

LIGHTING AFRICA

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IN FOCUS

LIGHTING AFRICA NEWS

Off-grid lighting quality assurance edges closer towards international framework

The Lighting Global Quality Assurance framework is going global in response to a growing need for a stable, harmonized approach to identify good quality off-grid lighting products.

Lighting Global is currently working with the U.S. Department of Energy to institutionalize its test methodologies and quality metrics through the International Electrotechnical Commission (IEC), a key stepping stone towards an internationally harmonized quality assurance.

“The main goal of working with the IEC is for the international harmonization of test methods for off-grid lighting products across multiple countries.

Harmonization brings benefits to manufacturers and buyers alike, as it means that results from testing under the method would be valid across all programs, countries, and regions that adopt the IEC test methods in full,” says Arne Jacobson, leader of Lighting Global’s quality assurance.

A harmonized quality assurance framework will eliminate the need to test products multiple times for different markets, reducing quality assurance costs incurred by companies. In the long run, these cost savings should in turn benefit buyers through lower pricing for quality assured products, he says.

The test methods submitted through the IEC are based on the Lighting Global Quality Test Method (LG-QTM) version 3.0. This test method, which was originally developed by the Fraunhofer Institute for Solar Energy Systems, was revised earlier this year following extensive stakeholder input.

A draft technical specification document with the test methods was submitted to the IEC through Joint Working Group 1 of Technical Committee 82, and it was accepted as a committee draft in May. It was released to national committees associated with the technical committee in June for review.

Comments from national committees are due in September, and it is possible that the harmonized test methods and quality metrics will be approved and published before the end of the year.

Training technicians: Completing the market responsiveness circle

Lighting Africa has begun training first-line technicians to provide after-sales service and maintenance to solar lighting products retailing in Kenya and Ghana.

The program will train more than 100 technicians to be based in 10 of Kenya’s major towns, and in six of Ghana’s key cities.

The technicians are being trained on the basics of modular solar lighting kits, the common reported problems and how to fix them, in a bid to assure consumers that solar lanterns are serviceable once acquired.

“This initiative is a direct response to consumer demands for after-sales service of solar lighting products, and first-aid technical backup to manufacturers and distributors to avoid sending back perfectly good products that have not been used according to instructions,” says Nana Asamoah-Manu, Lighting Africa’s Kenya Country Manager.

Asamoah-Manu says about 90 percent of product complaints and returns from consumers had been found to arise due to very simple operational failures on the part of consumers.

The most common failures arise as a result of not charging lantern batteries as required such that they fully discharge, necessitating kick-start charging using other energy sources.

Another common problem arises from trying to charge solar lanterns in places that do not receive direct sunlight such that batteries are not fully charged and do not therefore provide the advertised duration and intensity of lighting.

Wrong connections and assembly of the various components of solar lighting kits were also found to be a reason for complaints on product performance among customers.

“It has become clear that first aid action could well resolve between 50 and 60 percent of customer complaints, and improves the overall value of the product,” says Asamoah-Manu.

Lighting Africa is working with local technicians who have experience in repairing electronic devices such as mobile phones, television and radio sets, and showing them how to open up, diagnose and repair modern lighting kits. They also learn how to operate them.

The program is also in talks with other stakeholders in the industry with technician training programs in a bid to evolve national training curricula.



Technicians undergo practical training on how to repair off-grid lighting products in the Kenyan market © Lighting Africa

Nokero International partners with ChildFund to power Liberia's passion for learning

After decades of internal strife, Liberia's children and youth represent tremendous untapped potential for the country's development.

The majority of them have spent more time engaged in war than in school.

For most, however, the sun sets every evening on their eagerness to learn.

Ninety seven percent of Liberia's population does not have access to electricity; the impact on children's learning is considerable.

In the dark of night, children study outside in parking lots and roadside gas stations, clustered together under any public areas that are lit.

Others read by the light of a flickering kerosene flame, breathing in smoke and toxic fumes.

To address this lighting challenge, solar lantern manufacturer, Nokero International, entered into partnership with the NGO ChildFund International earlier this year in April.

