



# Battery repowering for SMA off-grid systems

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Over 800 million people in the world have no access to an electricity supply. A sustainable solution is available in the form of off-grid systems. These produce renewable energy from sun, wind or water in the exact places where it is needed. SMA off-grid systems are extremely robust and can therefore be modernized, even when the battery's lifecycle ends. Replacing old lead-acid batteries now with modern lithium-ion technology increases the efficiency and service life of the off-grid system.

Electrification of remote regions of the world is a major challenge. Established solutions based on renewable energies can make a decisive contribution to increased supply reliability. Stand-alone grids produce electricity from local renewable sources such as the sun or wind and make the electricity available directly on-site.

A core component in the SMA off-grid system is the Sunny Island battery inverter. This automatically regulates the balance between generated and consumed energy. It possesses a battery, generator and load control for this purpose. It can thus stave off generation and load peaks at any time and ensure a continuous energy supply.

Simply replacing the battery lengthens the system's service life and optimizes its performance at the same time. Thanks to the modular design, existing off-grid systems can be converted to lithium batteries quickly and easily with Sunny Island battery inverters. For this purpose, SMA has collaborated with its partners Tesvolt and Asantys Systems to develop a package solution that makes existing systems ready for the future.

Existing off-grid systems with SMA Sunny Island 5048 are modernized with the Tesvolt TS48 lithium storage device and the monitoring tool from Asantys. This tool makes it possible to monitor the overall system remotely from anywhere in the world. It visualizes system power and monitors the individual components.

Hi, Are SMA SI 5048 Sunny Island inverters (5kW) and SMA Si 8.0H-12 Sunny (6kW) compatible with Lithium Leisure Battery LiFePO4? If no, is there any alternative solution rather than a full replacement of the inverter system?

Hi Mohamed, Thank you for your request. Sunny Island battery inverters SI 4.4, 6.0 and SI 8.0 -11/-12/-13 as well as SI 4548-US and SI 6048-US are compatible with many lithium batteries, but unfortunately not with Leisure Battery LiFePO4. In this document you can find the approved batteries. Please note: battery inverters Sunny Island 5048 are only compatible with lead-acid batteries, so you may need to replace your SI 5048 devices with Sunny Island-12/-13.

Hi We have a sunny island 5048 unit. Backup power inverter controls batteries when the main power goes out. Been dead for a couple years. Displays nothing. Tech came out and said it was bad and out of warranty.



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Installed summer of 2017 and worked until About 2021. Seems like a short period of time for this unit to go bad. Funny thing is since it has been installed it has never even been used since we have never lost power from the grid. Big waste and frustrating A-Utah

Sorry to hear that you are not satisfied with our Sunny Island at all. In case of a failure, it is always necessary to get back to SMA as soon as possible to settle things out. Please consider also that our products are equipped with a factory warranty but we need a customer's feedback as soon as possible.

are these batteries made with renewable energy or do we still need to burn oil to make them? in other words: if the oil stops tomorrow can i still get a replacement battery? the worst are batteries made with nuclear energy input?

No. I have not found a solution from SMA for old No-US equipment. I hope that SMA can find a solution and more equipment can be reused. There may be a technical reason that was not explained to me why this is not possible.

Contact us for free full report

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