



## CASE STUDY 13: BANGLADESH – SOLAR HOME PROGRAMME ON CREDIT SALES

<b>Barriers</b>	High initial costs and lack of long term credit
<b>Instrument</b>	Output-based aid
<b>Application</b>	Soft loan to refinance customer loan and subsidy to buy down purchase price
<b>Amount</b>	n/a

### PROJECT BACKGROUND AND OBJECTIVES

The Rural Electrification and Renewable Energy Development (RERED) is a global rural electrification program funded by IDA, which became effective in December 2002. One of the components of the RERED implemented in Bangladesh is the development and implementation of solar home system SHS for rural off grid households. The solar home project is managed and administered by the Bangladesh Infrastructure Development Company (IDCOL) and involves the following activities:

- developing consumer awareness of SHS and their potential for rural lighting
- selection of Participating Organizations (POs) who will be eligible for initial business set up assistance, IDCOL loans and GEF grants;
- establishing standards to be met for equipment;
- providing refinancing of loans of POs to their customers (up to 80%);
- providing the GEF and subsequently GPOBA financed grant (commencing at US\$90 per system and declining over the duration of the project to US\$50 per system);
- supervising the activities of POs and coordinating activities between participants (POs, suppliers, and customers).

The preparatory stage of the project showed that the high initial costs to customers and the inability of the majority of rural households to meet this expense in the

short term, combined with the lack of available credit with longer term and lower interest is the main barrier to SHS sales.

### INSTRUMENTS USED

To address the barriers identified, the financing and subsidy mechanism under this project is focused on two main components:

- **output based aid** (funded by GEF, and subsequently from others including GPOBA) – used to provide the subsidy element by buying down the purchase price of the SHS system. The grant is released after IDCOL has verified that the SHS has been appropriately installed and is in working order. The size of this OBA is provided on a reducing basis to the POs, with the objectives of reducing initial cost of sales and some of the POs start up costs, which in turn will lower the SHS price to customers.
- **IDA credits** (to be used in an output based manner)– used to provide soft loans to the POs on 10-year maturity term with 2-year grace period at 6% per annum interest rate. The POs are only refinanced at this attractive rate after IDCOL has verified that the SHS has been appropriately installed and is in working order. This mechanism is then used by the POs to refinance 80% of the credit sales to customers.

In addition, GEF and GPOBA have provided project preparatory grant (PDF), which is used for initial activities performed by IDCOL, such as assistance to POs in terms of personnel training in SHS installation and

maintenance, and business planning and development, and consumer awareness program including advertisements, SHS installation demonstrations, and several SHS pilot set ups.

### INSTITUTIONAL ARRANGEMENTS

Under the project, the POs will provide a one-stop-shop to customers, by sourcing the SHS technologies and equipment, installing the SHS, maintaining the SHS after sale, and most importantly providing customers with access to loans for credit sales. The PO can be any registered entity (private firms, NGO or micro-finance institutions, or other community organization). However, the POs must satisfy criteria set by IDCOL, such as good business record, good recovery rate and previous record of micro-financing activities.

The POs are selected by calling for invitation issued periodically by IDCOL, who then provides grants and refinancing, set technical specification for solar equipment, develop publicity materials, provide training, and monitor the PO's performance.

POs are allowed to set up their own terms for customer lending and credit sales, although they must comply with IDCOL guidelines. Typically, the credit sale terms involves a customer down payment of 15% of total costs, and loan with flat interest rates of between 6% and 15% to be paid over 3 years.

### OUTCOMES

The project has been successful, shown by the significant increase in the number of SHS sold and installed since the project started in 2002, as shown in the figure.

Key factors contributing to the success of the projects are:

- The ability to develop existing NGO/MFIs to operate as SHS vendors – the existing NGO/MFIs has the knowledge and experience in providing financial services to rural communities and the selection process ensures that they have good collection history and strong enough to develop a credit line.
- Strong incentives to go out and offer micro credit when a credible Output based aid package is put in place.

The initial marketing and customer awareness – it is important to establish a market for SHS. This was achieved by the training the new vendors and developing customers confidence and awareness of the advantages and benefits of SHS.

