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Lithium Iron Phosphate batteries are limited

Lithium Iron Phosphate batteries cannot provide the maximum energy they are capable of storing. The batteries cannot be charged to 100% or the battery can be damaged. In addition, the batteries cannot be depleted to less than a 30% charge or those could be damaged, if I am reading the information correctly. Therefore, because these batteries should discharge between 30% and 80% of the maximum charge they could store, this facility would only be capable of releasing around 50% of the total possible charge. This facility would not be capable of 250 megawatts of power but more likely, 125- 130 megawatts. This decreases the energy it will provide without damaging the batteries. This decreases the profit the investors can expect. Do the investors know the limitations of these batteries?

Because this project will pave over 12+ acres of Open Space land with concrete and install 1100 galvanized steel containers, wildlife, hikers, bikers, and nature lovers will be penalized and restricted. This is not a smart, ecological, or efficient use of the space and does not provide the maximum electricity it advertises. Lastly, this is not a clean environment. It is a dusty, pollenated, debris filled area and will make keeping the containers and the batteries clean virtually impossible. Please note the following information from the internet.

Per the website: <https://www.ufinebattery.com/blog/lifepo4-battery-charging-and-discharging/#:~:text=Charging%20LiFePO4%20batteries%20to%20around,charges%20may%20reduce%20their%20lifespan.>

Part 4. How to extend the life of the LiFePO4 battery?

how to extend the life of the lifepo4 battery

Power batteries are composed of batteries in groups, which are realized by connecting single cells in series and parallel. Due to its characteristics, lithium-ion phosphate battery packs have high requirements for the consistency of single cells. As long as one battery in a group of batteries differs from the others, the effectiveness of the entire battery pack will be greatly reduced.

Moreover, the cycle life of the LFP battery is related to the quality, specifications, frequency of use, charging and discharging methods, and other factors of the battery. Therefore, when using lithium iron batteries, pay attention to usage and maintenance to minimize unnecessary losses and extend the battery's cycle life.

1. Avoid overcharging and discharging

Lithium-ion batteries are particularly sensitive to overcharging and discharging, so avoid charging more than 100% or discharging less than 20%. Charging when the battery

power drops to about 30% is recommended. Keeping battery power between 40-80% can slow down the battery's cycle age.

2. Control charging time

The charging time should not be too long. It is recommended to use the original charger or a brand charger that meets the standards for charging and cuts off the power in time after it is fully charged.

3. Keep the battery clean

Clean the dust and dirt on the battery surface frequently to prevent dust and debris from entering the battery and affecting battery life.