

24.5.3 Examples of PV Financing in Rural Areas

The financing of photovoltaics is beginning to occur around the world. The following are some current examples.

Bank Lending: SELCO India (Pty) Ltd, a solar PV installation and service company that has installed over 5000 solar home systems in southern India, has built working relationships with a number of area banks such as Syndicate Bank, and nonbanking finance companies (NBFCs) like Manipal Finance. SELCO has provided cash deposits as partial guarantees to several of the lenders, encouraging them to become involved in PV financing, and has provided interest rate buy-downs in other cases. Loans are typically 80% of the system cost, at 14 to 18% interest, repaid over one to three years. Even such short-term lending has sparked a market in southern India.

Microcredit lending: In Sri Lanka, a microcredit lender named Sarvodaya Economic Enterprise Development Services Limited (SEEDS), has embarked on a successful PV-lending program with its members. SEEDS loans 80% of the cost of the system. Loans are repayable in one to five years. Interest rates are in the mid- to upper-twenties (local borrowing rate plus a spread for SEEDS operation). Repayment is flexible – monthly or seasonal, depending on the income stream of the borrower. The loan recovery rate in SEEDS' program has reached 94%. SEEDS expects to finance as many as 50 000 solar home systems between the years 2001 and 2005. This work in Sri Lanka has built upon and perfected the pioneering work by Grameen Bank in Bangladesh (see Reference [20]).

NGO financing: In Bangladesh, Grameen Shakti, the PV affiliate of the Grameen Bank, is an example of a nongovernment organization that is involved in both the financial and technical aspects of PV dissemination. Grameen Shakti offers three financing options (it charges a “service charge” instead of “interest” because of local custom):

- 85% loan, repaid over a period of three years, having a 12% service charge (interest cost);
- 75% loan, repayable over two years, having an 8% service charge;
- Cash: The buyer receives a 4% discount on the system price by paying cash up front (not taking a loan).

Cooperative financing: In Santa Cruz, Bolivia, Cooperativa Rural de Electrificación (CRE) is a rural electric co-op that began installing PV systems in 1995 for customers who could not be reached by the grid. By 1998, CRE was serving 1300 PV customers, charging a flat monthly electric service fee. CRE owns the PV systems and maintains them.

Fee-for-service model: Several pioneering programs are being implemented using a fee-for-service model – charging a flat monthly fee for the use of a solar home system that is owned and maintained by a service company. Prepayment meters are commonly used on the battery's charge controller, which provides a revenue control mechanism. Users purchase prepayment cards each month at a local shop. In Indonesia, Total Energie, the French PV systems integrator, has completed a fee-for-service trial serving some 5000 customers. In South Africa, Shell-Eskom, a 50/50 joint venture of Shell International and Eskom, the national electric utility in South Africa, has installed 6500 solar home systems and is working toward an initial business trial of 50 000 units when