Why Load Management for EV Chargers?

What is load management?

Usually, in a home or building installation, regular load appliances and EV charger together share the power limit from the grid; building load equipment is first priority, so the EV charger will need to limit its loading power dynamically according to variations of the building's load power in such cases. It ensures the load equipment operation meanwhile keeping the EV charged at maximum available power.

Why Load management?

•Avoids facility disruption, causing operating losses

•Reduces energy and electrical infrastructure costs

•Avoid tripping of main circuit breaker due to overload.

It will dynamically adjust the charging power in real time, so the car can always charge at the maximum allowable power.

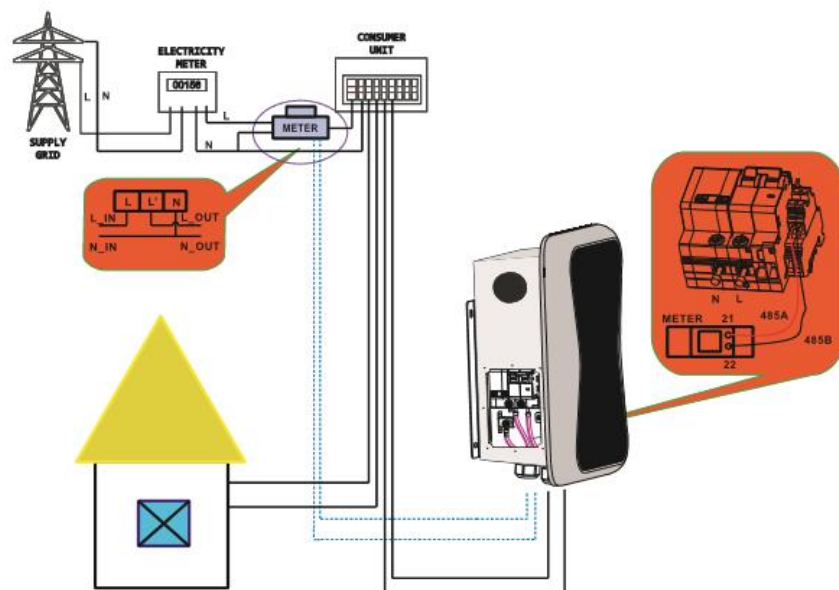## How does the load management of the ATESS EV charger work?

The charger can monitor the total power consumption at the grid side in the charging process through a CT or a meter. If the total power consumption exceeds the preset maximum, the charger will reduce the charging power accordingly.

How to implement load management?

1. **Hardware preparation**

A CT or meter(optional from ATESS) is needed to detect the imported power. If a CT is

used, please wire it as below. (About the selection of CT or meter: when the charging point is single-phase, select the single-phase CT or meter; when the charging point is three-phase, select the three-phase CT or meter. If the distance between the distribution switch and the charging point is within 15 meters, select the CT; if the distance between the distribution switch and the charging point is more than 15 meters, select the meter.)

If a meter is used, the wiring will be as follows:

2. Parameter setting

(1) Connect the EV charger to a laptop with a network cable, and access the parameter setting page on the web browser of the laptop.

(2) Scroll down to find the following parameter: Power Distribution Enable (0:Disable, 1:Enable) and set it to 1 to activate the load management function.

(3) Select power sampling device in the field of the parameter: External Power Sampling Wiring(0: Inner CT 1: PowerMeter). 0 means CT while 1 stands for meter.

4G Account(MaxLen 30):	1111	4G APN(MaxLen 16):	1111
4G Passwd(MaxLen 30):	1111	NetWorking Status:	disconnect
Sloar Mode(0:FAST,1:ECO,2:ECO+):	0	Solar ECO+ StopCharge Current(0-8A):	8
Power Distribution Enable (0:Disable,1:Enable)	0	External Power Smpling Wiring(0:Inner CT 1:PowerMeter):	0
External Maxlimit Power(kW):	11		

Set and Reboot

(4) Set the maximum power import value in the field of External Max Limit Power(kW). To avoid accidental tripping of the main breaker, it is suggested to set this parameter slightly lower than the maximum supply power of the property. e.g., the max supply power from the grid is 15kW, you can set the max power import to 13kW or 14kW.

4G Passwd(MaxLen 30):	1111	NetWorking Status:	disconnect
Solar Mode(0:FAST,1:ECO,2:ECO+):	0	Solar ECO+ StopCharge Current(0-8A):	8
Power Distribution Enable (0:Disable,1:Enable)	0	External Power Smpling Wiring(0:Inner CT 1:PowerMeter):	0
External Maxlimit Power(kW):	11		

Set and Reboot

ATESS