

# SolarEdge EV Charger - Homeowner's Features Guide – Europe

## Revision History

- Version 1.0, November 2023 - Initial release

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## Overview

This guide provides details of the use and activation of EV Charger features that enable homeowners to get the most benefit from their installed SolarEdge EV Charger. The main features presented here are:

- Charging from excess PV
- Setting import limits
- Setting schedules for charging.
- RFID Authorization.
- Reports and Charging History.

To make use of these functionalities, the EV Charger system and the features listed above must appear in the MySolarEdge app. Certain features will not appear in the App if the system does not support the feature (e.g. RFID Management). If none of these features appear in the App, contact your SolarEdge Installer.

## Charge from excess PV

When a meter is installed and configured, you can see the systems excess solar energy that would normally be exported back to the grid. By enabling "Excess PV" the energy that would have been exported to the grid is used to charge the car.

**IMPORTANT NOTE**

When **Excess PV** is enabled, the car starts to charge only when a specific level of power is available. For single-phase systems this level is 1.38kW (6A at 230V) and for three-phase systems the level is 4.14kW (3x6A at 230V). The power level must be at or above this level for at least two minutes for the car to start charging. This specification is based on the requirement of the inverter for a minimum of 6A per phase.

An indicator in the App shows the amount of additional excess power needed to start charging the car. To protect the car, when the necessary excess power falls below the limit again, the car continues charging from the grid for a short period of time.

## Set import limits

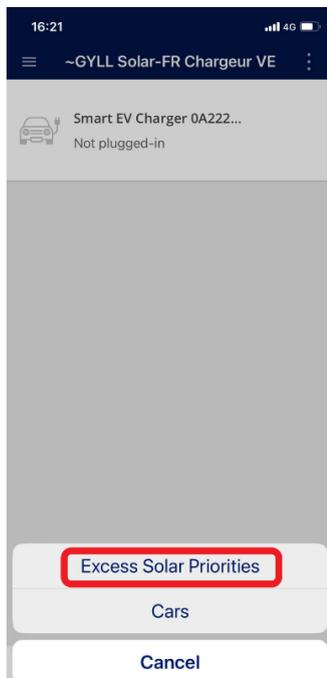
To protect your house from overloading, the installer can activate an import limit so that the house consumption does not overload the main circuit breaker. When this function has activated, the EV Charger reduces its charging power based on the import limitation setting and the consumption of the house. A notification informs you that car charging is reduced due to potential power overload of the house.

## Prioritize devices

When the SolarEdge system includes a battery<sup>1</sup> and other smart energy devices, you can define what gets priority when **Excess PV** is enabled. Using this feature, you can define which appliances get priority for using solar power and you get the highest amount of self-consumption. The default setting prioritizes the battery and then the other installed appliances.

### To set priorities:

In the EV Charger main screen, tap .



<sup>1</sup> This requires firmware version 4.18 or later.

To set the priorities, tap **Excess Solar Priorities**.

You can enable or disable a device or set its priority by “dragging and dropping” the device above or below other devices.

### As an example:

Make the car a higher priority than the battery so that the car charges when you are at home, and you are going to use the car again soon. When you disconnect the car, or its battery is full, your home battery starts charging.



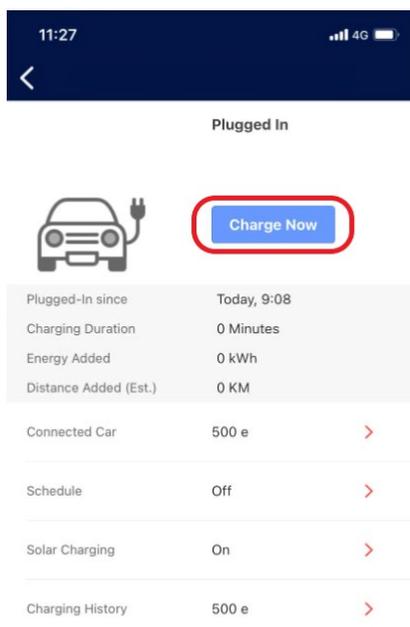
### IMPORTANT NOTE

When there is a grid outage, during backup conditions, the system might not be able to charge the car since EV charging might need more power than the Backup system can provide. This can cause your circuit breakers to trip due to overload.

