How to prioritize solar in a DC-coupled system

System

Multi, powered by the grid, solar charger, batteries, AC loads and optionally also DC loads.

Question

Out of the box, a Multi or Quattro inverter/charger will always have its charger enabled. So when the batteries need a charge during the day, it will be charging them together with the solar charger. And not only will the charger be enabled, AC loads will also be powered from the grid instead of solar power.

Since there is solar power, I want to first use solar power, and only when there is none or not enough solar power I want it to fall back to the grid.

How can I do that?

There are two answers, one for recently shipped Multis and Quattros that have the new microprocessor (7 digit firmware version number starts with 26 or 27), and one for the older type. The firmware version of the older microprocessor starts with 19 or 20.

Answer (new micro)

Use the Self-consumption hub-1 Assistant. It will only charge the batteries from the grid if needed to preserve battery health, and leave the rest for the solar chargers. The mechanism preserving battery health is called sustain.

To install this assistant, see the instructions here: How to add an Assistant from start to finish.

This assistant has more relevant optional features:

- load shedding
- feeding back dc-coupled solar power to the grid
- periodic equalisation/destratification charge

See the welcome page and the policy selection page in the Assistant configuration wizard for more detailed information. Want to read this pages and don't have a Multi or Quattro product available? No problem, it is possible to go through the pages without configuring a system with real hardware.

Answer (old micro)

Use the virtual switch to enable ignore the AC input, based on battery voltage, and optionally also on power being drawn by the AC loads.

We will add more information and some screenshots explaining this installation soon.

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