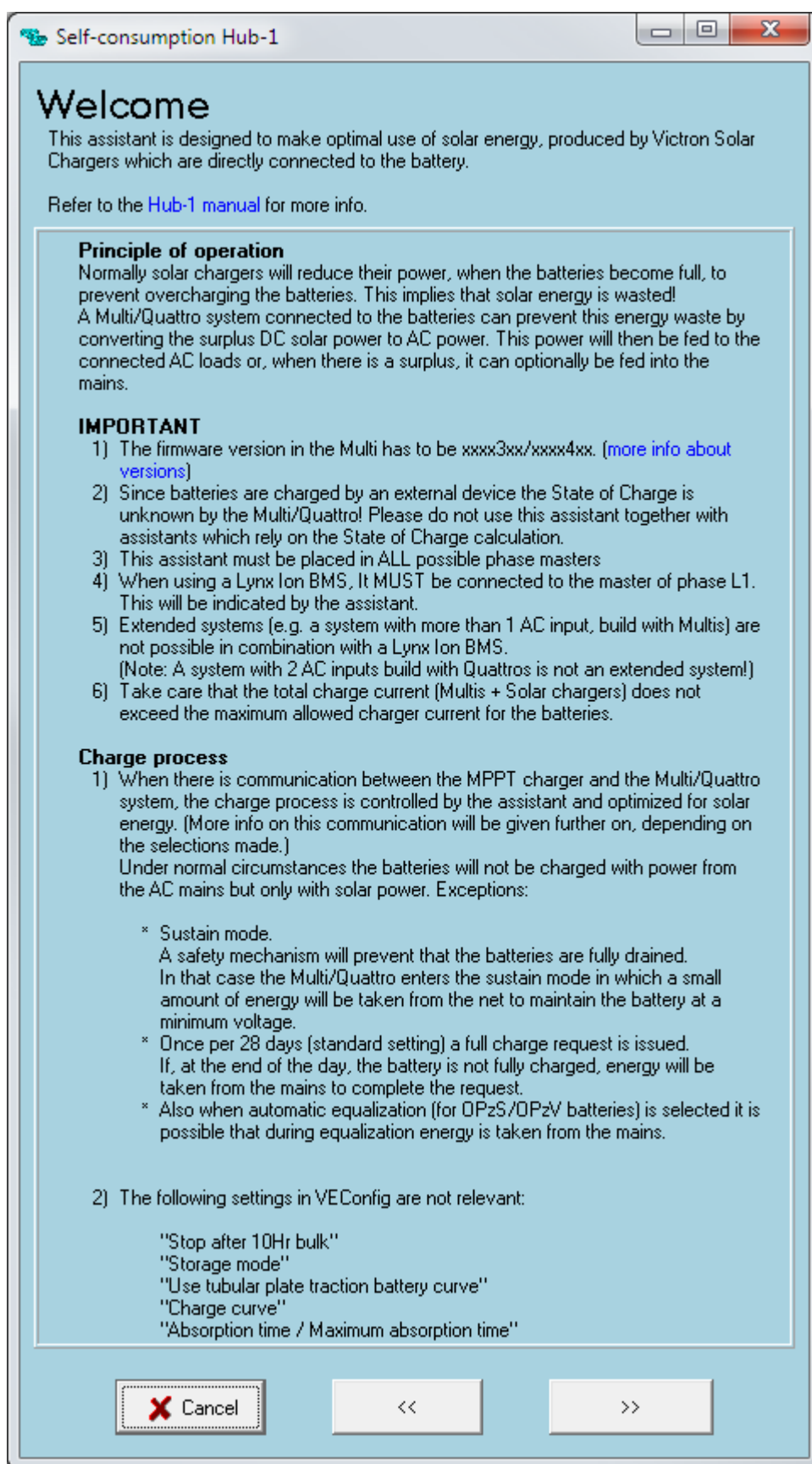
