

Case-Study

Project Title:	Micro-utility Model
Theme:	Solar Home Systems (SHSs)
Project Duration:	7-6 years
Executing Agency/Agencies:	Grameen Shakti(GS)
Implementing Agency/ Agencies:	Grameen Shakti
Partners/Beneficiaries:	Shopkeepers, groups of people who cannot afford a Solar Home System and individuals.

Project Cost: Average of \$350 per person for installation; 10,000 beneficiaries.

Background/Overview: There cannot be any economic development without electricity. Only 30% of Bangladeshi people have access to grid electricity and most of them live in cities. As a result, rural communities suffer from an under-utilized economy and depressed business activities. This lack of power reduces business hours and does not enable people to access modern technology and equipment which are required for development. Mobility of the people is also hampered after dusk due to security problems.

GS solar program has addressed many of these issues by extending business hours and increasing business turnover. However, many people cannot afford Solar Home Systems individually. This is one of the barriers to the scaling up of the GS Solar Program and the revitalization of the rural economy, through the use of Solar PV technology.

Strategy/What was planned: GS has developed a special program to make it easier for those who cannot afford SHSs individually. Under this program, GS allows people to share the cost and the subsequent benefit of using a SHS. This model allows the installer of the system, who is the actual owner, to share his costs and increase his income, by giving other people the benefit of electricity without buying the SHS. This program is based on the ownership model because this ensures individual responsibility. The actual owner of the system is responsible for paying installments to GS. He/she repays the due amount to GS by renting out electricity to other people, especially to his/her neighbors. This project is particularly targeted towards the shopkeepers.

Activities: GS staff implemented intense promotional campaigns among the shopkeepers to popularize the model. GS has also developed an attractive package so that more people become interested to become owners of SHSs. For instance the entrepreneur or future owner of the SHS does not have to pay any service charges, but makes a down payment of only 10% to become the owner in three and a half years. Hence, micro-utility model has become very popular among the shopkeepers. Currently, more than a thousand SHSs have been installed under this model. This solar PV technology model has facilitated income generation, thus bringing immense benefit to its users. This model has also helped GS to scale up its program by reaching those who cannot afford a SHS individually. Currently, GS has been installing more than 2000 SHSs per month.

Impact: Mr. Umor has a grocery shop at Kormal bazaar. He had bought a SHS with six lamps. He is using one lamp himself and has rented out the other lamps to neighboring shops for a fee of 7 cents a night per lamp. In this way he has increased his income and the income of the neighboring shops.

Micro-utility model has increased business turnover and has extended business hours in rural bazaars. Shopkeepers can now afford pollution free, efficient lighting at minimum costs and keep their shops open after dusk. Some shopkeepers under the micro-utility model have also started to pursue other businesses, besides renting out light and earnings from their shops. They have installed solar powered mobile phones, called Polli Phone or village pay phone. This has been a hugely successful income generating application of the GS technology.

Customers have enjoyed greater mobility and can come to markets after dusk; there are reduced health risks and less danger of fire due to kerosene lamps not being used. Apart from earning more than Tk. 450 users also save 360 taka, spent on kerosene. Installment for SHS per month is about Tk 650. Most important of all; women enjoy greater mobility and freedom because their security has been enhanced.

Technological level after activity: The technology used is highly modern, but it is easy to use and maintain. One usually needs 50 W solar modules with four/five 6 W fluorescent lamps. Health cost and kerosene cost is reduced. After making full payment, there are very little additional costs. Costs are covered by the income generated in a very short time (3 to 4 years). Lamps can be used 4 hours a day.

Lessons learned/Success factors: This model has been a success because it maximized the utility of clients by tying the appropriate technology with income generation. The following factors should be kept in mind when designing similar models:

- identifying and meeting the needs of the people.
- proper identification of the target groups.
- designing simple, easy to use but effective technological packages.

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