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DEMONSTRATION OF PV MICRO-UTILITY SYSTEM FOR RURAL ELECTRIFICATION

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Abstract—Many rural market places in Bangladesh rely on inefficient and expensive fossil fuel based lighting. Photovoltaic (PV) based electricity is an interesting option to provide quality light and better service in these situations. A PV based micro-utility system was initiated in a rural market in Bangladesh in October 1999. Twenty one shop owners were provided electricity for 5 h a day on fee-for-service basis, and paid a tariff daily. A local operator cum technician was trained to take care of the system and in charge of repair, maintenance and tariff collection. Feedback from the users of the system indicates that PV based electricity has been providing very satisfactory service to the consumers. The success of this type of PV dissemination model has been due to the users' willingness to pay a daily tariff, clear agreements with the Bazaar Management Committee and users, and operator training. The model proved to be successful and two more rural markets showed interest in this approach of rural electrification. This is likely to succeed in other countries with similar socio-economic conditions.

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