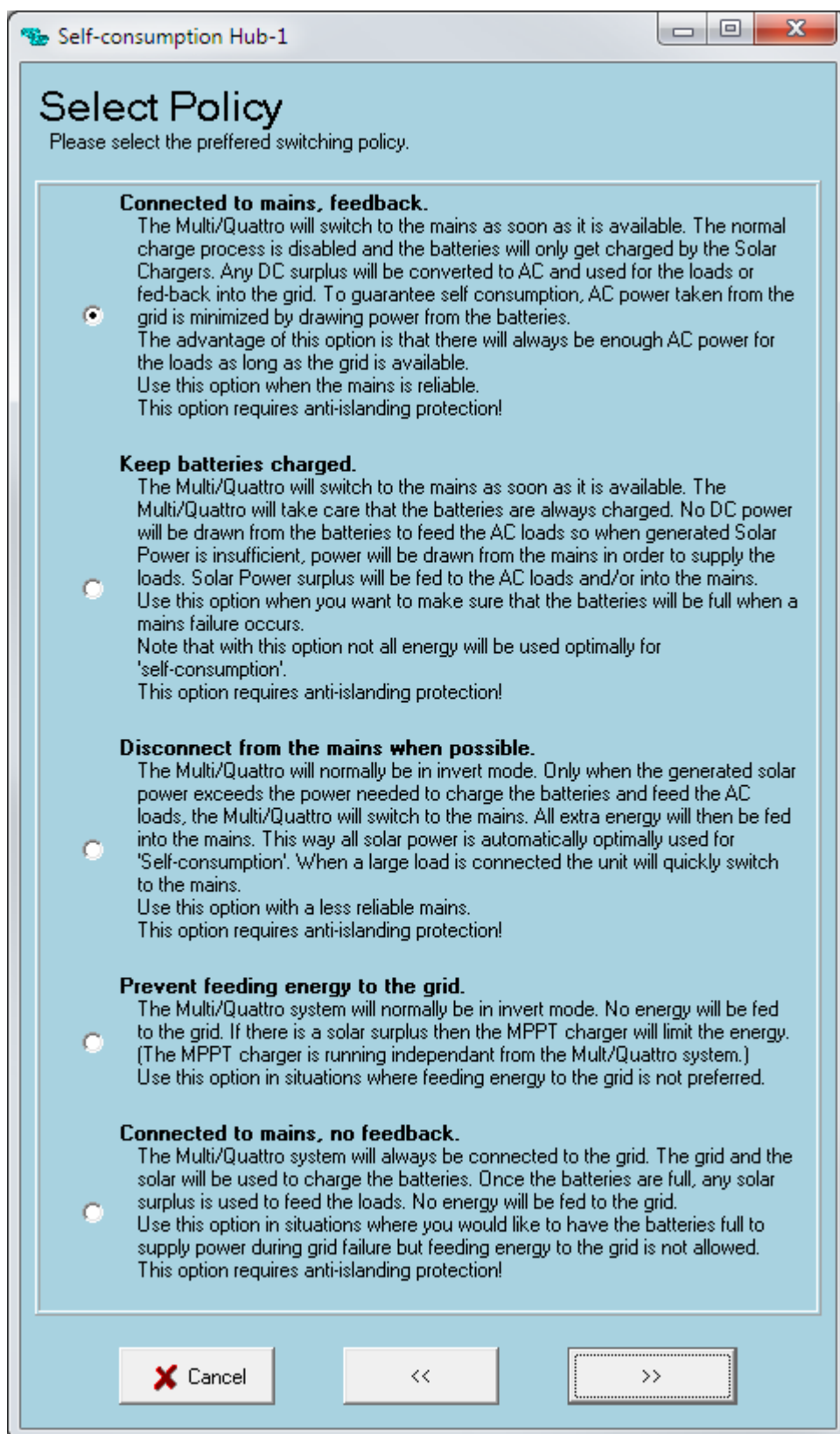


