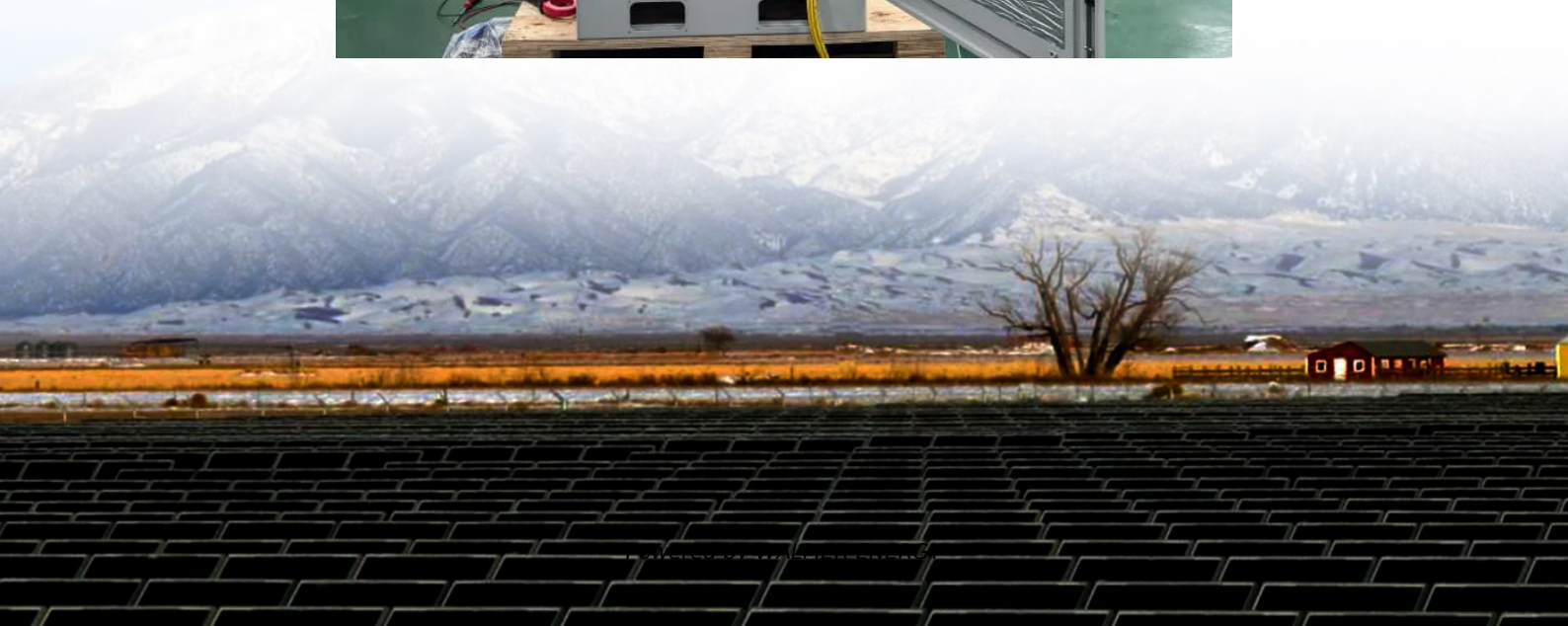


Solar energy storage peak and valley electricity prices





Overview

What is the value of energy storage?

The value of energy storage is that the prosumer will store part of the surplus generation and use it for their own use when the electricity price is high.

What is the virtual price of energy storage use?

In summary, the virtual price of energy storage use is set as $E_{p_{st}} - j = E_{p_m} + 0.01$. To ensure that prosumers first sell electricity in the LEM before storing and then sending the excess to the grid, we set the virtual price of energy storage slightly lower than the feed-in tariff given by $E_{p_{j-st}} = E_{p_s} - g - 0.01$.

What is a virtual price of energy storage use under Tou tariff policy?

As will be discussed shortly, under TOU tariff policy, when the grid price is low, the prosumers will choose to purchase electricity from the grid rather than using energy storage to release electricity. In summary, the virtual price of energy storage use is set as $E_{p_{st}} - j = E_{p_m} + 0.01$.

What is energy storage for prosumers?

Due to the differences between residential and industrial & commercial users (both in terms of prices and load characteristics like voltage classes), energy storage for prosumers is only considered to be traded with similar users and the price is set according to the peak of the grid sales price.



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