



## Assisting the Private Sector in Providing Energy to the Rural Poor



The Technosol project meets the water pumping and irrigation needs of local farmers.

In Nicaragua, almost 45% of the population lacks access to electricity and it is estimated that more than 75% of the population lives live without electricity.

The scarcity of clean and affordable energy is a result of a complicated set of factors, and there is no silver bullet for rectifying the situation. Most often, the basic cause of the scarcity of energy is simply that the poor and dispersed rural populations do not present a market that is sufficient to attract companies that will invest in electricity generation and distribution.

USAID works to create financing opportunities to assist the rural poor in purchasing energy. These

interventions include micro-financing, training traditional lenders in the agriculture sector to be more open to credit for energy interventions, loan guarantees for lenders and developers, and other activities to encourage investment in rural energy businesses.

To assist the private sector in providing energy services, USAID is supporting the FENERCA (Financing of Renewable Energy Enterprises in Central America) Program, which is run by E+Co, a New Jersey based energy services company.

The FENERCA program has provided assistance to TECNOSOLUCION, S.A. (Tecnosol), a Nicaraguan-based energy company dedicated to the promotion of solar, wind and hydroelectric energy. Tecnosol provides energy access to satisfy the lighting, refrigeration, water pumping and irrigation needs of farmers and landowners in the rural areas of northern and central Nicaragua where there is no access to the main grid.

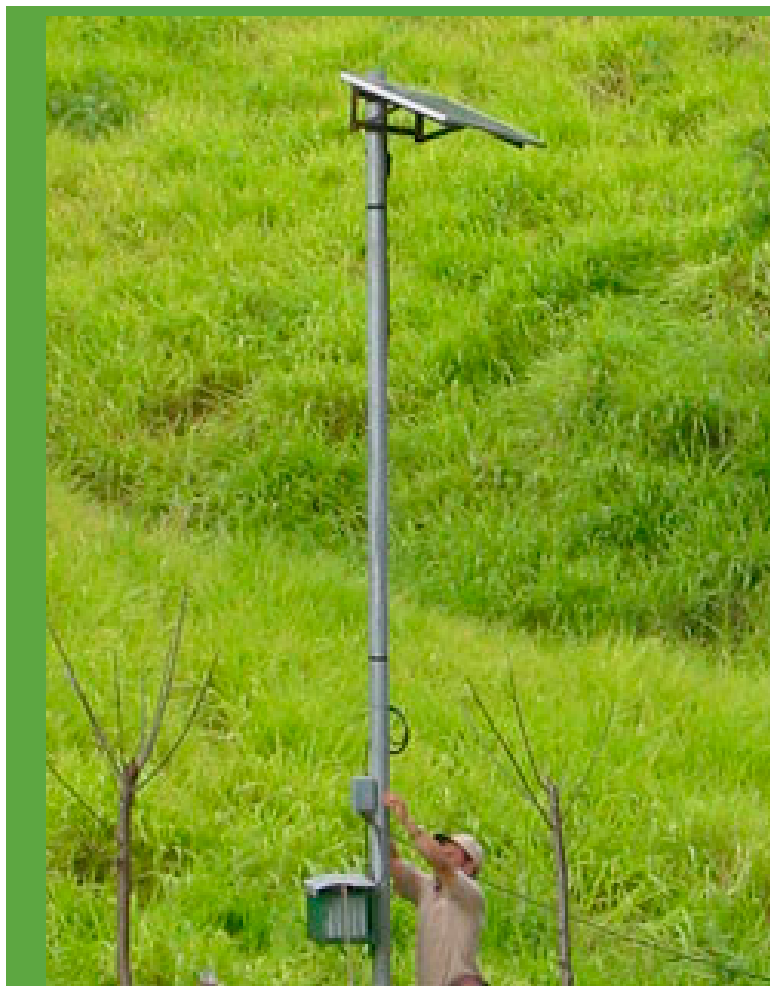
The FENERCA program provided enterprise development services to Tecnosol in an effort to help the company develop and complete its business plan and strengthen its expansion program. Through FENERCA, the company also received technical assistance and funding for a market study that was completed in July 2002 and formed the basis for completion of its business plan and gained access to a US\$100,000 loan from E+Co. The loan was disbursed in March 2003 and facilitated the purchase of additional inventory to begin an expansion model that entails giving short-term credit (3-6 months) to its customers.

With FENERCA's continued assistance, the company has been able to grow despite the slow growth of the Nicaraguan economy in the last few years. Since the receipt of E+Co's loan, Tecnosol has sold and installed 149 solar home systems

(SHS) (31 SHS were sold on credit and 118 in cash); and two refrigeration and water pumping systems were installed and sold on credit. Subsequent visits to Tecnosol's clients clearly demonstrate that all of them have displaced the use of kerosene lamps, candles and the use of diesel. Through the assistance of the FENERCA team, Tecnosol has been able to increase its credit lines by over 50%. According to Tecnosol's financial statement, monthly average sales in 2003 increased 15.46% over 2002, which is a 139% increase over 2001.

Most of the projects implemented by Tecnosol are located in extremely poor regions, where despite the community's efforts to organize themselves to have access to electricity, the high cost has made it impossible for them to achieve this goal.

Due to Tecnosol's experience in rural electrification, in September 2003 it was awarded a bid by the Nicaraguan Government, to install 1,500 SHS in a rural community. Tecnosol's future looks promising, and the FENERCA program is now helping the company identify new growth capital to expand.



Worker installing a solar panel in remote community with no access to the main grid.

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