Self-consumption hub-1





Self-consumption Hub-1

Select Policy

Please select the preferred switching policy.

- ☒
Connected to mains, feedback.
 The Multi/Quattro will switch to the mains as soon as it is available. The normal charge process is disabled and the batteries will only get charged by the Solar Chargers. Any DC surplus will be converted to AC and used for the loads or fed-back into the grid. To guarantee self consumption, AC power taken from the grid is minimized by drawing power from the batteries.
 The advantage of this option is that there will always be enough AC power for the loads as long as the grid is available.
 Use this option when the mains is reliable.
 This option requires anti-islanding protection!
- ☐
Keep batteries charged.
 The Multi/Quattro will switch to the mains as soon as it is available. The Multi/Quattro will take care that the batteries are always charged. No DC power will be drawn from the batteries to feed the AC loads so when generated Solar Power is insufficient, power will be drawn from the mains in order to supply the loads. Solar Power surplus will be fed to the AC loads and/or into the mains.
 Use this option when you want to make sure that the batteries will be full when a mains failure occurs.
 Note that with this option not all energy will be used optimally for 'self-consumption'.
 This option requires anti-islanding protection!
- ☐
Disconnect from the mains when possible.
 The Multi/Quattro will normally be in invert mode. Only when the generated solar power exceeds the power needed to charge the batteries and feed the AC loads, the Multi/Quattro will switch to the mains. All extra energy will then be fed into the mains. This way all solar power is automatically optimally used for 'Self-consumption'. When a large load is connected the unit will quickly switch to the mains.
 Use this option with a less reliable mains.
 This option requires anti-islanding protection!
- ☐
Prevent feeding energy to the grid.
 The Multi/Quattro system will normally be in invert mode. No energy will be fed to the grid. If there is a solar surplus then the MPPT charger will limit the energy. (The MPPT charger is running independant from the Mult/Quattro system.)
 Use this option in situations where feeding energy to the grid is not preferred.
- ☐
Connected to mains, no feedback.
 The Multi/Quattro system will always be connected to the grid. The grid and the solar will be used to charge the batteries. Once the batteries are full, any solar surplus is used to feed the loads. No energy will be fed to the grid.
 Use this option in situations where you would like to have the batteries full to supply power during grid failure but feeding energy to the grid is not allowed.
 This option requires anti-islanding protection!

When to use the hub-1 Assistant?

Use the Assistant for these systems with Solar chargers, ie. dc-coupled solar power:

- Grid that allows feed-back

- Grid that does not allow feed-back
- Grid + a backup generator

Do not use this Assistant for the following systems, even though they have solar chargers:

- No grid nor generator; solar only
- Only a generator connected to the ac-input of the Multi or Quattro, no grid.

More information

See our [blog post on hub-1](#).

Frequently asked questions

When is the grid used in Hub-1?

- To feed energy back to the grid
- To prevent inverter overload
- For sustain (to prevent killing your battery)
- To make sure equalize is finished (once every 28 days)

Do I need to connect the Multi or Quattro to the MPPT with VE.Can?

The advantages of using the VE.Bus to VE.Can interface are:

- The MPPT will automatically use the settings from the Multi, no need to configure the MPPT.
- Equalize is managed by the Multi
- The charge states will be synchronized

Notes for systems where the Multi and the MPPT are not communicating (for example an MPPT 100/50 that does not have a VE.Can comm. port):

- Power can still be fed back to the grid!
- Set the absorption and float voltage of the MPPT slightly higher than the same set points in the Multi
- In a Lithium system, make sure that the MPPT can be switched off by the BMS.

What happens when there is to power to be fed back, but there is no grid available?

The solar charger will charge the batteries until the absorption voltage is reached, and then reduces it's output. It switches to regulation on battery voltage instead of MPPT or output current. In other words: the batteries will not be overcharged.

What happens when the battery is full and feeding back the grid is has not been enabled in the configuration?

See previous answer.

I do not have a Multi with the new microprocessor, what are my alternatives?

With older Multis and Quattros it is unfortunately not possible to feed power from DC back into the grid. It is possible to [prioritize solar in a dc-coupled system](#).

~~DISQUS~~

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