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Handbook of Secondary Storage Batteries and Charge Regulators in Photovoltaic Systems Final Report

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Editorial Note:

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DISCLAIMER

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ABSTRACT

Solar photovoltaic systems often require battery subsystems to store reserve electrical energy for times of zero insulation. This handbook is designed to help the system designer make optimum choices of battery type, battery size and charge control circuits. Typical battery performance characteristics are summarized for four types of lead-acid batteries: pure lead, lead-calcium and lead-antimony pasted flat plate and lead-antimony tubular positive types. Similar data is also provided for pocket plate nickel cadmium batteries.

Economics play a significant ro1e in battery selection. Relative costs of each battery type are summarized under a variety of operating regimes expected for solar PV installations.

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