



EVA SOFT 2.0 OPERATIONS AND USER MANUAL

Dynamic load management system

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EU Regulation 2023/1542 concerning batteries and waste batteries requires that, from 18 February 2027, all products placed on the market incorporating portable batteries shall ensure that those batteries are readily removable and replaceable by the end-user at any time during the lifetime of the product. This requirement does not apply to this equipment (SACI_EVA) as it falls within the exceptions set out in Article 11(3) of Regulation (EU) 2023/1542, as clarified in Commission Notice C/2025/214, since it is a product whose main function is to collect and supply data and the purpose of the battery is to maintain the integrity of that data.

1.- Purpose and general software description

EVA SOFT 2.0 is an advanced dynamic power management system specifically designed for the efficient management of electric vehicle chargers. Its main objective is to optimize the distribution of electrical energy in charging stations, allowing the coexistence of chargers of different brands and charging modes in the same installation.

1.1. Dynamic Load Management (DLM)

- EVA SOFT 2.0 uses an intelligent algorithm to automatically adjust the power allocated to each charger in real time.
- The system considers current demand, energy availability and load priorities to ensure efficient distribution
- Self-consumption maximization strategies: when there is surplus PV power, it is allocated to electric chargers to make the most of renewable production

1.2. Charging priorities (VIP Charging)

- The system allows the configuration of customized priorities for chargers of up to four standards.
- Examples of prioritization criteria::
 - Urgent loading due to high turnover
 - Courtesy charging
 - Management vehicle
 - Fast charging need
- Flexibility in power allocation ensures an optimal and adaptable experience for every need.

1.3. Interoperability and OCPP Protocol

- EVA SOFT 2.0 integrates with chargers of any make and model, both AC and DC, which under the management of EVA SOFT 2.0, can coexist in the same installation thanks to the Open Charging Point Protocol (OCPP).
- EVA SOFT 2.0 has the ability to manage all the chargers that can be managed by Smart Charging through OCPP 1.6 J and 2.0.1
- Advantages:
 - Seamless communication between software and chargers.
 - Transversality: not limited to one specific manufacturer
 - Facilitates centralized management of multiple chargers in a single installation

1.4. On-site operation

- EVA SOFT 2.0 operates in local mode within the customer's internal network (LAN). However, it can be connected to third party backend systems for user management, payment validation and monitoring.
- Advantages:
 - Reliability: it does not depend on external services..
 - Strength: the server is within the infrastructure itself.
 - Cybersecurity: fewer points of vulnerability. It has as many firewalls as the client has within its internal network.

1.5. Use cases

- DC high power station as EMS:
 - DC high power station as energy management system.
 - Maximizing the use of photovoltaic energy to charge electric vehicles.
- Internet-free operation to maintain internal control.
- Industry with Electric Vehicle Chargers::
 - Correct maintenance for the power factor.

- Avoiding excess consumption and optimizing power distribution in industry.

2. Key functionalities

2.1 On-site operation

- EVA Soft 2.0 PRO operates in local mode within the customer's internal network (LAN). However, it can be connected to third party backend systems for user management, payment validation and monitoring.
- Advantages:
 - Reliability: it does not depend on external services..
 - Strength: the server is within the infrastructure itself.
 - Cybersecurity: fewer points of vulnerability. It has as many firewalls as the client has within its internal network.

2.2 Interoperability and OCPP Protocol

- EVA Soft 2.0 PRO integrates with any make and model of charger
- Uses Open Charging Point Protocol (OCPP) for communication
- Facilitates the centralized management of multiple chargers in a single installation

2.3. Integration with chargers, payment terminals and backend systems via OCPP

EVA Soft 2.0 PRO integrates via Modbus to the various network resources (Inverter, Energy Meter, batteries, etc.) while using the OCPP link to communicate with the chargers in a transversal way but also with all the systems that need to monitor them, acting as a bridge to link with third party backend, BMS or with physical payment platforms.

The OCPP 1.6J and 2.0.1 protocol allows us to dialogue with the chargers in a unique language and tell them what and how to perform correctly according to the recharge strategy designed by the user through the installer.

