

# SolarEdge CSS OD Energy Module Management Unit replacement - Support kit manual

This manual describes the procedure for replacing the energy module management unit for the CSS OD.

## Revision history

- Version 1.0, November 2024 - Initial release

## Kit contents

- Energy module management unit PN: FLD-CSS-OD-BC-EMMU-01

## Required tools

- Multimeter
- Insulated tools
- Insulated shoes
- Insulated gloves

## Before you begin

There are two versions of the system: On-grid system and the Backup Interface (BUI) system. The procedure for shutting down the system differs depending on the installed system.

### On-grid system

Turn off all AC circuit breakers supplying the battery cabinet and the air conditioner.

### Shut down the Battery inverter

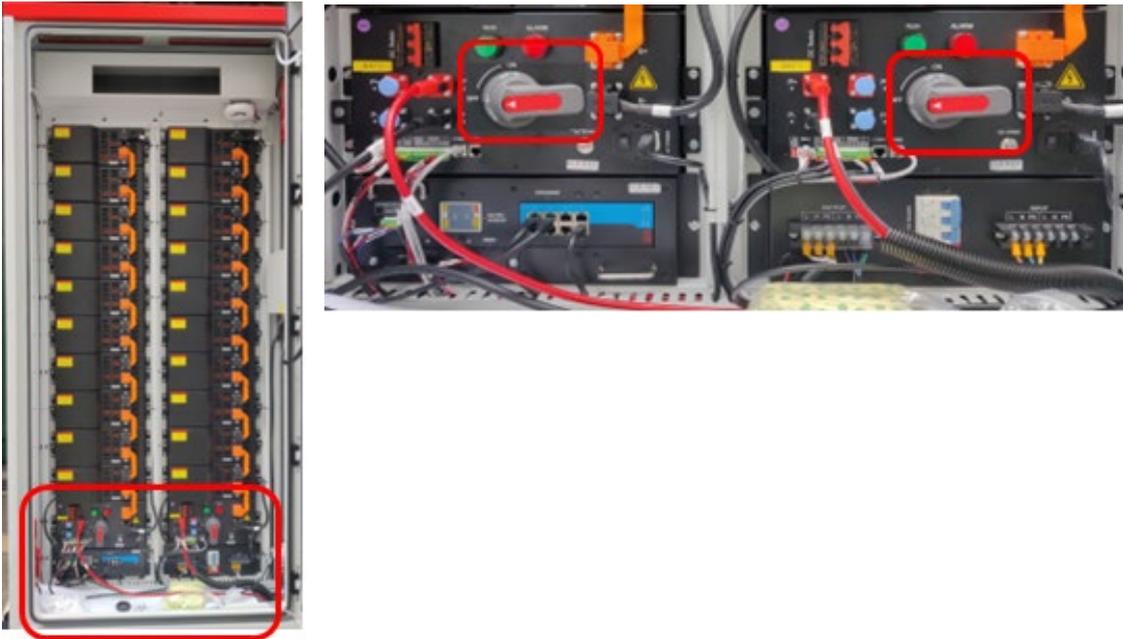
On the bottom of the battery inverter, turn OFF (counterclockwise) the two (2) black PCS DC switches.