Nokero develops affordable solar lighting products with the aim of replacing the hazardous kerosene lamps that are commonly used in millions of homes across Africa.

Through a campaign dubbed the 'Global Light to Learn Challenge', Nokero provides solar reading lamps to be distributed by ChildFund to schools.

ChildFund is on its part running an online fundraising challenge to raise money to buy and distribute more solar lanterns to Liberian children.

Since April, the NGO has secured resources to buy and distribute 500 lamps to schools.

Amelia, a smart, caring, energetic 12-year-old girl lives in Klay Town, without a reliable source of energy. She is one of the beneficiaries of the Global Light to Learn Challenge.



12-year old Amelia demonstrates how a Nokero solar lantern works lighting up a map ©Nokero International

Story continued on page 3

Lighting up rural Ghana's nights with the sun

Mr Joseph Danquah is usually a very busy man being the only carpenter in his village, Nimforkrom, near Sunyani, the capital of Ghana's Brong Ahafo Region.

If daylight were extended to 16 hours per day, his family would be able to get so much more done.

He often has to defer work he could have completed in the evenings to the following day because of nightfall.

"My wife is a baker. She wakes up around 4am to get her dough ready for baking. She sells her bread at night with tea using a bobo (*kerosene lamp*). We all try to do as much as we can when there is daylight," the father of five girls says.

In the evenings, his children study using a kerosene lantern while he and his wife use candles because "we are not as careless as the kids."

His village has no electricity. The only light this village knows is sunlight. But once the sun sets, life comes to a near standstill.

"Even our little midwifery has no lights! We manage only by prayers," he states. "All my children for instance were born during the day, but my brother's son was born at night and it was scary! The fumes from the lanterns that we inhaled! And not to mention the poor lighting the midwife was forced to use! It was not easy."

All he wishes for is light for use at night! He complains of the health implications of kerosene fumes for his children; and of the high cost of buying kerosene, candles and matchboxes, and the time lost in not being able to do any work in the evening.

When a Lighting Africa team visited him in June and provided his homestead with some solar lanterns, he could not believe that the sun could light up his home in the evenings and at night.

The Lighting Africa team visited Nimforkrom village as part of a 15-week consumer education campaign that kicked off in April, and has since visited 225 villages.

The consumer education campaign has run road shows in 150 rural markets and 75 community forums to demonstrate the types of solar lanterns that are available in Ghana, and how they work.

A follow-up visit to Mr Danquah's household a week later found a transformed homestead abuzz with life; Children were playing in the well-lit compound, while three old men sat chatting over an evening drink with solar lantern to themselves.

"Solar has changed me, and my family's life! Now we have a life too. My children study with solar lanterns and they do not have to inhale kerosene fumes any more. They no longer strain their eyes," he said. "Now we have been brought out of darkness to the light."

He had also since acquired a mobile phone which he charged using his solar lantern, and was able to listen to news on the phone radio.

"As for me, all I can say is thank you," says his wife Comfort Atse. "Solar has made business good. Now I sell late into the night and I make more money. No more bobo and kerosene oh! Only Awiah light!"



The Danquah family outside their home with their solar lighting kit, which has lit up their nights and changed their lives ©Lighting Africa

Nokero, ChildFund partner to fire up learning in Liberia

"I like Nokero for my study. It can save us from burning our houses, and I can use Nokero to walk in the dark. Nokero helps me to pass my lessons in school. I want all my friends to use Nokero to study too," Amelia says.

The partnership has enabled children to study safely at home after dark; schools give children the lamps to go and study at home each night, and return them the following day.

In the daytime, the lanterns are used to teach about renewable energy and the sun's energy.

This initiative has not only improved learning but also child safety. Often when kerosene proved too expensive for families, children would be allowed to go to public lit areas to do their homework, returning home very late, exposed to the risk of attack.

Nokero and ChildFund are further engaging Liberia's unemployed and underemployed youth in programs that improve livelihoods, and promote adoption of renewable energy solutions.

Through the Renewable Energy for Youth Entrepreneurs program, ChildFund is equipping the youth with business and entrepreneurial skills. Thereafter, the youth are set up in solar lighting businesses.

