

Application note – How to set operation mode on mySigen App

Revision History

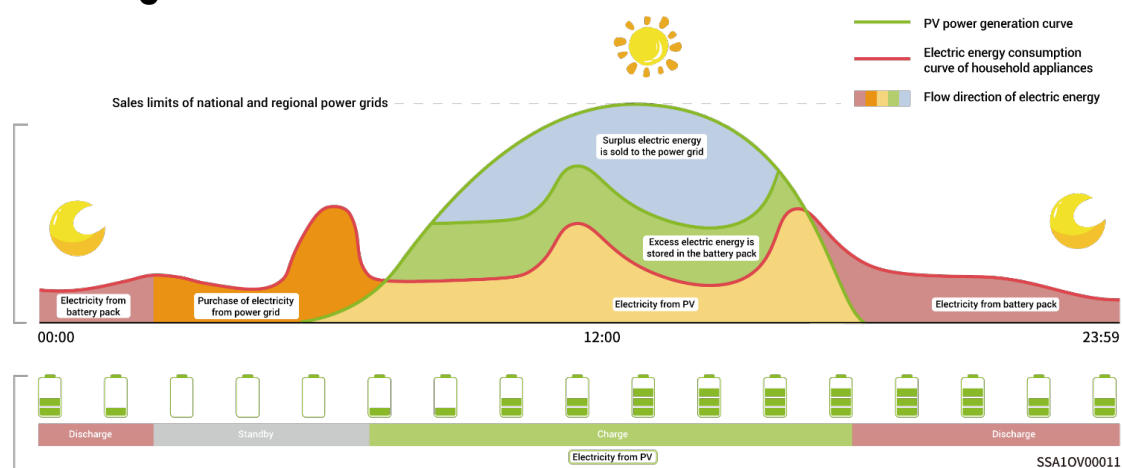
Version 1.0, August 2024 – Initial release

Technical Description

1. Multiple operation modes

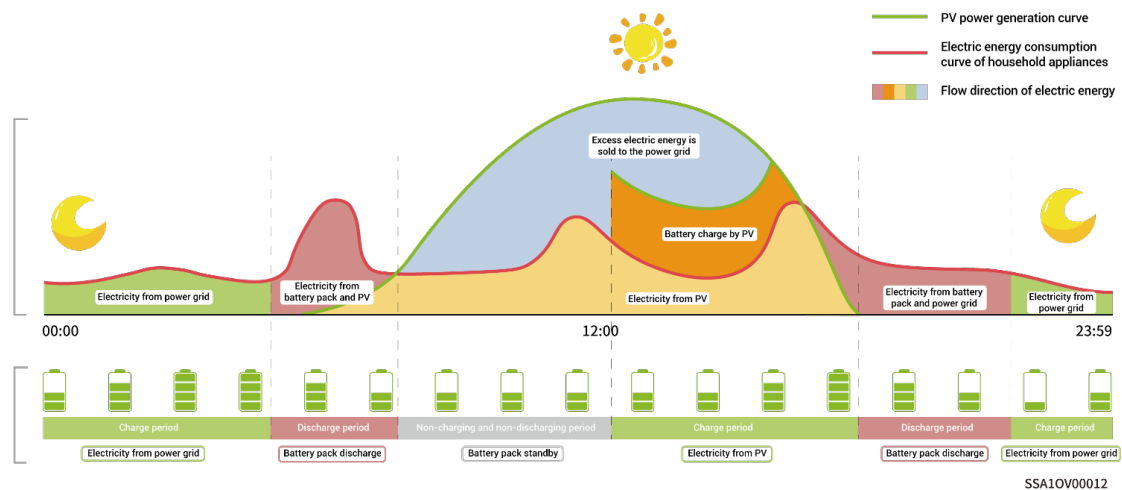
There are six working modes for the energy storage system, including Sigen AI Mode, Time-based Control Mode, Maximum Self-Consumption Mode, Fully Feed-in to Grid Mode, VPP Mode, and Remote EMS Mode.