### Inverter switches

#### Shut down the Battery cabinet

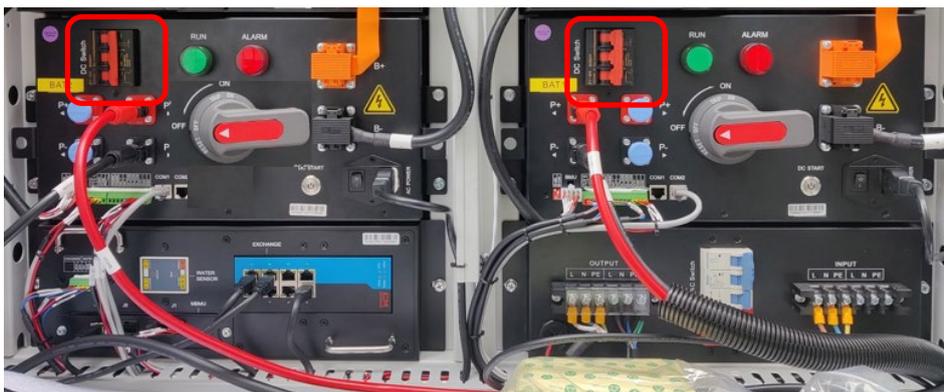
1. Open the battery cabinet door and keep it open using the support bar located inside the cabinet.
2. Turn off the two red and grey high voltage switches.



3. Turn off the blue AC switch (move it to the right).



4. Turn OFF both red DC switches by moving them to the right.



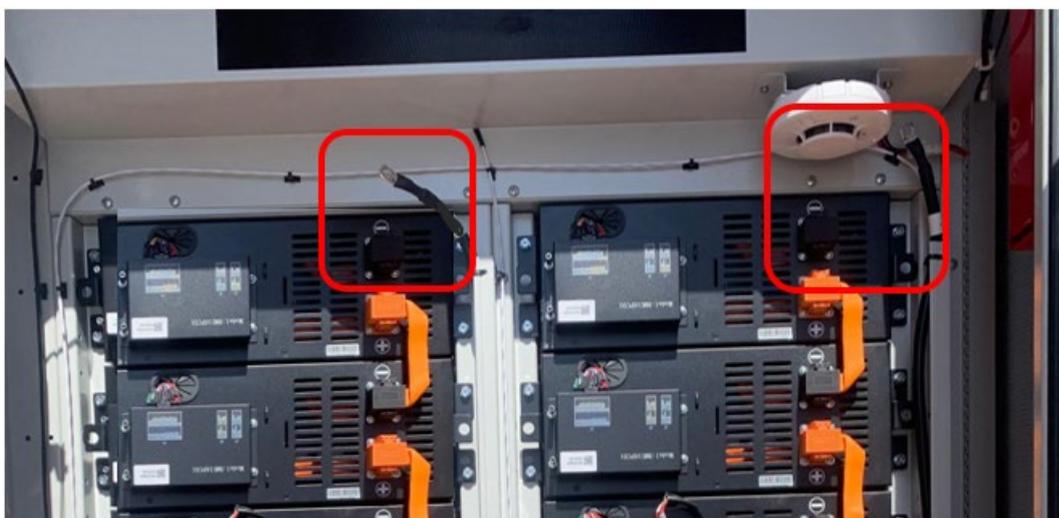
5. When the circuit breaker switches turned OFF, the High Voltage Box indicator light is OFF.



6. Ensure that the inverter indicator lights are OFF.



7. Disconnect the black cables from the top of the battery strings on both sides of the battery cabinet, as shown below.



- Disconnect the black cables from the bottom of the battery strings on both sides of the battery cabinet.



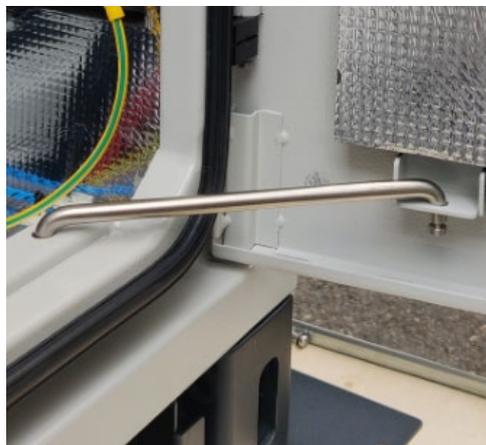
**WARNING!**

Be aware that each individual battery is still “live” at 52V.

