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How can bidirectional charging/discharging a battery achieve maximum PV power utilization?
In addition, with the proposed strategies, the bidirectional charging/discharging capability of the battery is able to achieve the maximum PV power utilization. All the proposed strategies can be realized by the digital signal processor without adding any additional circuit, component, and communication mechanism.

Is the airport suitable for solar PV power generation?
The airport building structure is suitablefor the installation of solar PV power generation equipment (ICAO,2018). Due to its expansive and level topography,the airport offers ample land area and favourable lighting conditions for PV energy generation.

Why should a PV Charger abandon the maximum power point tracking function?
Traditionally,in order to realize these charging strategies,the PV charger should abandon the maximum power point tracking function to maintain the power flow balance. As a result,the output power of the PV array will be decreased.

What is bidirectional power flow control?
Therefore, bidirectional power flow control strategies are proposed to achieve the maximum PV power utilization as well as to realize the hybrid charging methods. In addition, with the proposed strategies, the bidirectional charging/discharging capability of the battery is able to achieve the maximum PV power utilization.

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