1.1 Sigen AI Mode



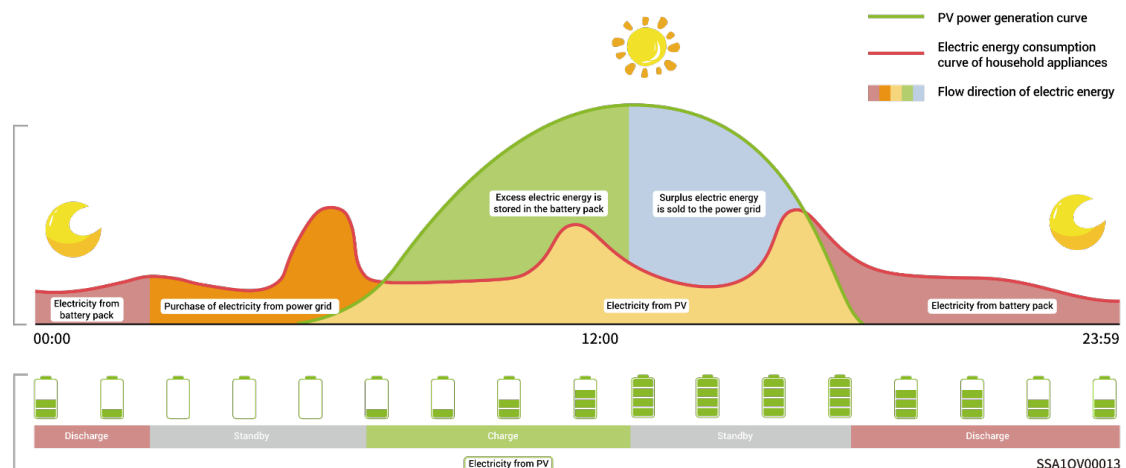
In Sigen AI Mode, the system records data on electricity usage by operating in maximum self-consumption mode for the first 7 days to learn energy usage patterns. It can also access dynamic tariffs to customize smart electricity solutions, maximizing cost savings for customers.

1.2 Time-based Control Mode



In Time-based Control mode, users can manually set up to 24 charging, discharging or self-consumption periods on mySigen App. The remaining periods will automatically be adjusted to charging periods if solar power is available, and to non-discharging periods if solar power is not available. During the day, any surplus PV power can be sold to the grid or used to charge batteries. At night, batteries are charged from the grid when the electricity price is low in order to save on the electricity bill.

1.3 Maximum Self-Consumption Mode



When there is sufficient solar power, the electric energy generated by the PV system will first be used to power the loads, with any excess energy being stored in the batteries. If there is still surplus energy, it will be sold to the grid. When there is insufficient solar power, the batteries will release electric energy to loads. By increasing the self-consumption ratio of the PV system and improving the self-sufficiency ratio of household energy, you can effectively save on your electric bills.

1.4 Fully Feed-in to Grid Mode

During the day, if the solar panel power is higher than what the inverter can handle, the excess energy is stored in the batteries and can be sold back to the grid as credits on your energy bill. When the solar panel power is lower than what the inverter can handle, or at night when there is no solar power, the batteries are used to ensure that the inverter works at its maximum capacity.

1.5 VPP Mode

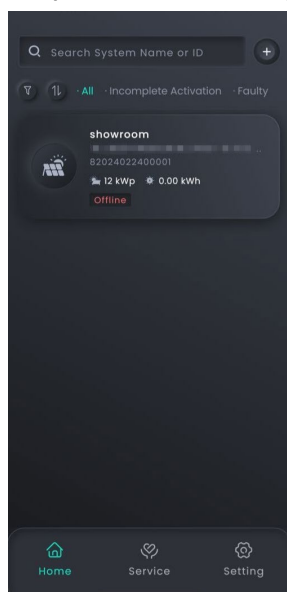
SigenStor supports users to activate VPP to help stabilize the grid for their community with clean energy stored in Sigen Battery. Once their VPP plan has been activated in the third-party VPP platform, VPP mode will be displayed on the operation mode list.

