

November 2010: Lemelson Foundation and E+Co partner to fund solar power in Tanzania, Africa. Here the PRI Makers Network interviewed Anne Murray, Senior Development Officer, at E+Co to learn more.

PRI MAKERS NETWORK (KM): Tell us more about E+Co and the program to support solar lighting in Tanzania?

Anne Murray, E+Co (AM): E+Co is a nonprofit mission-focused investor in clean energy enterprises in Africa, Asia and Central America. E+Co has been working in Tanzania since 2001, when E+Co provided a loan to Mona Mwanza Electrical and Electronics in the northern region of Mwanza to expand their product line to include solar PV systems.

In late 2006, E+Co and the Lemelson Foundation began discussion on the connections between technology and sustainability. The Foundation recognized that technology needs to be implemented and disseminated in a systemic fashion in order to be deployed on a sustainable basis. E+Co's ability to address gaps along a technology value, or supply chain, led to the development of a targeted expansion program to increase the number of rural retailers of solar PV systems in Tanzania. Today, following a government initiative to build awareness and provide purchase incentives for solar PV systems countrywide, and with the support of the Lemelson Foundation, E+Co manages 13 active and approved investments in solar PV enterprises from its office in the country's capitol, and has provided training and support services to more than 80 local entrepreneurs.

KM: The Lemelson Foundation structured their investment in the solar project by providing a program-related investment in combination with a grant. Can you tell us more about the investment and walk us through how you decided upon that structure?

AM: The Lemelson Foundation program was designed to survive the 'walk away test', i.e., create viable businesses that would continue to grow and succeed once the E+Co/Lemelson engagement ended. The grant support, to be used for a series of workshops, facilitated the early-stage capacity development of entrepreneurs interested to launch a solar PV systems business. These training initiatives not only support the entrepreneur, but also serve to reduce investment risk once the entrepreneur is 'investment ready' and able to take on investment capital.

In 2008, a total of five workshops organized by E+Co were held in five Tanzanian cities – Bukoba, Mwanza, Arusha, Tanga and Dodoma. Each workshop provided an opportunity to identify and assemble PV operators, technicians, retailers and wholesalers, local savings and credit cooperatives (SACCOs) and market facilitators to share knowledge about business opportunity in the Tanzanian solar PV systems sector.

Following the workshops, interested entrepreneurs began working with local E+Co staff to develop solid foundations to a solar PV systems retail and/or distribution enterprise. Upon development of a 'bankable' business plan, the Lemelson Foundation PRI was used to fund the launch and growth of enterprises. Five new solar investments were approved, along with two growth loans, during the term of the Lemelson funding.

KM: Zara Solar, a solar PV systems wholesaler in Mwanza, is one of E+Co's successful portfolio investments in the region. What impact has Zara Solar had on the community?

AM: Zara Solar's Founder and Director, Mohamed Parpia, was part of the family that established Mona Mwanza Electrical and Electronics. Through his work and research, it became clear that the strong demand for solar PV systems was a tremendous business opportunity, and so Zara Solar was established as a wholesaler of solar PV systems, handling sales, installation and maintenance.

Today, Zara Solar is ordering product directly from solar PV manufacturers and international suppliers, thus increasing their profit margin per unit. The enterprise also recently established a warehouse in Tanzania's seaport capital, Dar-es-Salaam, in order to ensure a steady supply of product to customers, and is evaluating an expansion of business into neighboring countries.

Since E+Co's investment in Zara Solar in 2006, the enterprise has sold 33,834 PV systems to both household users (70% of sales) and business/industrial users (30% of sales), resulting in the offset of 1,826 tons of carbon and displacement of over 254,300 liters of kerosene.

Mohamed Parpia has received significant recognition and support for his work, from the Ashden Awards for Sustainable Energy (2007) to the World Bank's Lighting Africa Award (2008) and the Lighting Rural Tanzania competition (2010). He has been generous in sharing his experiences with prospective solar PV entrepreneurs and the success and impact he has had through his work has incentivized others to evaluate and pursue opportunity in the solar PV sector.

KM: What are the lessons learned from this investment for other program-related investors?

AM: Program-related investments can provide much needed capital to clean energy markets. However, as can be seen by the Lemelson Grant/PRI support, investment capital can be most effectively deployed in combination with a grant, which in this case allowed E+Co to provide financial and clean energy training and support. This can be especially impactful at the early stages of growth of an enterprise. The Lemelson grant served not only to raise awareness in Tanzania for the opportunity in clean energy enterprise, but allowed E+Co to begin the early stages of training and knowledge sharing which has led to "investment-ready" entrepreneurs.

The combination of both Grant and Program-Related Investment support recognizes the full continuum of services and capital necessary for success, and allows funders to participate in the full value chain of enterprise development and investment, leading to focused on-the-ground impact.

KM: What can others do to support clean energy entrepreneurs through E+Co?

AM: E+Co, via six locally staffed offices in Africa, Asia and Central America, works directly with entrepreneurs, providing E+Co with a deep understanding of the needs of the market. While much-needed capital is slowly becoming available in these markets to support the launch and growth of clean energy enterprises, many entrepreneurs remain in need of training and support to ensure that their businesses succeed. E+Co welcomes discussion with other funders who are interested to establish similar types of Grant/PRI Funding initiatives in other parts of the world.

E+Co also offers an eight year debt instrument, called the E+Co People + Planet Note, which provides a 0-3% return on investment (minimum of \$100,000). This instrument is used by E+Co to invest in small and growing clean energy enterprises worldwide.