ToughStuff and bednet manufacturer partner to reach more people in crises

ToughStuff, the solar kit provider, has partnered with global mosquito net manufacturer and distributor, Bestnet A/S, in order to reach more people with solar products during humanitarian crises.



Toughstuff's solar lighting emergency that comprises a lamp, a solar panel, radio and mobile phone connectors © Toughstuff

Bestnet is now selling ToughStuff's solar kits alongside mosquito nets, increasing displaced persons 'and refugees' access to clean lighting.

Access to lighting and energy are recognised as basic human needs in humanitarian emergencies.

ToughStuff's Chief Operating Officer Hayden Hamlet says: "Bestnet's excellent global network in the aid and relief market and the synergies between our products made them the obvious partner, and demonstrates the potential for two companies to cooperate for the greater good".

During crises, the affected typically rely on kerosene lamps for lighting, but these are hazardous, especially in crowded temporary camps where fires can spread rapidly.

Bestnet is selling the Toughstuff's solar kits under the brand name Sunlife in the relief market.

Kenya: Consumers want more from off-grid lighting products



A distributor explains his solar lantern to prospective customers during a recent consultation with NGOs and CBOs in Nairobi © Lighting Africa

Rural communities without electricity in Kenya are increasingly using modern lighting products to light up their homes and businesses due to enhanced consumer awareness on the advantages of clean lighting, and increased availability of affordable, quality-assured modern lighting products.

Lighting Africa market reports have documented tremendous growth, an average of 75 - 85% per year, in the Kenyan market for modern off-grid lighting products over the last two years.

Consumer surveys undertaken this year are revealing distinctly evolving consumer preferences;

now more rural families would like to light up their entire homes, not just one room at a time, using solar home lighting systems.

"Consumers seemed to have a preference towards lanterns which can be used to power multiple rooms. However, their higher prices are still a concern," says a May 2012 consumer report.

The latest survey found that most consumers see hire purchase as the best option for acquiring these multi-room home lighting systems, and expressed a desire for hire purchase arrangements with dealers and retailers in their respective home areas.

Currently, Kenya has more than 20 quality-tested solar lighting products retailing country-wide. Most of these are versatile portable single solar lamps that easily double up as torches, and can be used in a number of ways such as desk or study lamps, or they can be hung on ceilings or walls to light entire rooms. Of these, only four are multiple-room lighting products.

The survey also found that consumers prefer lighting products that can provide more than just lighting; solar lighting kits that can also charge mobile phones are rated highly by consumers.

The survey also captured consumer preference for lanterns with "strong, bright" lights, and their concerns on effectiveness of product warranties.

"Some consumers reported that the one year warranty is not working. When consumers experience challenges with the solar lanterns, they are never assisted as stated in the warranty," says the report.

The Lighting Africa program has also been at the heart of developing and rolling out quality standards and quality assurance for this new lighting sector, rebuilding confidence in the off-grid lighting market that had been eroded by an early influx of sub-standard solar lanterns.

Lighting initiatives applauded for increasing access to clean energy

Lighting Africa and a number of its associates were recognized at the Rio +20 Summit for their contributions and commitments towards the UN target of sustainable energy for all by 2030.

Lighting Africa, which has been instrumental in bringing to birth the modern off-grid lighting industry in Africa, was singled out for already having made it possible for some 2.5 million people without electricity in Africa to reduce their dependence on kerosene by embracing solar energy for their lighting needs.

Sustainable Energy for All is an initiative of the United Nations, launched in September 2011, to transform the world's energy systems so that everyone in the world will by 2030 have access to modern and sustainable energy for their various needs.

About 1.6 billion people in the world have no access to electricity, an estimated 600m of whom are in Africa.

Lighting Africa is working to spawn a vibrant, competitive market for clean, high quality lighting products in Africa that will by 2030 reach 250 million people without electricity.

A number of the program's Associate companies involved in the manufacture and distribution of modern off-grid lighting products in Africa were also recognized for their efforts to improve access to clean energy.