1.6 Remote EMS Mode

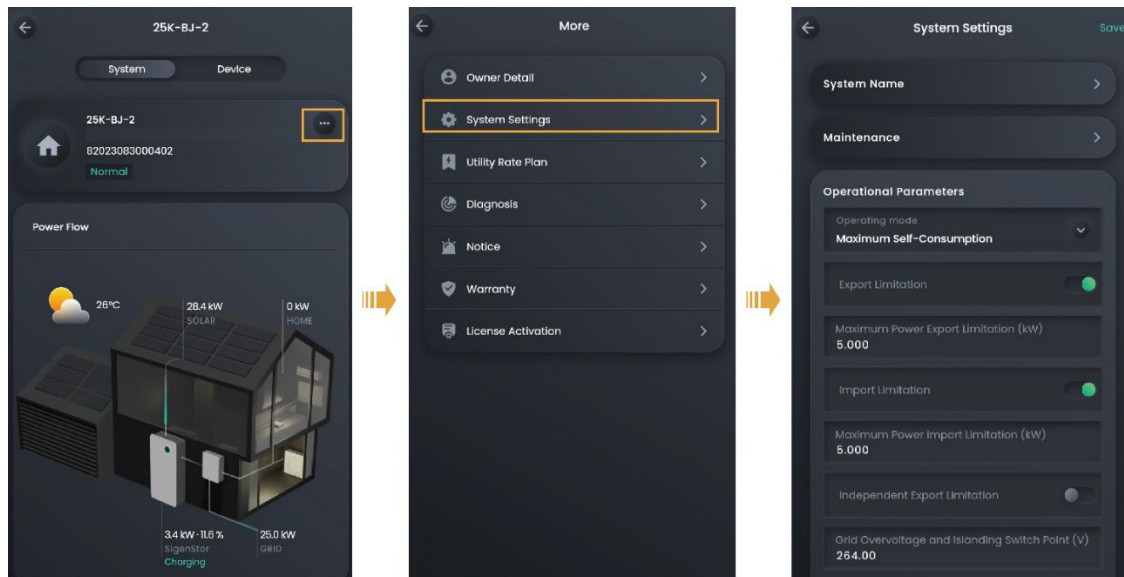
If there is a third-party EMS and users want the third-party EMS to control the system instead of the EMS inside SigenStor, they can choose the remote EMS mode. With this mode, users can monitor SigenStor devices on their own platform.

2. Set operation mode and parameters as installers

Step 1: Choose the system you want to set parameters



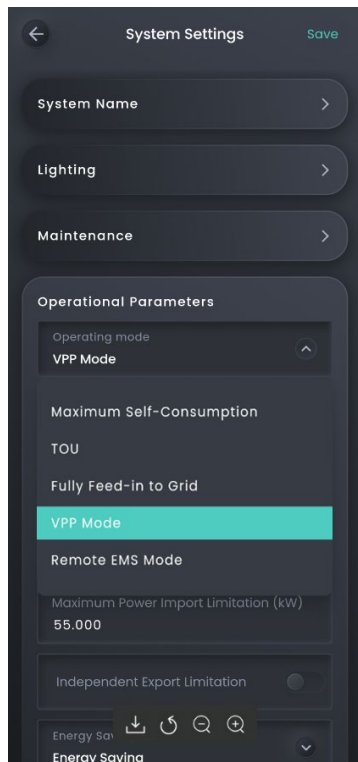
Step 2: Click “...” next to the system name



Step 3: Choose “System Settings” on the “More” screen

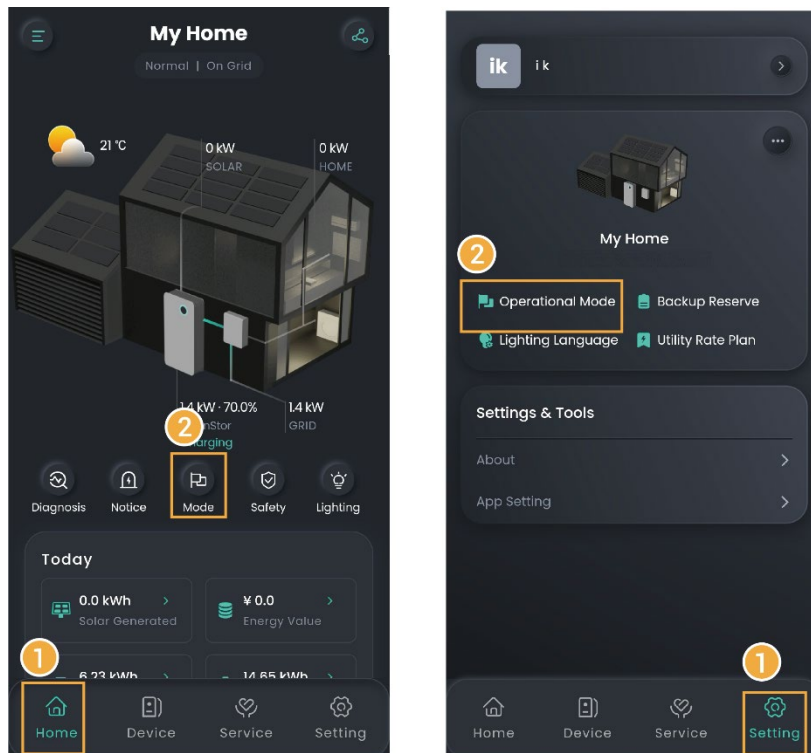
Step 4: Choose the operating mode in operational parameters

Note that there are five operation modes for installers to choose from, including Fully Feed-in to Grid Mode, Maximum Self-Consumption Mode, TOU Mode, VPP Mode, and Remote EMS Mode. The Sigen AI mode can only be set by the homeowners’ account.