## Set schedules

You can set charging schedules to charge your car at any time at full power within the constraints of the set import limitations. With **Excess PV enabled**, your car charges outside those scheduled times with the excess PV. Refer to Charging from Excess PV for more information.

You can charge your EV at any time by tapping **Charge Now** in the mySolarEdge App. Charging starts at full power within the constraints of the import limitation setting.



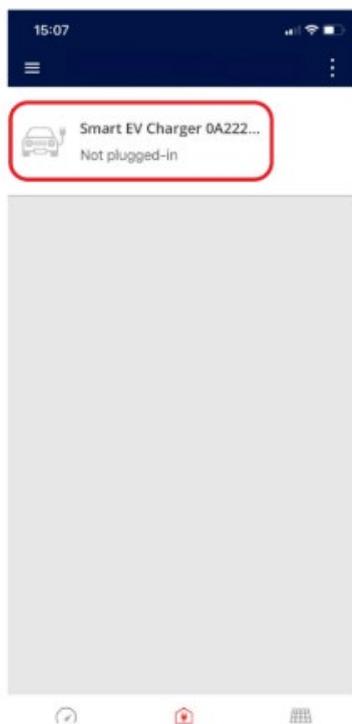
In mySolarEdge you can set up to four (4) schedules for automatic EV charging. During scheduled times, charging is done at full power within the constraints of the import limitations setting.

## To set charging schedules in mySolarEdge<sup>2</sup>:

1. In the main screen, tap the Smart Energy Icon.

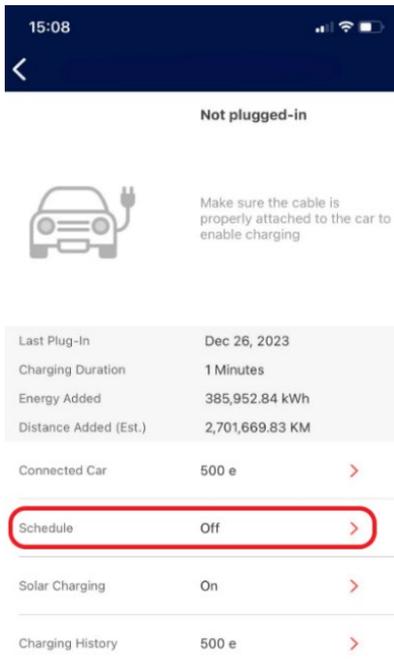


2. Tap the EV Charger device.

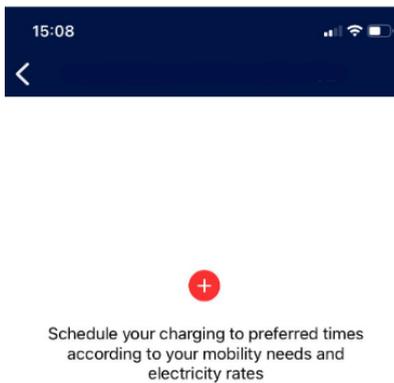


<sup>2</sup> The mySolarEdge display might look different depending on your installed devices and their settings

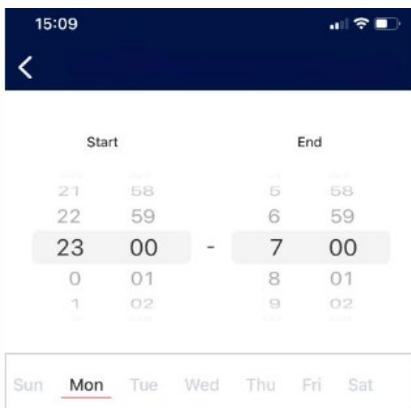
3. Tap Schedule.