A woman prepares supper, her kitchen lit by one of the modern solar lanterns © Lighting Africa

STORIES FROM THE FIELD

Toughstuff and Bestnet forge humanitarian partnership to increase energy access

Trine Angeline Sig, Bestnet's Managing Director says:

"Sunlife products will provide much-needed relief to those affected, helping rebuild their lives from devastation and to return to a sense of normalcy by providing lighting, connectivity and information."

The Sunlife product range includes a solar panel and solar-powered LED lamp, radio connectors to replace batteries, and connectors for mobile phone charging.

After distributing solar lighting kits as part of a bigger emergency household starter pack in Haiti, Concern Worldwide in their activity report concluded that: '

'...in a package that included a number of essential household and hygiene items; one tarp, two blankets, a kitchen set, hygiene kit, a jerry can, some rope and condoms, the solar kit was clearly perceived as the most valuable item.'

British children donate solar lanterns to Nairobi slum school

Pupils of Gatoto primary school, in the Mukuru kwa Reuben slum in Nairobi, received solar study lanterns from pupils of FeltonFleet School, south of London.

The lanterns provide better lighting for study for the Gatoto children whose homes do not have electricity.

Many of them study using kerosene lamps, and others cannot study at all in the evening as a result of the high cost of kerosene in Kenya.

"We are very grateful for the solar lanterns. The first batch will be distributed to class seven and class eight students as they prepare for the national exams", said the school manager Betty Nyagoha.

The FeltonFleet pupils raised funds and purchased solar lanterns from d.light, an international consumer company that is an Associate of the Lighting Africa program.

Gatoto Community Primary School was founded by the Mukuru kwa Reuben community in January 1994 and registered as a community school with Kenya's Ministry of Cultural and Social Services in 1997.

The school strives to provide high quality, value based education to about 1,000 disadvantaged children in the Mukuru slum.



One of the candidate class pupils happy with the donation of solar lamps that could greatly improve their preparation for the national primary level examinations © d.light Designs

Clean lighting initiatives feted for contribution to 2030 energy goals

Lighting Africa's associate companies contributing to the SE4All goal include:-

- d.light, which has committed to expand the production and distribution of its solar lamps to 30 million people in more than 40 countries.
- Nokero International which is partnering with Navajo tribal leaders and a local non-profit organization to provide universal access to solar energy in the Navajo Nation.
- Nuru Energy which has pledged to avail its portable, rechargeable LED lights to about 1.8 million rural households in East Africa by 2016 through an expanded network of 10,000 village entrepreneurs.
- Philips which is committed to improving the energy efficiency of all its products by 50% by 2015 (compared to 2009), and to develop more off-grid, solar-LED lighting solutions.
- Schneider Electric which has committed to enable one million (1m) low-income off-grid households access energy by the end of 2014 through development of lighting and other clean energy solutions.
- Schneider will also provide technical training to some 30,000 young people at the 'Base of the Pyramid' in various aspects of energy management, as well as will educate more people in its products' markets on energy saving in a bid to boost energy efficiency.
- SolarAid which has embraced an audacious new organizational mission of eradicating the kerosene lamp from Africa by the end of the decade.

In related news, electricity companies, under the umbrella Global Sustainable Electricity Partnership, have pledged to provide 50,000 solar lanterns to homes not connected to electricity as part of their commitment to the UN's Sustainable Energy for All initiative.

The Electricity Partnership will work with the Global BrightLight Foundation to avail solar lanterns using a 'pay-as-you-go' model. The Global BrightLight Foundation is working to raise the living standards of poor communities without access to electricity, and currently has pilot projects in Rwanda and Argentina.

ANNOUNCEMENTS

Call for impacts studies on off-grid picoPV

The Lighting Africa program and the Africa Renewable Energy Access (AFREA) program have initiated joint work to assemble a larger body of robust evidence on the impacts of off-grid PV, with an initial focus on PicoPV.

This will include impacts on education, health, household expenditures, productivity, the local and global environment, as well as specific social and psychological impacts.

The initial phase of this study seeks to identify past and ongoing impact studies on PicoPV, evolve a pragmatic set of field survey instruments suited to fill some of the most urgent knowledge gaps, and identify stakeholders who are currently embarking on new PicoPV impact evaluations who might be able to assist us fill information gaps.