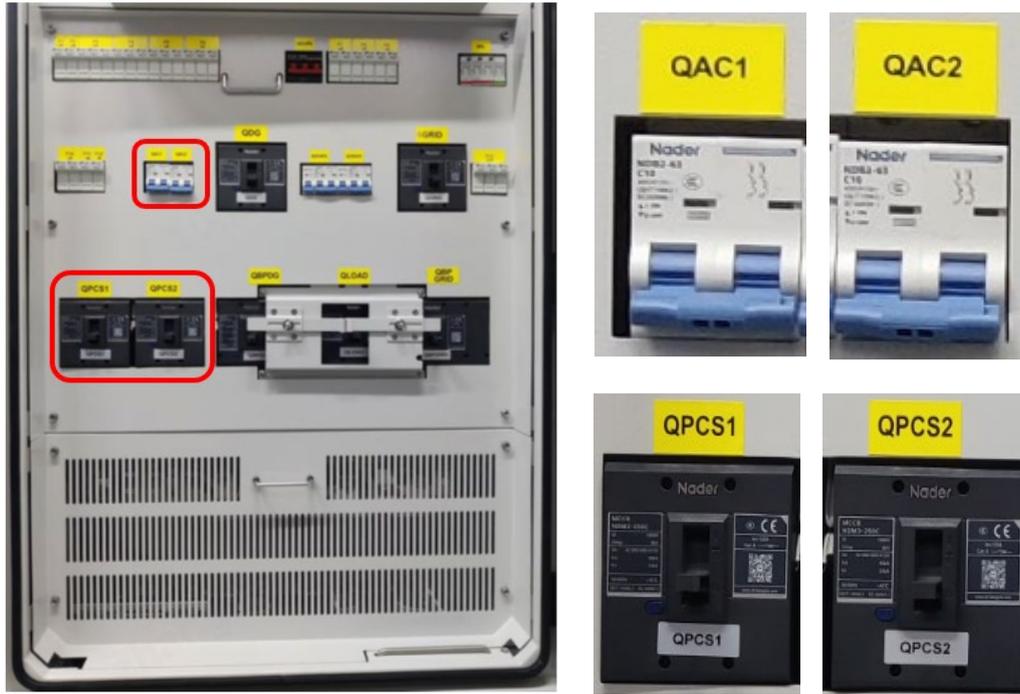
**BUI system**

**Shut down the BUI**

- Turn off the AC circuit breakers supplying the BUI.
- Open the Backup Interface (BUI) door and keep it open using the support bar located inside as shown in the picture below.



- Turn off the circuit breaker switches labeled QAC1, QAC2, QPCS1, QPCS2.



12. Close the BUI door and turn the door handle 90° clockwise.
13. Lock the door using the key provided.

### Shut down the Battery inverter

Refer to the steps in Shut down the Battery inverter.

### Shut down the Battery cabinet

Refer to the steps in Shut down the Battery cabinet.

### Remove the BMU cover

Using a Philips screwdriver, remove the energy module management unit (also identified as the Battery management unit or BMU) protective cover.



### Remove the communication cables from the BMU

1. Remove the communication cables J1, J2 and J4 from the BMU by pressing the tabs on the connectors.



2. While pressing the tab, use a screwdriver to gently lift the connectors out.



## Remove the BMU screws

1. Using a 6mm hex bit, remove the two left screws.
2. Using a Philips screwdriver, remove the two right screws.
3. Discard the faulty BMU.