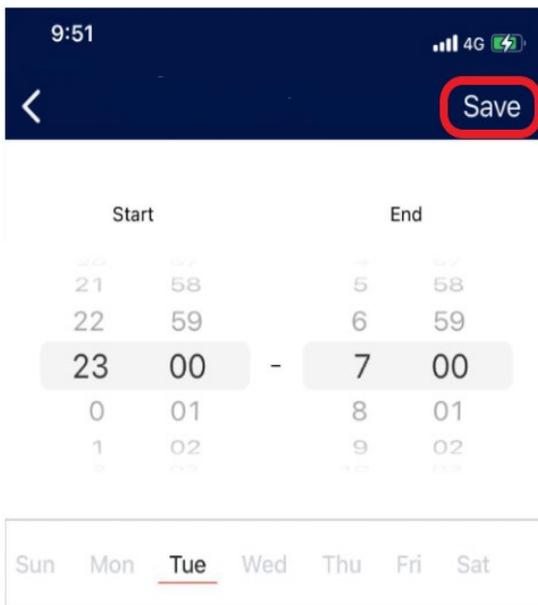
4. Tap .



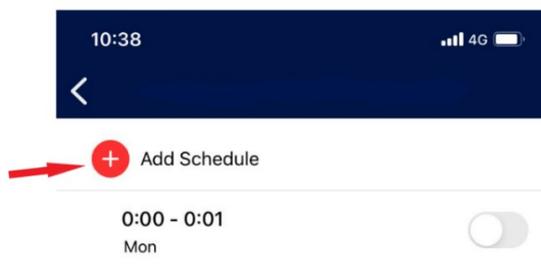
5. Set the day, start time, and end time for charging.



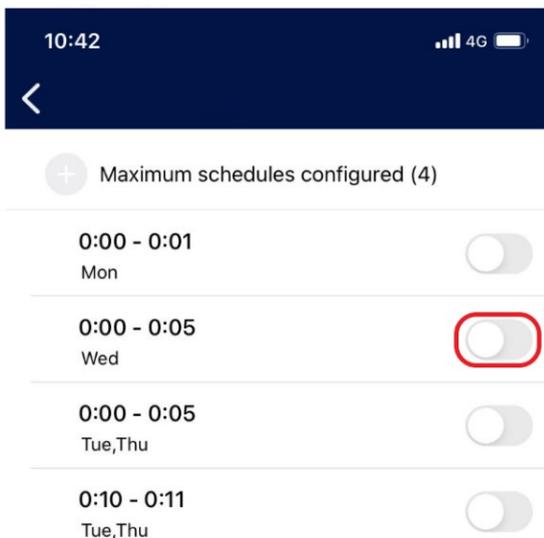
6. When done, tap **Save**.



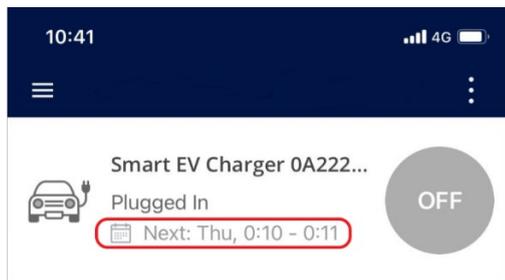
You can schedule up to four (4) different charging times per EV.



You can turn each specific scheduled period ON or OFF.



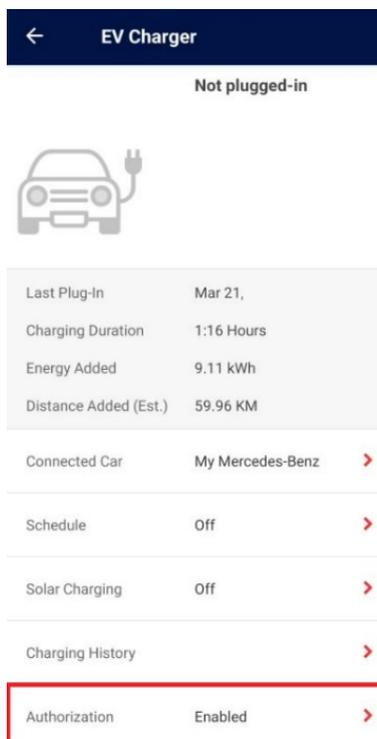
When a scheduled period is toggled ON, you can see the next scheduled charging time here:



## RFID authorization

This feature is supported in the RFID SolarEdge EV Charger variant. Using mySolarEdge you can activate RFID authorization which requires a user to scan an RFID card before charging can start.