Please send relevant reports or information on any existing, ongoing or planned impact evaluation studies related to off-grid PV to research@lightingafrica.org.

Ashden 2013 Awards: Call for applications

Ashden, the sustainable energy organization, is calling for applications for its 2013 Awards. They are looking for initiatives that are transforming lives and reducing carbon emissions in developing countries by improving and increasing access to renewable energy to the poor, transforming lives and reducing carbon emissions.

Since 2001, the Awards have highlighted innovative energy initiatives across the world, and have nurtured more than 140 sustainable energy enterprises helping them scale up. Ashden is looking for initiatives that are:-

- Increasing energy access to homes or businesses.
- Improving health and education outcomes through sustainable energy.
- Providing innovative financial mechanisms for sustainable energy products and services.
- Developing products that provide renewable energy for lighting, cooking, etc.
- Using renewable energy or energy efficiency for agricultural purposes.

For more information on the awards, and to apply, visit www.ashden.org. The deadline for submission of applications is 23 October, 2012.

Barefoot: Winner of 2012 International Ashden Award

Barefoot Power, an Associate of the Lighting Africa program, was one of four international winners of the 2012 International Gold Ashden Award. The Ashden Award recognizes innovative green energy initiatives in the UK and in developing countries.

Barefoot was recognized for its market-led approach to increasing access to clean lighting in Africa among off-grid or 'un-electrified' communities.

"With its astonishing sales figures, Barefoot is a fantastic example of a market-led solution to bringing renewable electricity to Africa's rural poor. Through its network of micro-entrepreneurs it is overcoming the barriers of how to access remote communities and how to make solar power affordable," said the judging panel.

Rick Hooper, the CEO of Barefoot Power said: "We are honored to receive the prestigious Ashden Award. More than 1.5 billion people lack access to energy across the globe and with this award we will be in a position to help eliminate energy poverty."

"As a social enterprise we have reached two million people in vulnerable communities in more than 20 countries with solar lighting and phone charging solutions. The Award will help us scale our business and make affordable, safe, healthy energy solutions available to all communities at the base of the pyramid, and help us attain our goal of reaching 10 million people by 2015."

Its products range from single desk lamps to complete home lighting kits for use in homes, clinics and schools. Barefoot has sold about 350,000 lanterns and lighting kits to the rural poor in over 20 countries in Africa, Asia Pacific, India and the Americas.

ToughStuff wins World Business Award

ToughStuff was one of ten companies that won this year's World Business and Development Award for their efforts to improve living standards in some of the world's most disadvantaged communities.

ToughStuff, which won in the small and medium-sized enterprise category of the awards, has deployed a business model that has enabled it reach 1.5 million people with affordable solar energy.

"To achieve this, the company has had to look further than standard commercial distribution channels and also works closely with local partners on the ground, such as NGOs and other civil society organizations, to build sustainable micro-entrepreneur programmes," says Toughstuff.

The awards, presented at the Rio +20 summit, reward businesses that expand access to goods and services for the low-income through sustainable, commercially-viable business models.

Better solar lighting boosts safety in rural India - study

Solar lantern manufacturer Greenlight Planet has published the findings of a social impact assessment of its lamp, the Sun King, on rural communities in India.

The study established that more than anything else, better lighting was the primary reason why most of the surveyed households (73%) bought the solar lantern.

"Better Lighting is considered as a very important reason for buying the lantern. Savings and mobile charging were rated as important, while health and safety ranked lower," a report of the findings says.

Almost all (94%) of the Sun King owners interviewed reported feeling safer since acquiring the portable solar lantern, which easily doubles as a flashlight. They said better lighting had made it possible for them to safely engage in a variety of outdoor social activities in the evenings, and reduced accidents at home.

"The house being less smoky, the main door is closed at night which also prevents animals from entering the house. The study, undertaken by Planète d'Entrepreneurs, covered 40 villages across India.

Five new solar lighting products pass quality standards

In the past two months, five new products have passed the Lighting Africa Minimum Quality Standards, and been issued Standardized Specifications Sheets (SSS).

