ESS Assistant manual

to be completed.

it is basically equal to the [Hub-4 Assistant](#), but then with a few additions:

- Power from an MPPT can now not only be used to power AC loads, but also be fed-in to the utility
- and more

See the draft blog:

https://www.victronenergy.com/blog/?p=7656&preview=1&_ppp=2216339b68

Hub-1 Assistant -> ESS Assistant

Policies

- Policy 1: Connected to mains, feedback
- Policy 4: Prevent feeding energy to the grid: two options, one use ESS and do not enable Solarcharger excess feed-in and it will be always be connected to the grid. Or use the Virtual Switch with ignore AC-Input.

Situations where the Hub-1 Assistant can do things that ESS cannot.

- Policy 2: Keep batteries charged: You could use ESS, but it will not charge with power from the grid. Solution coming soon.
- Policy 3: Disconnect from the mains when possible: Keep Hub-1 Assistant or, often a simpler and therefor better solution, use the Virtual Switch with Ignore AC-Input.
- Policy 5: Connected to mains, no feedback. Perhaps a better name would have been Keep batteries charged, no feedback. You could use ESS, but it will not charge with power from the grid. Solution coming soon.

Load shedding

Loadshedding is a feature in Hub-1 that is not often used, and therefore we did not implement it in the ESS Assistant. Instead of sticking to Hub-1, which we do not recommend and also not support(1), consider using other options.

For example (mis-)use the genset/start stop in CCGX.

Hub-2 (v3) Assistant -> ESS Assistant

Policies

- Disconnect at night: disconnecting at night is not possible with the ESS Assistant, but why would you want to do that? Disconnecting only causes problems with overload, flickering, etc. With the ESS Assistant you can obtain the same or a better level of self-consumption without having to disconnect.

- Invert priority: use the virtual switch instead.
- Connect to AC input when available

- Connect to AC when available, keep batteries charged: not deprecated yet, but will be deprecated soon.

Make use of 'off peak tariffs'

Not available in the ESS System yet, but coming somewhere in 2017.

Winter mode

Replaced by battery life, and the (soon coming) Keep batteries charged option in the CCGX.

Load shedding

Loadshedding is a feature in Hub-2 that is not often used, and therefore we did not implement it in the ESS Assistant. Instead of sticking to Hub-2, which we do not recommend and also not support(!), consider using other options.

For example (mis-)use the genset/start stop in CCGX.

Prevent feeding energy back to the grid

The ESS can do this when you have a Fronius inverter. See the Zero feed-in option.

For other brands of PV Inverters, you'll have to keep using the Hub2 v3 Assistant. Do read suchandsuch section in the blog post.

Hub4 Assistant -> ESS Assistant

- Battery capacity is no longer asked by the Assistant. Instead, enter the capacity on the General tab.
- It will ask for the grid code as a first thing, instead of giving an error after almost completing the Assistant
- The PV Inverter Assistant is included in the ESS Assistant: it is no longer necessary to separately add it.

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