2.4. Dynamic Load Management (DLM)

Algorithm that automatically adjusts the power assigned to each charger according to power demand and availability.

- Algorithm constantly monitors load demand and power availability.
- Dynamically adjusts the power assigned to each charger according to the current needs.
- Avoids overloads and ensures an equitable distribution of energy.

Strategies to maximize self-consumption using surplus photovoltaic energy:

- When there is surplus photovoltaic energy (produced by solar panels), EVA Soft 2.0 PRO redirects this energy to electric vehicle chargers
- Vehicles charge using clean, renewable energy, reducing dependence on the conventional electrical grid.

2.5. Charging priorities (VIP Charging)

Priorities configuration according to customizable criteria (arrival order, level of need, etc.):

- EVA Soft 2.0 PRO allows to assign priorities to the vehicles according to the customer's preferred criteria, offering 4 scenarios for this priority that can be configured with respect to the percentage to be assigned to each priority.
- Flexibility associated with the configuration
- The system adapts the powers assigned to the chargers according to the established priorities.

- Ensures an optimal user experience, according to their own allocation criteria and efficient energy management.

2.6 User session management

The user manager for electric vehicle charging facilitates administrative control of chargers, optimizes economic management and provides remote access to data, all with the goal of maximizing efficiency and economic benefit for charger owners.

Role of the user manager and its features:

- A user manager for electric vehicle charging is a platform that allows the administration and control of charging stations in an efficient and accessible way. This system is designed for owners of parking lots or buildings with chargers, allowing them to manage these resources and obtain an economic benefit. Its main features and functions are detailed below:

1. Administrative control of shippers::

- Local management of charging stations
- Creation and administration of users
- Monitoring of each user's energy consumption
- Data export and reporting on usage and consumption.

2. Invoicing and Financial Management:

- Possibility for billing users based on the level of energy consumed
- Tools for calculating and managing revenues from the use of chargers

3. Remote Access and Online Management:

- Access to data and control of charging stations from anywhere through an online portal.
- Data download and remote management for easy administration from any location.

4. Future Functionalities:

- Implementation of automatic payments by physical card or POS (coming soon).

3. Safety and Maintenance

3.1 Offline operation in the cloud

Advantages of operating in local mode: reliability, robustness and cybersecurity.

- Reliability: EVA Soft 2.0 PRO does not depend on external services or cloud connections. This guarantees its operation even in situations of internet outage.
- Strength: Being inside the client's local infrastructure, the EVA Soft 2.0 PRO server is more resistant to external failures..
- Cybersecurity: By minimizing access points to the global network, exposure to potential vulnerabilities is reduced.

Minimization of latency and connection loss when using a wired connection. From EVA Soft 2.0 PRO we are committed to the development of the energy transition in a professional and normative way, and above all, meeting the functional needs that occur in the installations. The software was conceived in the light of offering a reliable and transversal tool that allows the installer to develop and add value to his service. That is why, when we talk about a local solution, we talk about having a physical link within the LAN network, defined by a UTP category 6 cable that allows a data transfer and a known and reliable standardized development speed. Cloud services from our point of view are fine, but we must rely on the speed of the message we send and the importance of its content. All this is usually entrusted

to companies that have agreed error rates in their SLAs, so we depend on this third party service provider that connects us to our Backend Cloud.

4. What is the architecture of the EVA?

To understand how EVA Soft 2.0 PRO works, it is essential to know its structure and component parts. Below is an overview of the three main components:

4.1 EVA Solution

The “Core Solution” is the core of the software. Its key functions are:

- Process and manage OCPP requests coming from electric chargers.
- Generate simulated instances of chargers to facilitate development and practical demonstrations.
- Provide services to the user interface for its correct operation.

4.2 EVA Algorithm

Our patented algorithm is the brain behind EVA Soft 2.0 PRO. Its responsibilities are:

- Determine what load to assign to each electric vehicle and at what power.
- Communicate directly with the Core Solution to instruct the OCPP server on the power to supply to each charging point.