The successful products are:

- Lemnis Solar's Pharox Solar Kit 1.3
- Beta Lights' two solar lighting kits – betta one and betta two
- d.light Design's two solar lanterns, S1 and S10

These products now push the number of quality-assured modern off-grid lighting products available across Africa to 35, affording consumers more variety, choice and functionality.

SolarAid taps into youthful creativity to advance its mission

Solar Aid, distributor of solar lanterns, has benefitted from a plethora of innovative ideas on how to increase access to solar lighting products in Africa.

SolarAid, which is the energy partner of the Hult Global Case challenge, is benefiting from the winning ideas of students of the New York University (NYU), Abu Dhabi.

NYU Abu Dhabi beat four other student

teams with innovative ideas on how to increase access to solar lighting in Africa, emerging overall winner of this year's Hult Global Case Challenge.

The Hult Global Case Challenge is the world's largest crowd sourcing platform for social good which seeks to change the way young people think about social issues. It is a call to action for the world's brightest university and college students to tackle the world's most pressing social challenges.

The competition has a million dollars in prize money which is divided equally between winners of each of the three challenge categories - education, energy and housing.

This means that NYU Abu Dhabi's winnings go to the competition's energy partner, SolarAid, an Associate of the Lighting Africa program.

SolarAid is using the prize money to help scale up its social enterprise, Sunny-Money, and to work to with the winners and other finalists to implement their winning ideas.

The NYU Abu Dhabi team developed a trust-based model which sought to build consumer trust in solar lights by ensuring that local service and repair centers exist where solar lights are sold.

The team addressed financial barriers that deter people from buying solar lamps with pay-as-you-go-technology.

The competition, now in its third year, attracted entries from 350 business schools from Boston, Dubai, London, San Francisco and Shanghai.

The judging panelists included the Nobel laureate Mohammad Yunus, while the awards were presented by former US President Bill Clinton in April.

The Challenge Founder Ahmad Ashkar is quoted in an article on Forbes.com as saying:

"In the future, every business decision should look at what impact it is having at the bottom of the pyramid. You don't call it 'telecom entrepreneurship' or 'fast food' entrepreneurship.' Soon 'social entrepreneurship' will just be 'entrepreneurship.' "



The winning NYU Abu Dhabi team receives their trophy in New York
© John Keane/Solar Aid

Off-grid lighting industry association becomes operational

The Global Off-Grid Lighting Association is now operational. The association inaugurated its first Board of Directors in June, with Dr. Harald Schützeichel of SunTransfer elected President, and Wolfgang Gregor, the Secretary General.

The inauguration of the Association’s Board signals a move by the industry to take leadership and proactively shape the young industry’s future by engaging with other stakeholders such as governments and development partners to secure an enabling business environment.

“It’s time to open up the off-grid market worldwide and to eliminate market barriers for the benefit of all the people who still do not have access to clean, sustainable and affordable light,” the President and Secretary General told the inaugural Board meeting in June.

Other members of the new Board are the Sierra Leonean Energy for Opportunity, USA’s d.light Design, India’s Greenlight Planet, the Dutch company Philips, and France’s TOTAL.

The board’s incorporation is timely as recently published studies such as IFC’s ‘From Gap to Opportunity’ highlight the massive untapped potential and viability of the nascent energy-for-the-poor sector. IFC values the global market for clean lighting and cooking at USD37 billion.

The industry association has already won the support of the US Department of Energy which sees the Association’s mission as being well aligned to the Global Lighting and Energy Access Partnership (Global LEAP), and the UN Sustainable Energy for All initiative.

“GOGLA and its members are well positioned to make important contributions to the effort to increase energy access and reduce global poverty in years to come,” said Rick Duke the US Deputy Assistant Secretary for Climate Policy in a letter to the Association.

The off-grid lighting association brings together companies and organizations that are providing innovative yet affordable lighting solutions to communities without electricity. To learn how to become involved contact them through info@gogla.org or visit www.gogla.org.

