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Demonstration of multi-purpose battery charging station for rural electrification

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Abstract

A 1 kWp multi purpose Battery Charging Station (BCS) as a rural electrification system installed in a remote village in Vietnam provides charging facility to the batteries brought by the users and also supplies electricity to a cultural center. About forty-five families charge their batteries (20–50 Ah capacity) for lighting and black and white TV. The BCS has also provided better health services, new entertainment opportunities and has connected the isolated village to the world through a PV powered radiotelephone. The local and the district government actively participated in implementing the BCS, which has resulted in its continued operation since its installation in 1998. The details of the site selection, and technical and financial management of the BCS is described. An analysis of the systems operation and use of the facility illustrates the factors to be considered for the successful implementation of BCS in remote rural areas of developing countries.

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