**CITE SUSTAINABILITY**

The Sustainability team looks beyond the product itself and on the innovation ecosystem that surrounds it – a complex, interdependent system of factors that influences product use and the degree to which it spreads throughout society. Understanding this ecosystem and how it functions lies at the heart of the Sustainability team’s research efforts, which includes evaluations, deep dive studies, and modeling and simulations.

**THE UGANDAN CONTEXT**

Uganda is a rural-dominant country of 35 million in eastern Africa. Most households currently use kerosene lamps for lighting. Uganda has a low electrification rate and a high poverty rate, which means that better and cheaper off-grid energy alternatives are needed, especially for the rural poor. The potential market for non-grid energy solutions such as solar lanterns is as high as 90% of total population, but demand is tempered by cost, and product awareness and availability.

**SOLAR SISTER: A HYBRID PRODUCT DIFFUSION STRATEGY (PDS)**

Solar Sister is a social enterprise founded in 2010 with three goals: empower women through economic opportunity, increase access to clean energy, and turn a profit from solar lantern sales. Solar Sister maintains a network of Solar Sister Entrepreneurs (SSEs) who earn a commission through lantern sales. The model has evolved from 100% micro-consignment to 0% credit micro-franchise. The model hinges primarily on SSEs’ success – namely, their ability to use their social networks to raise awareness and sell solar lanterns. Though many SSEs have been successful, nearly all have faced challenges, including transportation and travel, customer knowledge about lanterns, and complaints about price. The organization has also faced challenges, including balancing social and financial objectives, timely payback and SSE retention.

Despite these challenges, Solar Sister has grown significantly and has been flexible enough to learn from past experiences and implement necessary changes. So far, Solar Sister has recruited over 400 entrepreneurs in Uganda. In 2013, they expanded into Nigeria and Tanzania, and plan to recruit 3,000 new SSEs by 2015.

**SOLAR SISTER GROWTH (LEFT) AND RATIO (RIGHT) METRICS**

Note: 2013 is projected from January-February 2013 data. “Purchases” are lanterns sold to Solar Sister from manufacturers and distributors. “Sales” are lanterns sold and distributed to entrepreneurs from Solar Sister.