Effects of a Battery Equalizer on a Solar Powered System

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The charge equalizer was able to sustain the same amount of voltage in all the battery configurations regardless of the number of batteries in the array or their individual positions. Implementation of multiple cells in an electrical system has many advantages, such as the ability to replace a single cell instead of the entire battery. However, using multiple cells also causes a particular cell to deplete before the others, causing the entire system to stop working; this can be fixed using what is called a battery equalizer. This study investigated arrays of four, three, and two battery systems with corresponding loads, swapping the batteries in the array to test the effect of individual batteries' performances vs their positions. The use of a battery equalizer is extremely important for the extension of battery life. For future studies, research a large scale use of an equalizer on renewable energy sources.

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