



## Meet the Winners of the 2019 Solar E-Waste Challenge

### **d.light**

*Country of implementation: Kenya*



[d.light](#) is a leading global solar energy company, providing distributed solar energy solutions for households and small businesses throughout the global south. This year, they will be celebrating the achievement of transforming 100 million lives since its founding in 2007.

As a Global LEAP Solar E-Waste Challenge winner, d.light has developed a pilot dubbed PICO-I aimed at incentivizing customers to dispose of End of Life (EoL) and Out of Warranty (OOW) solar products at d.light outlets. Through a targeted consumer awareness campaign, the project will encourage customers to buy new solar products at a discounted rate, when the old products cannot be repaired, thus preventing a return to the use of traditional energy sources. During the pilot, d.light will collect solar products regardless of manufacturer, and analyze data to understand the types and volumes of solar e-waste that have been kept in customers' homes, as well as their response to the incentive mechanism.

### **Enviroserve Rwanda**

*Countries of implementation: Rwanda, Burundi, DRC, Uganda*



[Enviroserve Rwanda Green Park](#) is an e-waste recycling company registered in Rwanda since 2017. Enviroserve Rwanda is a subsidiary of Enviroserve Dubai, an ISO and OSHA certified company. Enviroserve Rwanda operates a modern and environmentally friendly e-waste dismantling and recycling facility located in Rwanda and over the past two years, Enviroserve Rwanda has signed disposal agreements with large solar companies across East Africa to collect and recycle solar products at their end-of-life. To date, Enviroserve Rwanda has collected approximately 300 tons of end of life solar products.

As a Global LEAP Solar E-Waste Challenge winner, Enviroserve Rwanda will establish solar e-waste collection points in each of Rwanda's thirty districts and neighboring country border points. Collection sites will be strategically located to access rural and hard-to-reach customers. Enviroserve Rwanda will also use grant funds to work with innovation partner, Carnegie Mellon University - Africa, to develop a tracking system to optimize logistics and streamline communication with users. Their goal is to cover 100% of Rwanda, including border points, and to collect 70% of solar e-waste from Rwanda and the region.

### **Fenix International**

*Country of implementation: Uganda*



[Fenix International](#) is a pay-as-you-go solar company whose mission is to transform customers' quality of life through disruptive innovation in energy and financial services. Fenix has sold over 500,000 solar home systems, bringing clean, reliable power for lights, phones, radios, TVs and more to over 2 million people. Fenix is a company of ENGIE, one of the world's largest energy companies and a leader in the move to renewable, decentralised and digital energy. Already the market leader in Uganda and Zambia, Fenix has expanded into new markets - Benin, Côte d'Ivoire, Nigeria, Mozambique - and continues to work towards providing more affordable, inclusive, and income-generating products. Together, Fenix and ENGIE are making universal access to modern energy a reality.

As a Global LEAP Awards Solar E-Waste Challenge winner, Fenix plans to pilot a program to utilize their last-mile presence and extend existing recycling processes to cover non-Fenix component-based solar systems. Fenix will use their Service Centers as trade-in locations for customers interested in recycling their worn-out generic systems. Furthermore, Fenix seeks to engage last-mile service agents to identify high-risk products like lead acid batteries and return them to logistics hubs.

Over the 12-month implementation period, Fenix will launch and refine the program in Uganda and use the learnings to pilot a similar program in Zambia. They anticipate collecting at least 15,000 kilos of discarded generic solar components. Fenix looks forward to informing the wider off-grid industry of the potential models to utilize existing logistics pathways to help reduce environmental impact of generic solar products.

## **Hinckley Recycling**

*Country of implementation: Nigeria*



[Hinckley Group](#) is headquartered in Nigeria, with operations across West Africa. In 2017, the company registered Hinckley Recycling as the first electronic waste recycler in Nigeria. Hinckley Recycling provides solutions for electronic end-of-life in order to prevent environmental pollution and human harm caused by hazardous e-waste.