Kerosene-free Kenya: Rio +20 agreement to increase access to clean energy

The Government of Kenya announced an ambitious plan to phase out the use of kerosene for lighting and cooking, and replace it with clean energy products such as solar lighting kits, at the just-concluded Rio+20 conference.



A Kenyan woman at her store, which is lit by the open-wick kerosene lamp; A new government initiative is expected to make clean energy products widely available in Kenya© Katia Theriault

The plan is part of an agreement between Kenya and Norway that will see a framework policy for renewable energy and energy efficiency evolved to widespread adoption of solar lighting products and improved cook stoves, displacing kerosene.

Norway also signed agreements with Ethiopia and Liberia to increase access to sustainable energy, and reduce green house gas emissions.

The country’s Environment Minister Mr Ali Makwere is quoted on the statement saying Kenya spends more than over USD600 million importing Kerosene annually.

Kerosene is the primary source of lighting fuel for 68 percent of Kenya’s population, especially in rural areas, according to the latest census data. Solar energy currently provides for less than two percent of Kenya’s energy needs.

Kenya is one of the countries where the joint IFC-World Bank Lighting Africa program is being implemented, and has as a result recorded tremendous growth in its market for solar lanterns, averaging at 75 - 85% per year, over the last two years.

The market currently has more than 20 affordable, quality-assured solar lighting products ideal for lighting homes and small businesses in areas without electricity, the government could tap into to quickly improve rural energy access.

New index to gauge solar energy’s development impacts

The German International Solar Energy Institute for Rural Development has developed an index that will enable organizations to qualitatively evaluate the impact of solar projects.

The Institute argues conventional methods of measuring the impact of solar projects typically focus on only one aspect, e.g. number of lamps sold, leaving out the socio-economic impacts.

“Existing measuring methods have one advantage: They are simple,” says ISEI in an online article on its website. “They also have a decisive disadvantage: they are too simple”.

Lighting Africa publications now in French!!

More and more Lighting Africa publications are now available in French on our website.

These include the program brochure, the annual report, market trend research reports, and the newsletter.

New versions of quality assurance tests

A new version—July 2012 - of the Lighting Africa quality test method document is now available online.

Also available is the March 2012 version of the Lighting Africa Minimum Quality Standards and Performance Targets that was the result of extensive stakeholder consultations.

Technical guidance for lantern batteries

Lighting Africa released a couple of technical notes on safe manufacture, storage and shipping of batteries that are commonly used in modern off-grid lighting products.

One provides advice on effective packaging, storage and shipment of Sealed Lead Acid batteries to avoid discharge and subsequent damage of new batteries before the lighting products have been put to use.

The second addresses safety issues surrounding the design and manufacture of products with lithium-ion battery technologies.

This technical brief compares several existing and emerging lithium ion technologies, and provides an overview of the safety issues involved in designing products using this battery technology.

From Gap to Opportunity, IFC Report

A new IFC report states that the energy access gap no longer needs be seen as an humongous development challenge, but rather as a billion dollar opportunity.

The report sizes up the energy-for-the-poor sector as a USD37 billion, and growing, market opportunity.

“Energy access is not just a development gap, but also a real market opportunity for the private sector,” the IFC report says. “Around the world, entrepreneurs are already seizing the opportunity to profitably supply appropriate affordable goods and services to the poor.”

More than 20 companies had by April entered Africa’s off-grid lighting market, and had by April, sold more than 500,000 solar lanterns across Africa.

Africa’s energy gap is projected to keep widening as population growth rates outpaces electrification rates.

A Lighting Africa baseline study published in 2010 had estimated that Africa’s ‘un electrified’ would grow from about 590 million people in 2009 to an estimated 630 million by 2015.

The report serves as an important resource for raising awareness on the vast opportunities presented by the challenge of improving access to clean, modern sources of energy to some 1.4 billion people worldwide who are not connected to electricity.

Investments in solar energy outpace other renewables, says report

The UN Environment Programme (UNEP) and Bloomberg New Energy Finance have released a report tracking investments in renewable energy in 2011.

According to the report, the total investment in solar power leapt 52% to \$147 billion in 2011, reaching a figure almost twice as high as investments in wind energy.