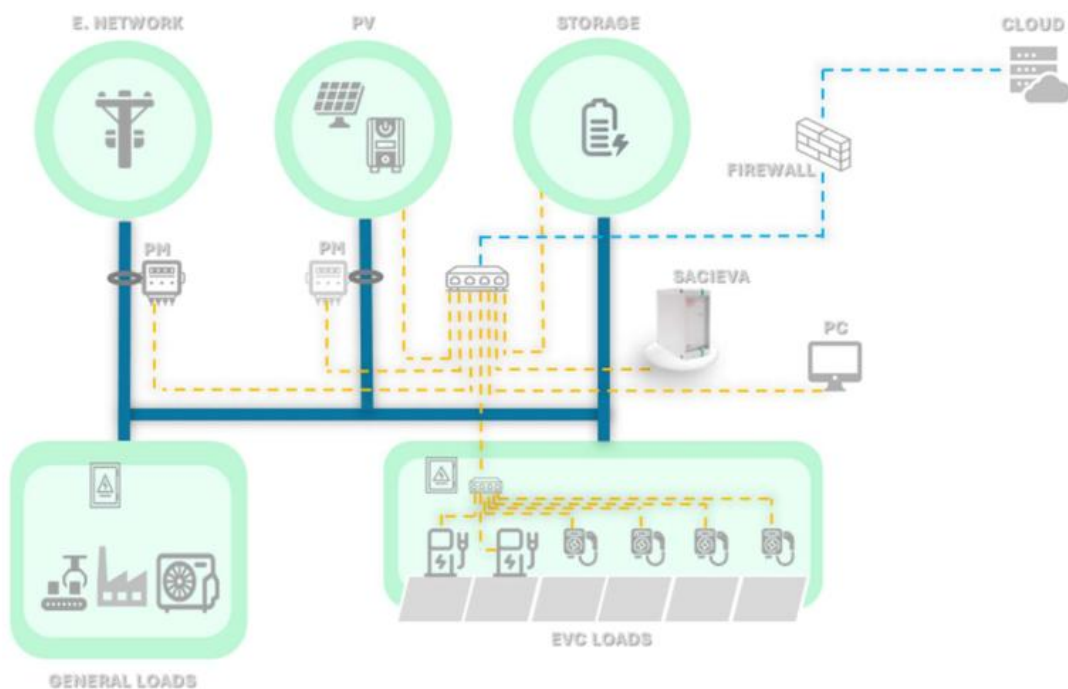
4.3 EVA Dashboard

The web-based user interface, known as the “EVA Dashboard”, provides an intuitive and user-friendly experience. Its features include:

- Direct connection to the Core Solution
- Tasks such as installing loaders, configuring specific settings, and viewing detailed network metrics.
- Functional tabs
- Dashboard (Main): Charger management with standardized colors for significant events.

- Metrics: Track metrics from EVA Solution and EVA Algorithm.
- Energy Interaction: Real-time information on consumption, PV generation and PowerMeters simulation.
- History: Logging of OCPP requests for tracking and error detection.
- Configurations: Setting of limits for the management of chargers by the EVA Algorithm.

4.4 EVA architecture



As can be seen, the EVA is the brain of the installation where two network analyzers (the photovoltaic one is optional) feed it with data in real time via Modbus TCP/IP and Ethernet connection so that it can make the best decision for the management of the recharge.

The EVA, the network analyzers and the chargers must always be on the same network or it will not work.

4.5 What does the EVA consist of?

The EVA software runs on hardware designed by SACI (Sociedad Anónima de Construcciones Industriales <https://www.saci.es/>) :



This hardware includes an enclosure designed for DIN rail (not DIN rail at the bottom of the mounting plate but standard DIN rail) with the possibility to install it in any type of electrical panel without having problems of depth and with measures of 145mm high, 125mm wide and 81mm deep (including DIN rail adapter).