In mySolarEdge you can manage accessibility and add, delete, or edit RFID cards. Up to ten (10) RFID cards can be used per EV charger. To enable or disable authorization, tap **Authorization** in the main menu.



When Authorization is disabled, the car charges automatically and the settings for scheduling and Excess PV are active.



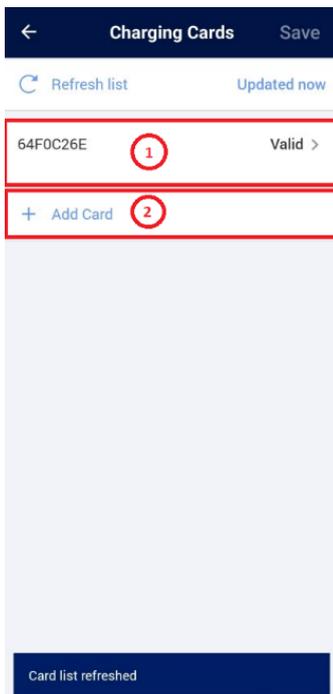
To manage charging cards, tap **Manage charging cards**.



The list of charging cards is refreshed automatically.

To update the card details, prolong the card's validation, block or delete a card, tap the card ID (1).

To add a new card using the EV Chargers RFID Module or the NFC Module on your phone<sup>3</sup>, tap **Add Card** (2).



<sup>3</sup> Only possible using Android phones with NFC functionality.



**IMPORTANT NOTE**

All screenshots shown are for illustration purposes only. Changes or differences in appearance can occur due to differences in SolarEdge systems, different Smartphones, or system updates.

## Charging history and reports

Using mySolarEdge, you can access your charging history and download reports in pdf or CSV formats. When more than one person has access to the EV Charger and authenticates with an RFID card, the report separates the information according to individual cards.

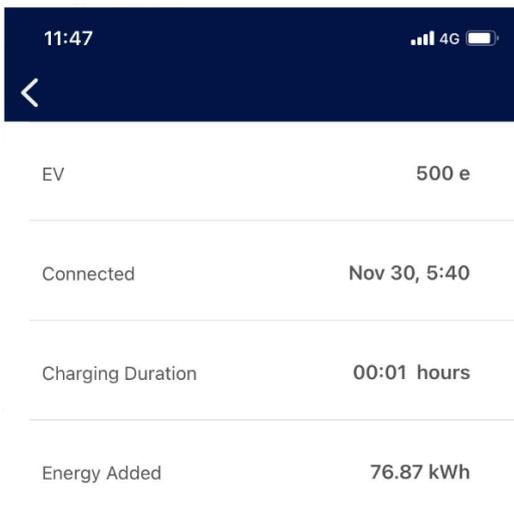
In mySolarEdge, in the EV Charger screen, tap **Charging History**.



You can choose to see charging history per week, per month, or per year. You can also choose to see the data based on energy in kWh supplied or the equivalent (estimated) km added.



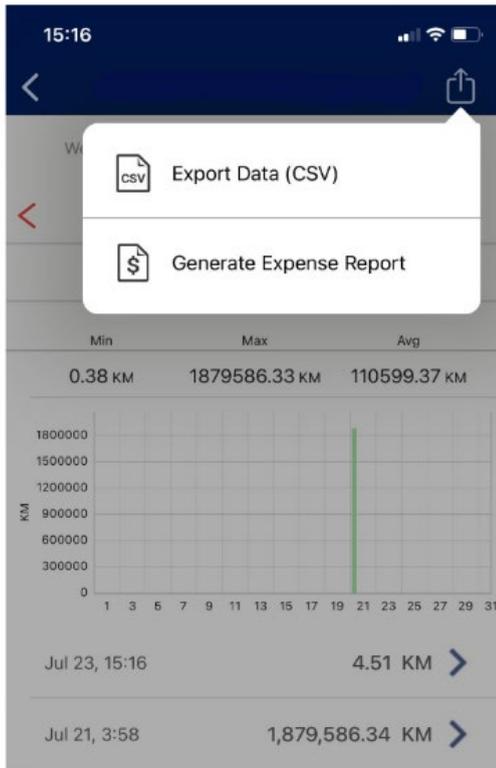
Tap a specific line in this screen to see details of that charging event.