“Last year was not the first time that solar has led wind in terms of dollars committed, but it was the first time that the gap in favor of solar was anything apart from narrow,” say the report authors.

The report was commissioned by UNEP’s Division of Technology, Industry and Economic in cooperation with the Frankfurt School, a UNEP Collaborating Centre for Climate and Sustainable Energy Finance, and produced in collaboration with the Bloomberg New Energy Finance.

The report highlights one of the key developments in the renewable energy sector last year as being the falling prices of technology; photovoltaic module prices fell by close to 50 percent.

Germany and Italy made the most of these price reductions, the two countries accounting for most of the recorded growth in solar investment.

The report finds that global investment in renewable energy grew by 17% to USD 257 billion, 35 percent of which constituted investments made in developing economies.

“In 2011, investments in renewable energy have almost reached the level of investments in power generation based on fossil fuels. New business opportunities are arising and new jobs are being created. The contribution to GDP is considerable,” says Udo Steffens, President and CEO of the Frankfurt School of Finance and Management.

The report also highlights a US\$850 million bond issue for a PV project owned by Warren Buffett’s MidAmerican Holdings pointing to the potential of green bonds as an instrument for financing renewable power projects.

This report was formerly known as the Global Trends in Sustainable Energy Investment, and was published by the UNEP Sustainable Energy Finance Initiative.

Global status of renewable energy

The multi-stakeholder Renewable Energy Policy Network for the 21st Century (REN21) released its 2012 Renewables Global Status Report (GSR) last month.

The report documents solar PV as the fastest growing renewable energy sub-sector from 2007 through to 2011, with its operating capacity increasing by an average of 58% annually.

For the first time since the report’s debut in 2005, the report this year provides an overview of developments and trends of rural energy, including initiatives such as Lighting Africa.

“Although there is still a long way to go to provide energy access for all, today more people than ever before derive energy from renewables as capacity continues to grow, prices continue to fall, and shares of global energy from renewables continue to increase, says Mohamed El-Ashry, the REN21 Chair, in the report’s Foreword.

The report says renewable energy grew ‘strongly’, supplying about 17% of global energy consumed in 2011.

Europe led on renewable energy installations, and, for the fourth year running, renewables accounted for more than half of all newly installed electricity capacity in Europe — more than 71% of total additions.

The report identifies the key driver for renewables’ growth as being energy policies that take cognizance of the sector’s potential to create jobs.

Globally, it is estimated 5 million people work directly or indirectly in renewable energy industries.

The Renewables Global Status Report envisages serving as a benchmark for measuring global progress in the deployment of renewable energy.



The **Lighting Africa Newsletter** is a briefing on the latest developments in the Lighting Africa program and the off-grid lighting market. It is provided to all organizations and individuals in the Lighting Africa network. Help us help you tell your story by sending us your articles!

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Lighting Africa, a joint IFC and World Bank program, seeks to accelerate the development of commercial off-grid lighting markets in Sub-Saharan Africa as part of the World Bank Group’s wider efforts to improve access to energy. Lighting Africa is helping mobilize the private sector to build sustainable markets to provide 2.5 million people in Africa with safe, affordable, and modern off-grid lighting by 2012. The longer-term goal is to eliminate market barriers for the private sector to reach 250 million people in Africa without electricity, and using fuel based lighting, by 2030. Improved lighting provides significant socio-economic, health and environmental benefits such as new income generation opportunities for small businesses. Lighting Africa is a key element of the global Solar and LED Energy Access (SLED) program, an initiative of the Clean Energy Ministerial.

For more information, please visit <http://www.lightingafrica.org>

Lighting Africa is implemented in partnership with: The Africa Renewable Energy and Access Grants Program (AFREA) • The Asia Sustainable and Alternative Energy Program (ASTAE) • The Energy Sector Management Assistance Program (ESMAP) • The Global Environment Facility (GEF) • The Good Energies Inc. • Italy • Luxembourg • The Netherlands • Norway • The Public-Private Infrastructure Advisory Facility (PPIAF) • The Renewable Energy and Energy Efficiency Partnership (REEEP) • The United States.

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