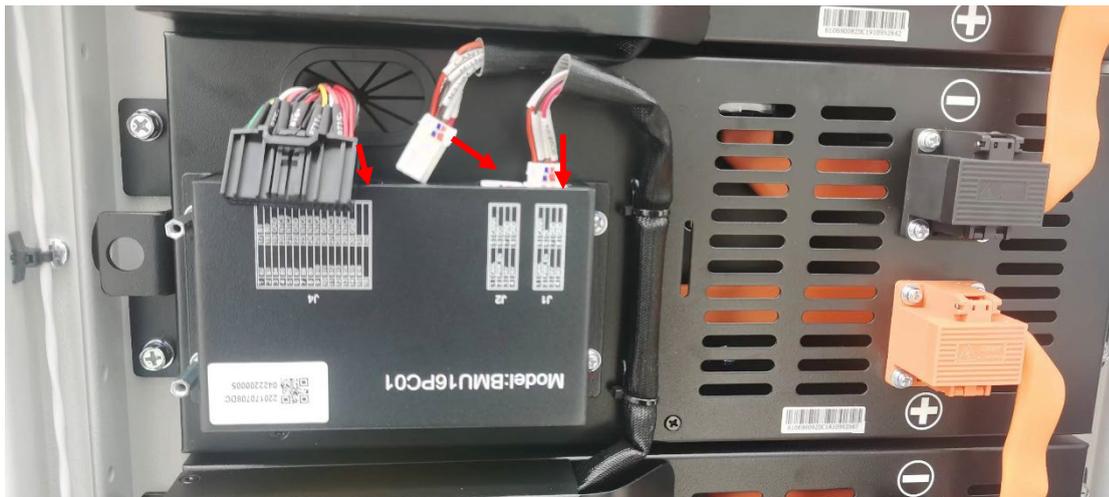
## Replace the BMU

1. Place the new BMU in its position.
2. Using a torque wrench with a 6mm hex bit, on the left side of the BMU, tighten the screws to a torque of 4N·m.
3. Using a Philips screwdriver, on the right side of the BMU, tighten the screws to a torque of 4N·m.



## Connect the communication cables to the BMU

Reconnect the J1, J2 and J4 communication cables.



