  - Advocacy via Papers, Presentations, and Online Platforms
  - Participation in Global Alliances and Forums

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## Why Energy Poverty?



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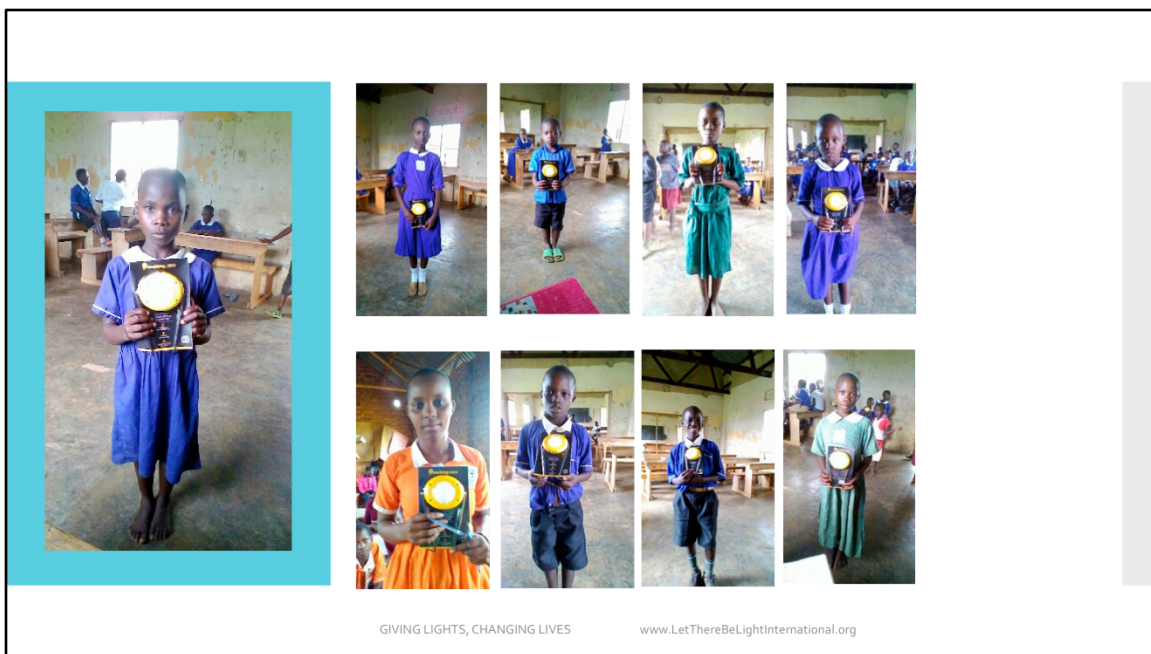
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Here is a slide of solar light recipients in Uganda after a February 2017 distribution thanks to the Rotary Club of Moorestown, NJ.

Historically, there has been too little attention paid to how energy poverty affects vulnerable populations, but that is changing. And, globally, changing fast. Background on energy poverty:

In 2012 the UN, World Bank, and many others committed to addressing climate change and other global challenges through the creation the Sustainable Development Goals, which came into effect in 2015. This set of 17 concrete goals with measurable indicators is now the primary blueprint for international development and aid. For the first time, Sustainable energy and energy access was included as a key component of all sustainable development and anti-poverty programming. It is, in fact, SDG 7. And the SDGs are also reflected in many of your own global goals.

LTBLI's mission and values align closely with Rotary International's areas of focus. For instance, LTBLI Fights Diseases by targeting those living with HIV/AIDS, survivors of cerebral malaria, and other chronic diseases. We strive to Save Mothers and Children by reducing the risk of house fires, burns and indoor air pollution and through the provision of solar lighting systems to remote off-grid health clinics providing maternal services. Furthermore, the provision of a solar light to families with a disabled child or

