

# **Energy storage system configuration and installation**

What is energy storage system (ESS)?

33 1. ESS introduction & features What is ESS? An Energy Storage System (ESS) is a specific type of power system that integrates a power grid connection with a Victron Inverter/Charger, GX device and battery system. It stores solar energy in your battery during the day for use later on when the sun stops shining.

#### How do I set up an ESS system?

There are a few different ways to set an ESS system up. A combination of these are possible as well: o DC coupled ESS o AC coupled ESS o Energy meter is used o Grid parallel o Essential loads are used See below drawings to get an idea of all possibilities.

# How do I install a victron energy ESS system?

Hub-2 (v3) Assistant - ESS Assistant 24 8.3. Hub-4 Assistant - ESS Assistant 24 9. ESS Quick Installation Guide 26 9.1. Step 1 - Understand how a Victron Energy ESS system works 26 9.2. Step 2 - Decide what type of ESS 26 9.3. Step 3 - Select the system hardware 27 9.4. Step 4 - Install all equipment

# How do I control ess without grid meter setting?

See the Settings -> ESS -> Control without grid-meter setting. 2. Systems with a canbus-connected lithium system: when the GX device is no longer receiving information from the battery, via the CAN-bus. 3. When charging the battery is not allowed (BMS max charge current = 0A, or max charge power = 0W) and there is excess PV power.

## How do I use ESS battery life?

o Connect to AC when available, keep batteries charged: Use ESS Assistant and select the "Keep batteries charged" mode. Make use of 'off-peak tariffs' o Not available in the ESS System yet, but it will be implemented. Winter mode o The ESS BatteryLife feature will make sure that the batteries are not unnecessarily cycled around a low SoC.

## Does ESS require battery capacity?

o Battery capacity is no longer requiredby the Assistant. Instead, enable battery monitor and enter the capacity on the General tab in VEConfigure. ESS design and installation manual Page 24 Comparisons to Hub Assistents

Two-stage optimization configuration of shared energy storage for multi-distributed photovoltaic clusters in rural distribution networks considering self-consumption and self-sufficiency



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