## Install the BMU cover

1. Place the cover in its position.
2. Using a Philips screwdriver, tighten the screws to a torque of 2N·m.

## Power on the system

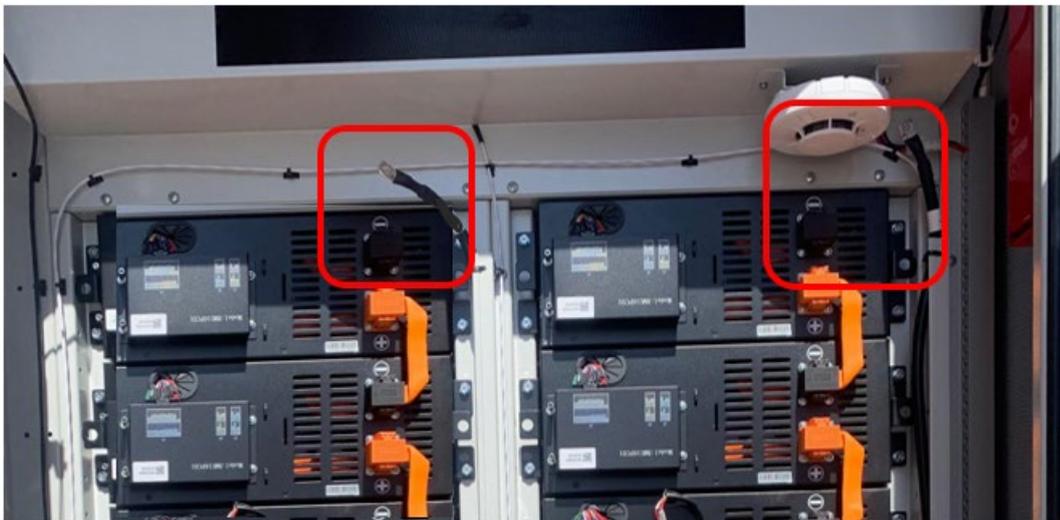
### On-grid system

### Power on the Battery cabinet

1. Connect the black cables at the bottom of the battery strings on both sides of the battery cabinet.



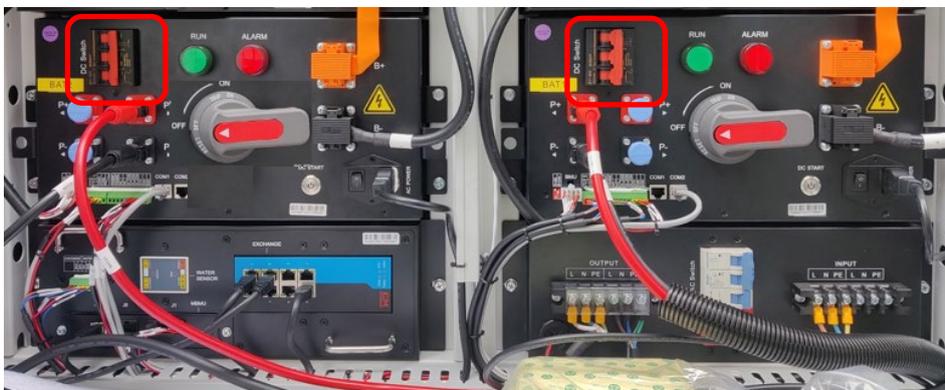
2. Reconnect the black cables at the top of the battery strings on both sides of the battery cabinet, as shown below.



**WARNING!**

Be aware that each individual battery is still “live” at 52V.

3. Turn ON the two red circuit breakers.



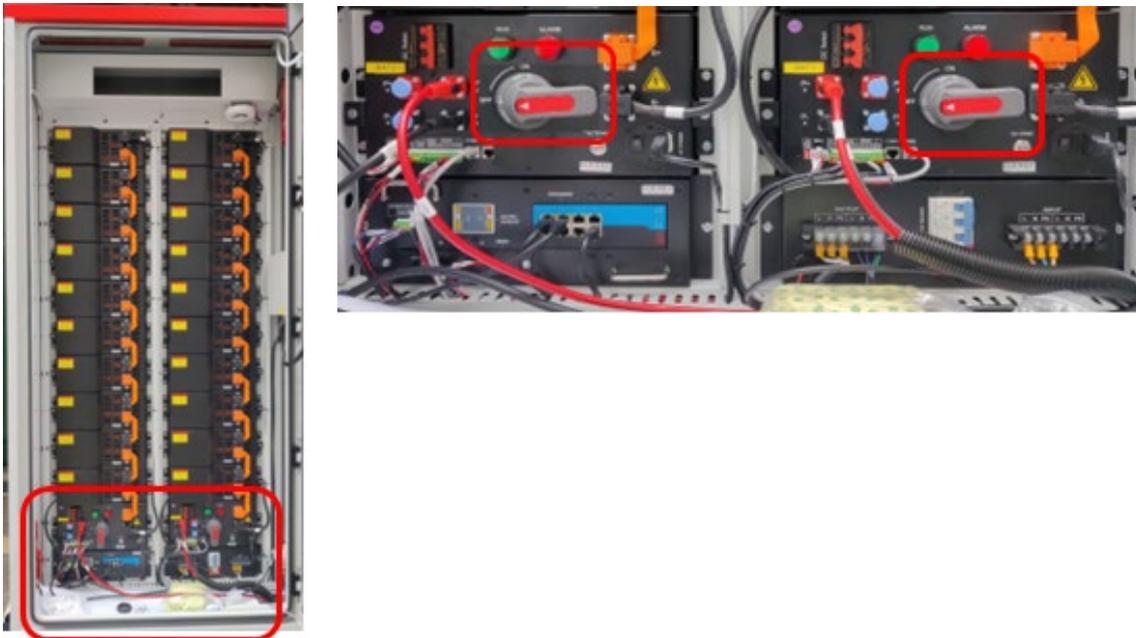
4. When these circuit breakers are turned ON, the High Voltage Box indicator lights are ON.



5. Turn on the blue AC switch (move it to the left).



6. Turn on the two red and grey high voltage switches.



7. Remove the support bar keeping the door open and close the battery cabinet door.

### Power on the Battery inverter

8. At the bottom of the battery inverter, turn ON the two (2) black PCS DC switches.



**Inverter switches**

- 9. Ensure that the inverter indicator lights are ON.