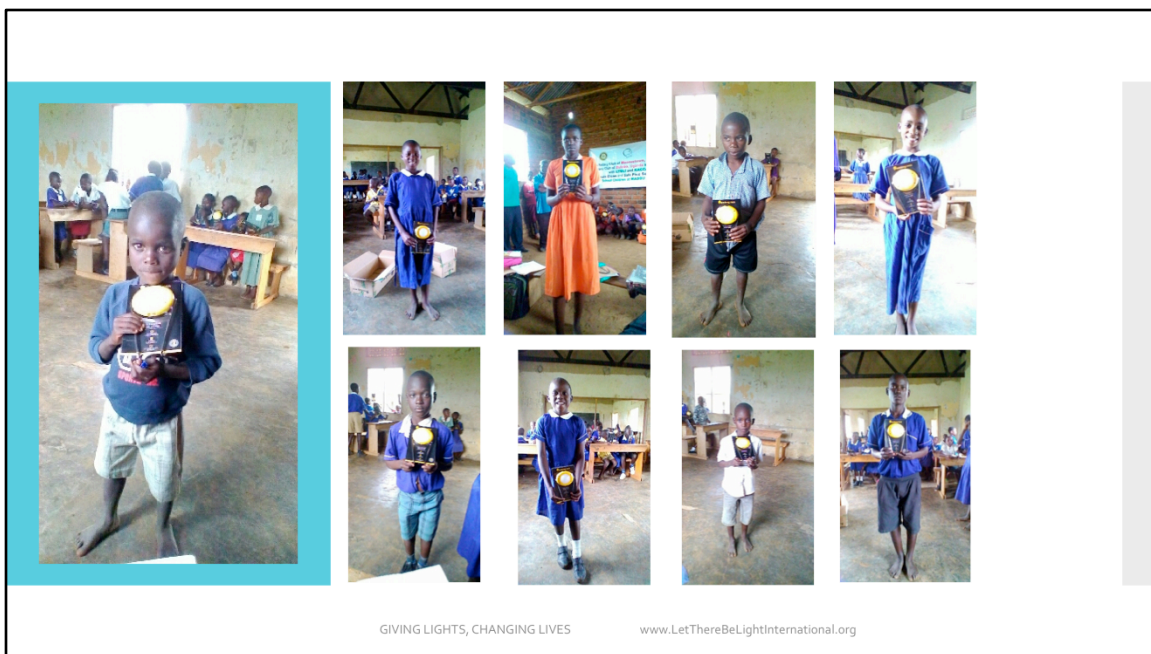


Here are some of the beneficiaries of the Moorestown Solar Uganda grant – this is Jane (she’s 11), and Safrah, Alfred, Christine, Leticia, Rebecca, Pretty, Enoka, and Melda

All beneficiaries live in off-grid communities, use those kerosene tins for lighting, and live below the global poverty line. All beneficiaries also are in one or more of our M.O.D.E.S. – Mother, Orphan, Disabled, Elderly, Student

I’d like to read you a few comments from Derrick Luwaga, our primary distribution partner and a local rotarian in Uganda: “KACCAD and LTBLI have partnered with Rotary Club of Buloba since 2017 in a collaborative effort to enhance and promote LTBLI’s Solar Health Outreach project in Uganda. Rotary Club of Buloba has supported this project by contributing to the distribution of solar health posters to reach the farthest communities in Wakiso. By creating awareness we can save many more lives and when we work together we can better serve humanity and protect our environment.”





Here's Julius, Christine, Sirat, Steven, Regina, Junior, Pauline, Bosco, and Happy

The average age of the Solar Light Recipient (from the Rotary grant) is 12 years. The average age of all recipients is higher, as we target many elders and new mothers also. At least 60% of all recipients and all field officers we hire are women, which is important for gender parity and social inclusion.

The average household size for this grant was 6.9 people. (Approximately 825 people impacted). Our overall household size is 5.4 people across all demographics.

36% of Recipients said that a household member had been burned at in the past year by their old kerosene lighting, and

67% of Recipients said that the soot from kerosene bothers their eyes and/or breathing and 98% worry about the risk of fire when using kerosene.

### Our Impact:

6,115 Solar Lights

350 Outreach  
Sessions

19 Health Clinics

340,000 Lives  
Impacted



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In the past 3 1/2 years.

This is a drop in the bucket for the 1.1 billion people living without energy access but there is a growing chorus of good news - Under Mr. Modi, for instance, India has committed by 2018 to full electrification, and Rwanda also through hydro, solar, wind.

And lots and lots of people working in the market-based ecosystem. That's where we come in. Almost always when you hear about energy access especially when in relation to the poor, the words energy and entrepreneurship are linked. LTBLI does not believe that an elder or a child or a caregiver is necessarily in a position to be an entrepreneur. But we actively and explicitly compliment market-based groups. But we also believe in a robust safety net. And the problem is big enough so that an all-hands-on-deck approach is the right way to go. As part of our commitment to the UN's Everywomaneverychild campaign, we are committed to solar-electrifying at least 7 more clinics before the end of 2018 and distributing another 2,500 solar lights, reaching an additional 100,000 people.

- \*Education
- \*Outreach
- \*Access
- \*Prevention



Improved  
Health and  
Safety

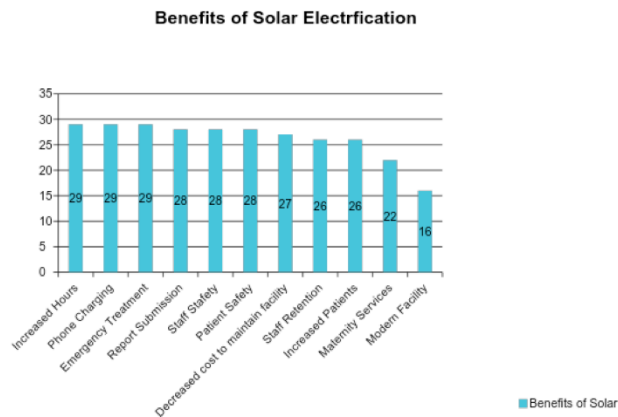


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Here is a picture of George Mike, our lead Education and Outreach Coordinator in Uganda at an off-grid health center in Uganda. We have 2 part-time outreach workers in Uganda who meet with women's groups at community health centers, community centers, churches, and schools to explain the benefits of safe solar lighting and to connect them with vetted, reputable vendors. You can see here that GeorgeMike is using one of our hand-held tablet computers to collect demographic data about attendees.