3. Set operation mode and parameters as homeowners

There are two methods for homeowners to set operation modes.

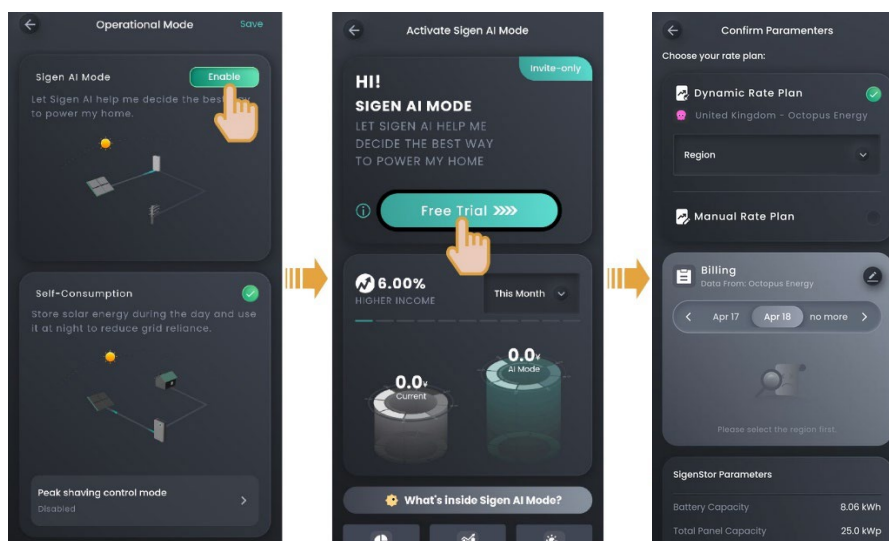


Method 1: Choose “Mode” on the Home screen

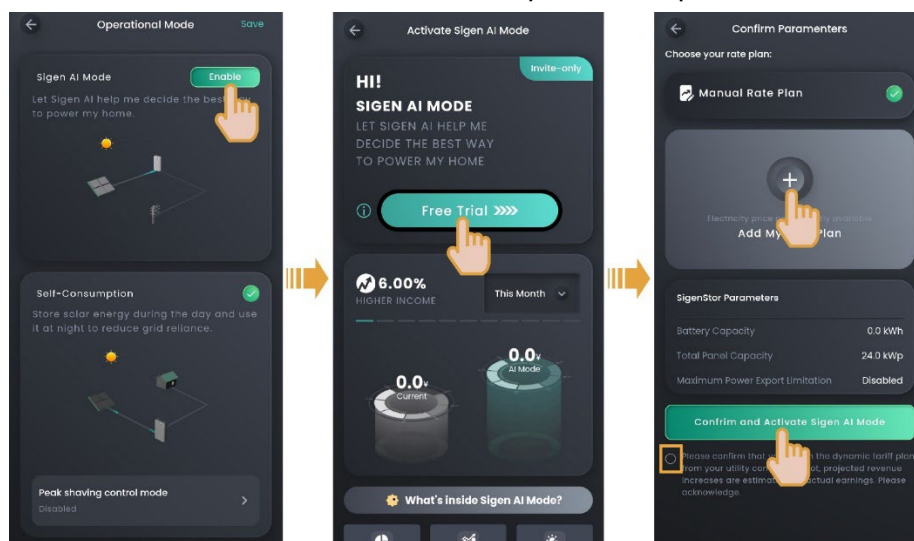
Method 2: Choose “Operational Mode” on the Setting screen

3.1 Set Sigener AI mode

Sigener AI mode supports dynamic tariff access in France, Czech Republic, Italy, Bulgaria, Greece, Latvia, Germany, Lithuania, Luxembourg, Netherlands, Belgium, Spain, Portugal, Estonia, Sweden, Poland, the United Kingdom, and Austria.



