

# EEBUS §14a Function Description

## Understanding EnWG §14a

Since 1.1.2024, Section 14a of the EnWG allows grid operators to temporarily reduce the power consumption of controllable devices in the event of impending grid overloads. In return, consumers benefit from reduced grid charges. This regulation applies to devices with an energy consumption above 4,2kW, such as heat pumps, EV chargers and home batteries.

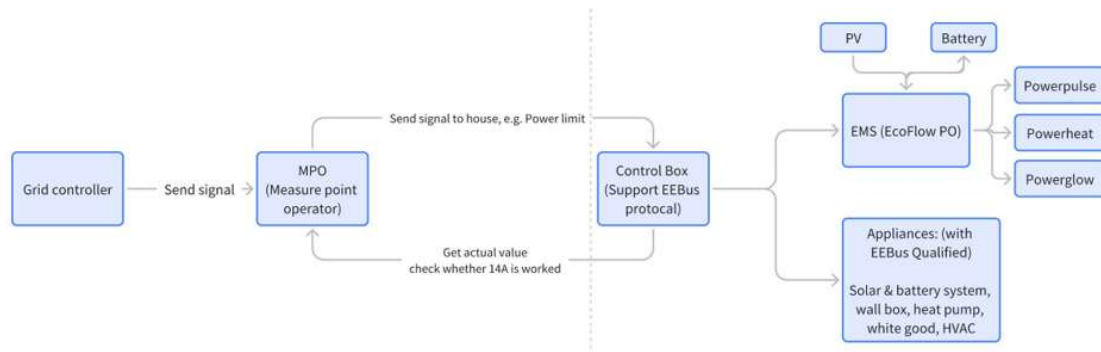
## Incentives

For end-customers, paragraph 14a exposes three new electricity grid pricing modules that customers can choose from.

- a. **Module 1** – 110 -190€ flat yearly discount on Grid Fee: This module provides a fixed discount on the total grid fee, regardless of consumption patterns. It's beneficial for users who want predictable savings on their grid costs without adjusting their energy usage.
- b. **Module 2** – 60% reduced Grid Fee per kWh: Under this module, the grid fee per kilowatt-hour (kWh) is reduced, making it more attractive for high-energy consumers. This requires a separate meter point for that device and is only a benefit in case of high consumption devices.
- c. **Module 3** – Dynamic Grid Fee: This module introduces a variable grid fee that changes based on time windows that are different for each grid provider. This is only available in combination with Module 1.

## §14a via EMS (EEBUS)

1. EcoFlow supports §14a via digital interface and protocol EEBus, allowing grid operators to reduce power consumption in case of grid overload via digital signals. EcoFlow currently does not support analog interface through relays for consumption dimming signals.
2. Ecoflow currently only supports EEBUS Use Case of LPC-*Limitation of power consumption*.
3. Overview of the whole procedure.