EV	500 e
Connected	Nov 30, 5:40
Charging Duration	00:01 hours
Energy Added	76.87 kWh

You can export data to a csv file or generate an expense report as a pdf document. Tap .



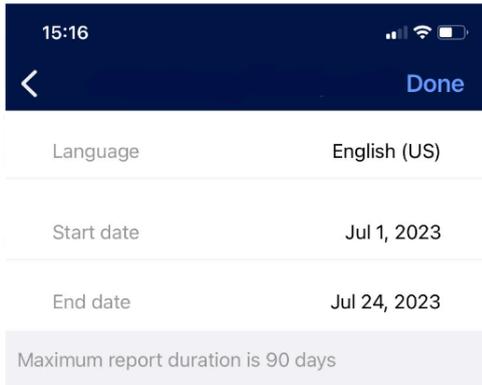


You can choose your preferred way to receive the files (eMail, WhatsApp; etc) or download it directly to your device.

A typical exported csv file is shown below

Date	Start time	Charging Duration	Energy Added	Distance Added	EV Name
23-Jul	15:16	25 Minutes	0.65 kWh	4.51 KM	500 e
15-Jul	21:54	4:02 Hours	11.41 kWh	79.84 KM	500 e
15-Jul	17:17	2 Minutes	0.07 kWh	0.45 KM	500 e
14-Jul	20:43	3:00 Hours	8.79 kWh	61.53 KM	500 e
13-Jul	9:17	1:34 Hours	4.26 kWh	29.82 KM	500 e
10-Jul	16:52	1 Minutes	0.06 kWh	0.39 KM	500 e
10-Jul	15:17	2 Minutes	0.08 kWh	0.5 KM	500 e
9-Jul	22:55	3:44 Hours	16.29 kWh	113.99 KM	500 e
9-Jul	12:20	57 Minutes	2.56 kWh	17.93 KM	500 e
8-Jul	20:12	2:06 Hours	9.43 kWh	65.97 KM	500 e
8-Jul	8:49	1:55 Hours	7.59 kWh	53.11 KM	500 e
4-Jul	13:06	9 Minutes	0.26 kWh	1.81 KM	500 e
2-Jul	18:59	40 Minutes	3.02 kWh	21.13 KM	500 e
1-Jul	23:18	4:44 Hours	20.65 kWh	144.52 KM	500 e
1-Jul	16:32	12 Minutes	0.44 kWh	3.04 KM	500 e
1-Jul	10:12	23 Minutes	0.65 kWh	4.55 KM	500 e

When you select **Generate Expense Report**, you can set your language, the start date for the report, and the end date for the report. You can get data for a period of up to 90 days in one report.



A typical exported pdf file is shown below:

### EV Charging Expense Report

Report issue date: Jul 14, 2022

Report period: Jul 01, 2022 - Jul 14, 2022

RFID E4B91325

Total energy charged (kWh): 0.0

Charging start time	Duration (Hrs)	Energy (kWh)
<b>Total energy charged</b>	00:00	0.0

No RFID Used

Total energy charged (kWh): 82.0

Total estimated cost: € 18.90

Charging start time	Duration (Hrs)	Energy (kWh)	Estimated cost (EUR)
Jul 02, 2022 13:27	02:45	14.8	3.4
Jul 03, 2022 13:26	00:37	2.9	0.7
Jul 07, 2022 11:10	03:27	19.4	4.5
Jul 08, 2022 12:23	21:03	19.0	4.4
Jul 11, 2022 17:35	14:06	25.9	5.9
<b>Total energy charged</b>	41:59	82.0	18.90