The electronic board is powered directly at 230V AC 50Hz +/- 5% with a power consumption of 0.5A and allows, also, to be installed in countries such as UK or USA since the power supply is self-regulating. The hardware has two Ethernet ports, a serial port, Wifi, Bluetooth and a CPU with the following characteristics::

- Quad-core Cortex-A53 a 1,4 GHz
- 400MHz Cortex-M4F and 333MHz real-time PRU co-processors

- 3D GPU graphics acceleration
- Up to 4 GB of DDR4 memory and up to 128 GB of eMMC storage

4.6 How does the EVA get data for the management of the recharge?

There are two ways to collect data. The first one uses two SACI TCIL2-TCP network analyzers where one of them, installed at the connection, gives the information of the total consumption of the installation in real time through Modbus TCP/IP and Ethernet port. In turn, if the building has a photovoltaic installation, another network analyzer installed at the inverter output will provide the photovoltaic generation data:



The second, following the same scheme described above, is to use the SACI SAM3001 analyzer, but in this case, instead of Modbus TCP/IP it would be Modbus RTU:



As a technical advice in the execution of the electrical installation, if the installation is already existing and the charging infrastructure is added, we recommend the TCIL2-TCP since they are installed in the CGBT and the data is sent by data cable (minimum cat. 5e) to the EVA. On the other hand, if an installation is carried out where the recharging infrastructure is a single supply and the measurements are taken in the same place as where the EVA is installed, the SAM3001 is sufficient.

5. Installation and first configuration

5.1 Prerequisites

5.1.1 Verification of existing electrical infrastructure and capacity of electrical panels

The installer must know and record in the software an electrical description of the customer's network, both in its design and factual aspects. That is to say, as it was thought and as it is realized.

5.1.2 *Availability of a local area network (LAN) for installation and IP assignments*

As with any infrastructure within a LAN type network, EVA Soft 2.0 PRO does not escape its principles and therefore needs to know the IP assignment of each network element that is to form a resource used for the management or control of the DLM. In many cases, the subnet mask, gateways and DNS servers of the system are also required.

5.1.3 *Connection of SACI energy meters*

The system measures electrical occurrences through SACI energy meters, one of which must be associated with the main input and the other with the production of the renewable resource. Both are of indirect measurement, so they must be associated to the corresponding measurement transformers and must be connected to the LAN network with its designated IP.

5.2 Installation steps

5.2.1 *Installation of the mini PC in the local network*

The EVA Soft 2.0 PRO mini PC and brain is designed to be DIN rail mounted on a standard electrical panel.

5.2.2 *Configuration of each charger to EVA Soft*

All the chargers that the EVA Soft 2.0 PRO must be intervened in the system configuration, activating the control via OCPP so that the Smart Charging system is ready to operate, it is important to place in the charger the IP address or link to where it must be directed or linked to be managed, from where it will receive the orders.

5.2.3. *Initial parameter configuration: maximum power, modes, etc.*

Once all the resources related to EVA Soft have been linked, it will be necessary to perform the initial configuration of the system.

5.2.4. Creation of charging points.

Within the main dashboard it is very simple and intuitive to create a charging point. You can do it with a button and it will open a drop-down menu where you will be asked for brand, model, power, if it is three-phase or single-phase and all the data of that charging point including the ID. With this the system will generate a graphic that integrates the logo of the brand, the status and basic information and by clicking on it you will be able to acquire more information about it.