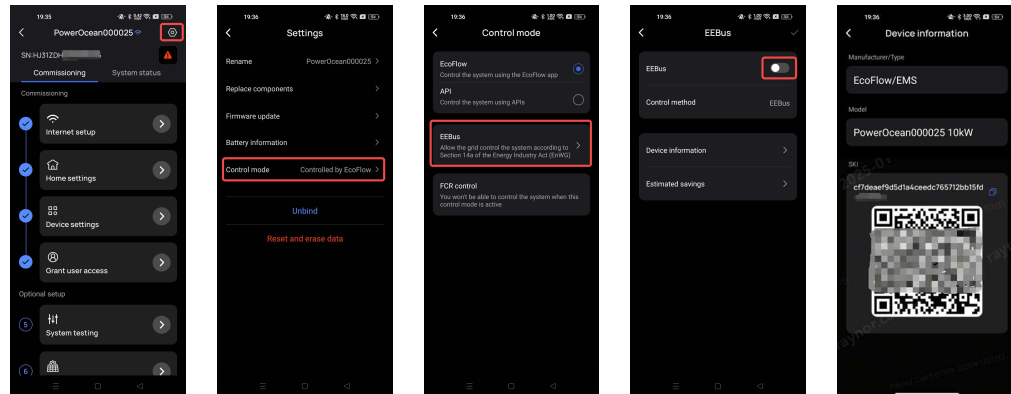
4. Supported devices:
  - a. Hybrid Inverters (mandatory)
    - PowerOcean: EF HD-P3-6K0-S1 / 8K0-S1 / 10K0-S1 / 12K0-S1
    - PowerOcean Plus: EF HD-P3- 15K0-S1 / 20K0-S1 / 25K0-S1 /29K9-S1
  - b. Ecosystem appliances (**Notes:** EcoFlow ecosystem appliances comply to EnWG §14a only when used with a hybrid inverter listed above):
    - i. Heat Pump
      - PowerHeat: EF AD-P1-9K0-S1 / 20K-S1
    - ii. EV Charger
      - PowerPulse: EF-PP-H01-1
    - iii. Immersion Heater
      - PowerGlow: EF RD-P1-3K5-S1 / 6K0-S1 / 9K0-S1
  - c. Tested but not limited to compatability with CLS manufacturers:  
PPC AG, Theben, Swistec, VIVAVIS

## 5. How to set

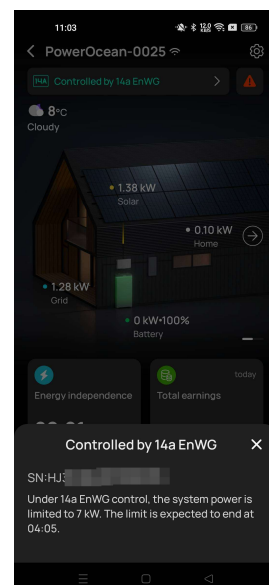
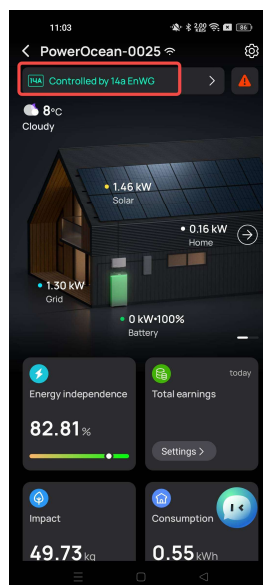
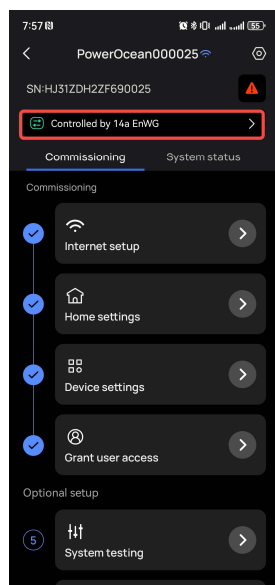
a. SKI is generated in the Ecoflow pro APP and sent to the MPO-Meter point operator who will add the SKI as a trusted device

### b. Procedure

- EcoFlow PowerOcean Hybrid Inverter and CLS-box are connected to the same LAN of the home via Wifi or Ethernet.
- EcoFlow Pro App: Generating SKI on EcoFlow Pro App.



- Sends the SKI to the MPO-Meter point operator, he then adds the SKI as a trusted device .
- EcoFlow PowerOcean is integrated to the CLS over LAN by the grid provider using the SKI
- EcoFlow App will present below status message when controlled by EnWG §14a (for EcoFlow Pro App & EcoFlow App)



6. How the grid operators (DSO) controls the EcoFlow PowerOcean ecosystem according to §14a:

a. Power limitation:

i. During a grid congestion event, the DSO may dim the grid consumption of Ecoflow PowerOcean (charging speed) and the ecosystem appliances connected.

b. Power distribution:

i. In the current basic version, PowerOcean distributes power equally for EcoFlow ecosystem products.

ii. The digital solution offers great benefits compared to analog solution as energy can be optimized inside the home. For internal home optimization, EcoFlow will release further updates to the current solution later.