

Village Ambiental

Solar PV Irrigation

Roberto and Maurilio Lopes were surprised when the loans for the solar PV systems they sold and installed as part of their business, Village Ambiental, were repaid early and within a two-year period. The reason, they discovered, was the increased cash flows generated from access to reliable power for irrigation. From an initial purchase of equipment costing US\$4,000 and an additional US\$2,300 invested in agricultural inputs, the customer produced US\$9,000 worth of crops in the first harvest. With additional income, the customer then purchased other solar equipment for their homes.

Village Ambiental Snapshot

Country: Brazil

Entrepreneur: Roberto and Maurilio Lopes

Energy Service: PV-powered irrigation systems.

REED Services:

- Financial Analysis Assistance
- US\$ 55,000 loan
- Post investment enterprise development services

As other members of the community expressed interest in purchasing similar systems, the brothers knew that success depended on the ability to *finance* the PV systems – an ability, however, that was beyond the scope of the company.

In 2003 E+Co and B-REED worked with Village to help the company design a financial model. Together, they designed a project where B-REED funding is used as working capital for a pilot project to sell eight PV-powered water pumping irrigation systems under credit that will be repaid by its rural customers in 12 monthly installments. Each system irrigates one hectare of corn and one hectare of cassava for each rural farmer. B-REED provided a \$55,000 loan to support the pilot phase with additional funding from the Solar Development Group.



The company is progressing with B-REED extending substantial post investment EDS focused on strengthening the organization's cashflow, assessing lessons learned from the initial pilot to design a sustainable approach, and identifying other business markets and strategies.