10. Power on all AC circuit breakers supplying the battery cabinet and the air conditioner.

## BUI system

### Power on the Battery cabinet

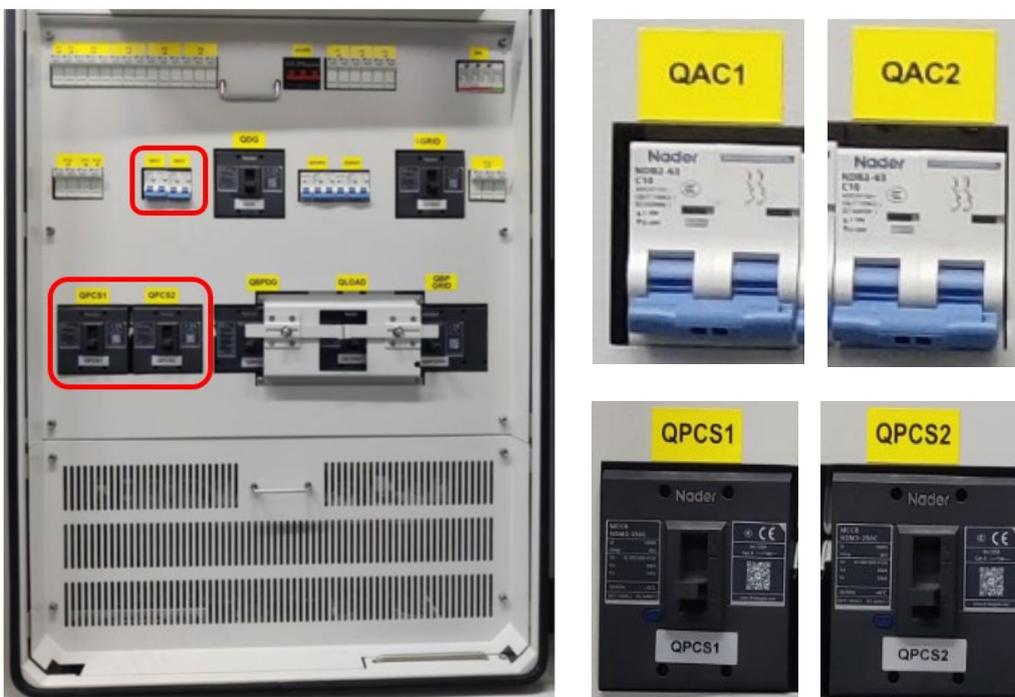
Refer to the steps in Power on the Battery cabinet.

### Power on the Battery inverter

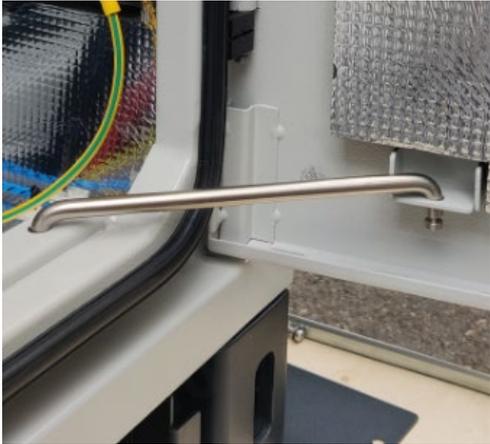
Refer to the steps in Power on the Battery inverter.

### Power on the BUI

1. Unlock the door using the key provided.
2. Open the Backup Interface (BUI) door and turn the door handle 90° counterclockwise.
3. Turn on the circuit breaker switches labeled QAC1, QAC2, QPCS1, QPCS2.



4. Remove the support bar keeping the door open and close the BUI door and as shown in the picture below.



5. Turn on the AC circuit breakers supplying the BUI.