## Follow-up Survey of 9 Off-Grid Health Clinics



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Last May, we conducted a follow-up survey in Uganda of the first 9 rural health centers that we solar-electrified to determine how technology and tools are impacting health access and delivery in off-grid health centers.

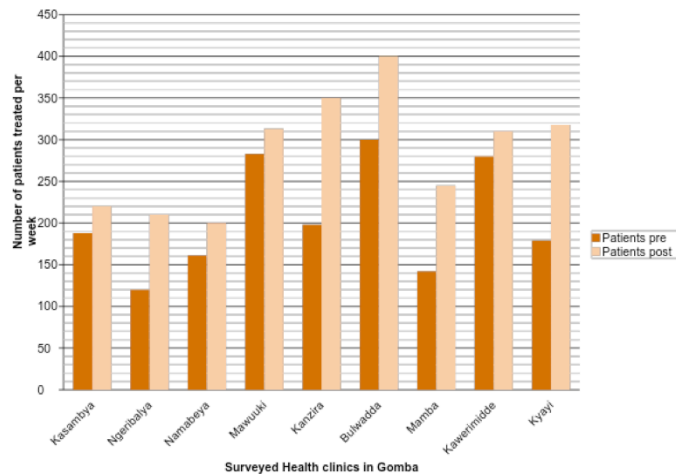
The clinics all lack on-grid electricity and serve a total population of 128,000 people. We surveyed 29 health workers at the 9 sites.

As you can see, the health workers responded that the primary benefits of working in solar electrified clinics were the increased hours of operation, the ability to charge mobile phones, and the increased number of emergencies they could handle during the night. According to the staff and district health ministry, the ability to charge mobile phones improved communication between health workers and the district health authorities - as well as the on-time medical reporting from the clinics.

Increased patient and staff safety also were reported to be valuable outputs as well as an increase in staff retention.

The decreased cost of maintaining the health facilities was another major benefit, because the funds received by clinics to cover monthly expenses was not seen as adequate to cover all costs. We continue to monitor all targeted health clinics and to provide ongoing support to their staff.

## Increase in Patients treated pre/post



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All 9 clinics increased their hours operation and their days/week of operation, increasing the number of patients treated by an average of 37%, and we found that the number of children treated weekly increased 48% after electrification. At clinics providing maternity services, attended births increased nearly 200%. Notably, the increase in attended births was cited by surveyed community members and healthcare staff as an important marker of increased community healthcare access. The week we are solar-electrifying 2 more health clinics.

## Education Outreach and the Seeding of Solar Markets



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Given the large volume of people accessing clinic services and the limited staffing available to conduct outreach education, we recognized an opportunity to complement programming through the design and dissemination of a solar health flier.

Here you can see a volunteer putting one up by a clinic in Uganda. This is also supported by the local rotary.

1,000 fliers currently are being distributed for display at health clinics, schools and community centers. The posters include visual and written information about how solar lights work and their safety relative to kerosene and whom to contact to find out more information.

In addition to our poster outreach, we fund and conduct biweekly Solar Awareness sessions at health clinics. Over the past 18 months 1,325 community members have attended these Solar Awareness sessions, where they are free to ask questions, handle a variety of solar lights, and even purchase lights from vendors who are invited to attend the sessions.



## Challenges and Program Modifications

- \*Remote locations
- \*Connecting with staff
- \*Increased staff training
- \*Coordination with local health and education ministries
- \*Solar Certification Project



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Challenges to programming include the distances to the remote locations of the health centers and the unfamiliarity of some staff with the new technological equipment. To address this, we designed and disseminated appropriate-use posters that are now displayed next to the systems for the continuing education of the health clinic staff.

The District Health Officer (with whom we work closely) reports that she has created a battery-replacement fund. She also is working with the regional health ministry to increase the stock of drugs available to each clinic in order to anticipate and curb shortages in available medications when health clinics increase their hours and patient loads.

Our new Solar Certification Project is going to provide free training to young women about solar and energy poverty. Upon completion of the program, attendees will receive a Certificate of Solar Education.

A simple light -  
Many impacts



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This is a photo of a young boy with special needs, who was amazed by the bright cool light of his family's new light  
LTBLI actively promotes that aid-based solar light distributions are undervalued as a preliminary step toward achieving environmental and economic justice in impoverished off-grid areas around the world. It really is important because Solar Lights really are Changing Lives! Thank You!