As a Global LEAP Solar E-Waste Challenge winner, Hinckley Recycling will work with Lumos Nigeria, Taisen and Carnegie Mellon University - Africa. Their project will involve coordination with formal and informal collectors to ensure that solar batteries are recycled safely. Hinckley plans to conduct research on informal collectors' role in accessing e-waste in remote areas of Nigeria that would otherwise be diverted to dumpsites or informal recyclers. With the help of IT specialists, Hinckley will evaluate the efficacy of incentives and improved logistics to access remote solar e-waste sources.

The grant funding will also contribute to equipment procurement and capacity building for the solar e-waste recycling facility. Hinckley aims to develop a process to reuse battery cells by manufacturing new products from off-grid solar batteries. The challenge funds will support innovation and local capacity building that will provide valuable insights into resource upscaling and knowledge building for the off-grid solar sector.

## **Solibrium Solar**

*Country of implementation: Kenya*



[Solibrium Solar](#) is a certified B-Corp based in Western Kenya that aims to bring affordable solar power to Kenyan communities. Solibrium works not only as a distributor of solar home systems and an installer of customized solar systems for homes and institutions, but also aims to offer a holistic and complete sales, distribution, service and repair ecosystem to rural solar users.

As a Global LEAP Solar E-Waste Challenge winner, Solibrium will collaborate with Swiss Foundation myclimate, and with technical support from Omnivoltaic, to address the emerging issue of solar e-waste primarily through SHS life-extension activities. With funding from the grant, Solibrium aims to create the enabling conditions for a viable take-back / buy-back business model through a combination of research on existing use of SHS and management of solar e-waste, the development of a platform for managing and tracking solar e-waste, and the deployment of various battery management technologies and techniques aimed at increasing SHS battery lifespan. The long-term aim is to scale their e-waste model across Kenya based on lessons learnt from the project and coupled with the synergistic involvement of local regulatory authorities, industry partners and the informal sector.

### **SunnyMoney**

*Country of implementation: Zambia*



[SunnyMoney](#) is a social enterprise solar distributor with operations in Zambia and Malawi and has sold over 2 million lights across sub-Saharan Africa. A quarter of a million of these lights and systems have been sold in Zambia.

As a Global LEAP Solar E-Waste Challenge winner, SunnyMoney will develop an innovative take-back scheme in the Choma District of Zambia. The project will incentivize rural customers to return non-functioning solar products to local schools and agents.

With the grant funding, SunnyMoney will also focus on repair. The company aims to develop open source training manuals and videos that would be made available on a customized web platform and through an App. The materials would be made accessible to local repair shops and schools to increase understanding of solar e-waste and how to repair products. The SunnyMoney e-waste App will also act as an online marketplace to enable the exchange of and access to key spares, components needed for repair and refurbishment, and act as a portal for refurbished products to be sold.

## **WeTu**

*Country of implementation: Kenya*



[WeTu](#) owns and operates six solar powered hubs offering products for solar lighting in Western Kenya. WeTu aims to provide solutions in the areas of water, power and mobility to improve living standards in rural Kenya.

As a Global LEAP Solar E-Waste Challenge winner, the company will pilot a project to establish seven battery collection points in WeTu hubs along the coast of Lake Victoria in Kenya. WeTu plans to engage nine Beach Management Units, comprising of 4,700 fishermen, who use an estimated 2,500 batteries every day to power fishing lanterns. The project will focus take-back and recycling of li-ion batteries because there are currently no e-waste management opportunities for li-ion products in the area.

## **WEEE Centre**

*Country of implementation: Kenya*



[WEEE Centre](#) is one of the leading and largest National Environmental Management Authority (NEMA) licensed facility in Kenya for e-waste processing and offers e-waste collection, transportation and recycling services to the general public, businesses, learning institutions, government and NGOs.

As a Global LEAP Solar E-Waste Challenge Winner, WEEE Centre will focus on collection, refurbishment and recycling of off grid solar products. The Centre will conduct a nationwide awareness campaign to increase public knowledge on the importance of solar e-waste recycling and existing e-waste collection centres. WEEE Centre will also create strong linkages with large solar companies in the region as the designated facility for disposal. The grant funding will allow WEEE Centre to increase capacity and training for solar e-waste recycling both within and outside the Centre.