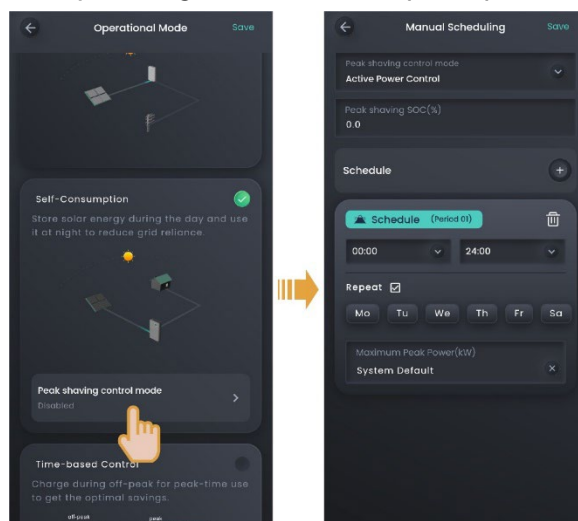
In other countries, users can manually add rate plan to activate Sigen AI mode.



To stop using Sigen AI mode, users must manually select a different operation mode.

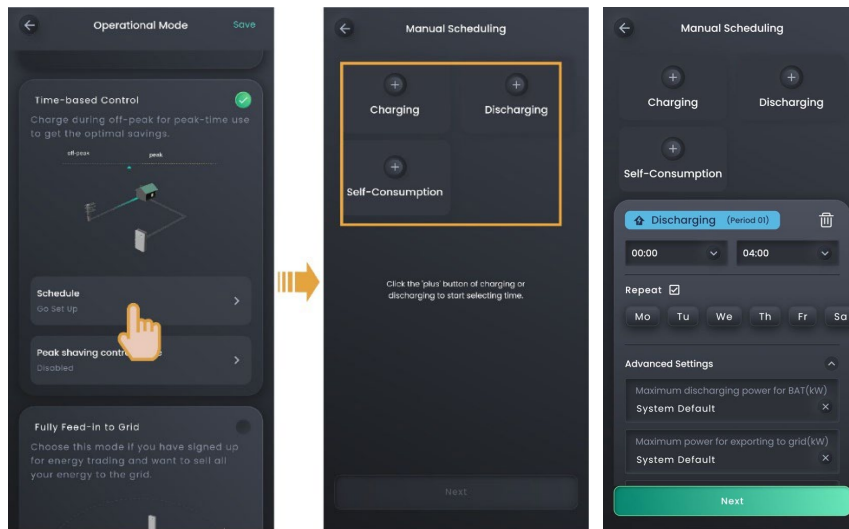
3.2 Set Self-consumption mode

In some regions, the electricity bill is calculated as follows: Total electricity bill = Cost at peak power + cost for electricity usage + other costs. Peak power refers to the maximum power imported from the grid. You can lower your electricity bill by setting the maximum peak power imported from the grid.



3.3 Set Time-based control mode

Charging, discharging, and self-consumption periods can be set, but only three slots are available

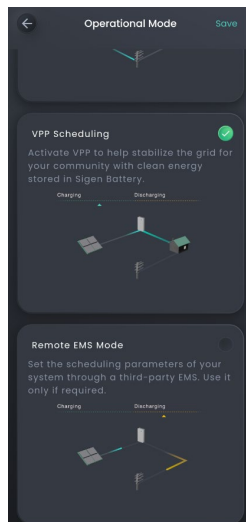


3.4 Set fully fed to grid mode



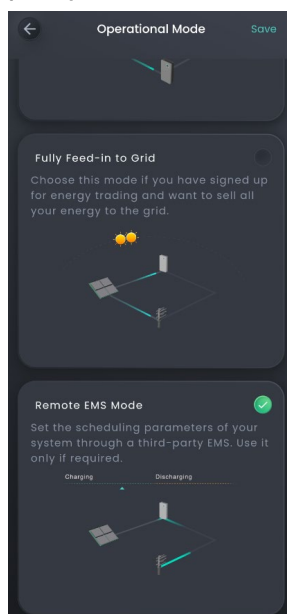
3.5 Set VPP mode

After activating the VPP mode, please be aware that users cannot freely switch to other operation modes. Users can only exit the VPP mode in the third-party VPP platform. Once this is done, the SigenStor system will automatically switch to the maximum self-consumption mode.



3.6 Set remote EMS mode

Users can switch to other modes at any time. If users choose a different mode, the SigenStor device will not accept scheduling commands from the third-party EMS.



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