6. First configuration of EVA Soft 2.0 PRO software

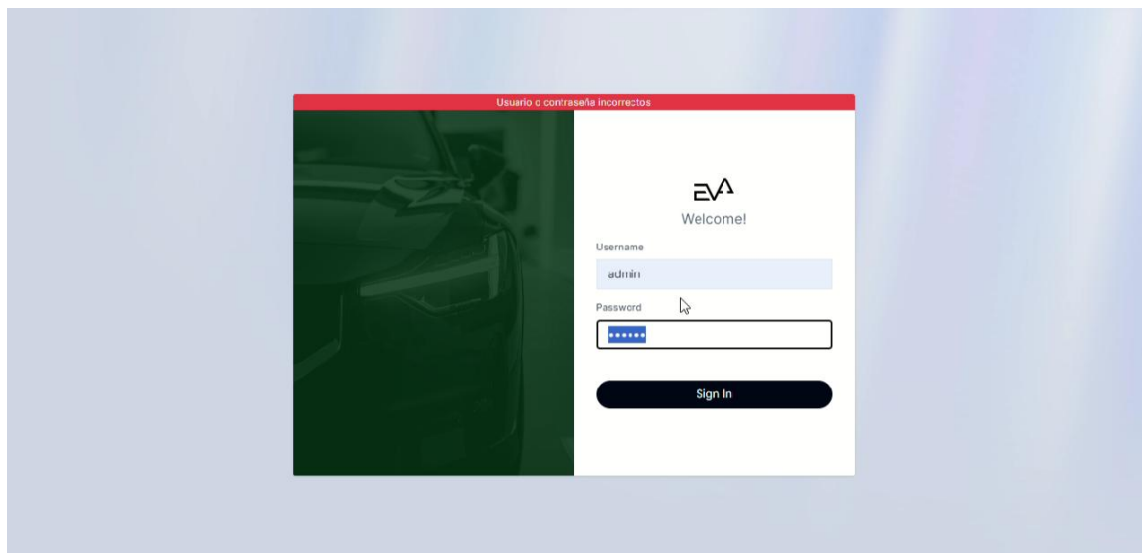
6.1. Introduction

Welcome to EVA Soft, the intelligent energy manager for electric vehicle chargers. This application will guide you in optimizing the energy supply at your charging stations. With some initial configurations, EVA Soft will learn about your infrastructure and effectively control the energy flow. Although all configurations can be modified later on, it is important to make sure that everything is correct from the beginning. So, let's demonstrate!

6.2. Login

First of all you must enter the system with your username and password where by default for EVA Soft 2.0 PRO is : User: Admin / Password:1234.

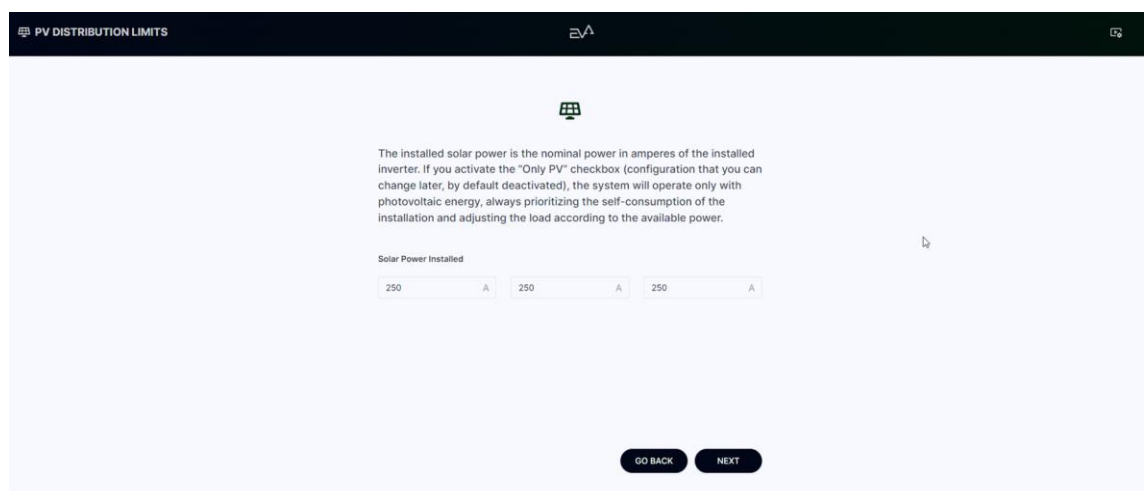
Also here is where you have your chance to select the language of your choice:



Video help in your language:



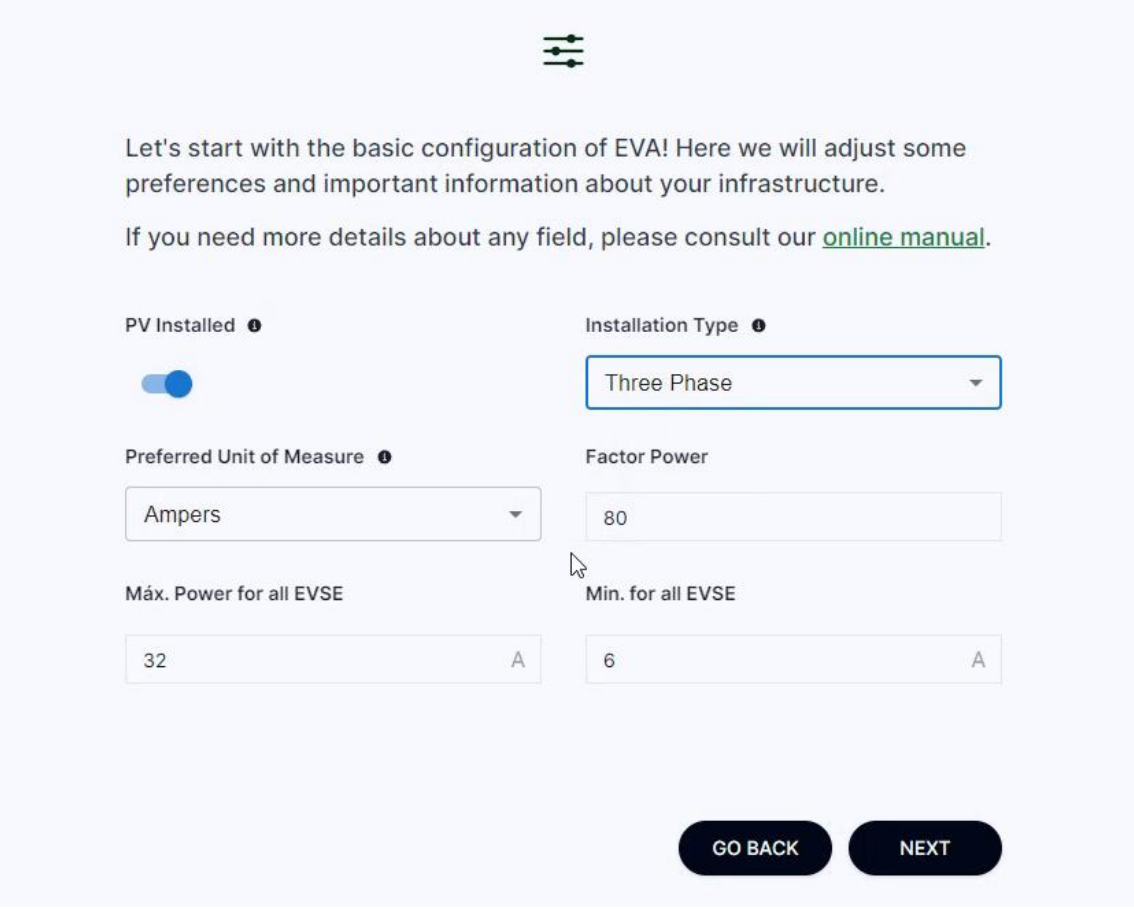
In the upper right margin you will find on each page of the settings stage a video tutorial icon in which you will find an explanation of what and why you are asked to provide the data for the initial setting. On this way, with videos of less than 40 seconds you will be able to reinforce your knowledge and have Julia tell you what each topic is about.



6.3. Basic configuration

In this section we will adjust some preferences and important information about your infrastructure and energy strategy. Make sure you enter all the data correctly, as it will be essential for EVA Soft to work.

1. **Photovoltaic Energy:** Indicate if you have photovoltaic energy installed.
2. **Type of electrical installation:** Select whether your electrical installation is single-phase or three-phase..
3. **Display unit:** Choose whether you want to view the board in Amps or Watts.
4. **Power Factor:** If you know the power factor of your installation, enter it here.
5. **Charger limitation:** Define if you want to set a maximum and minimum scale for any charger of your installation.



The image shows a web-based configuration form for EVA Soft. At the top, there is a hamburger menu icon. Below it, a heading reads: "Let's start with the basic configuration of EVA! Here we will adjust some preferences and important information about your infrastructure." followed by a link to the "online manual". The form is divided into two columns. The left column contains: "PV Installed" (a toggle switch that is turned on), "Preferred Unit of Measure" (a dropdown menu set to "Amps"), and "Máx. Power for all EVSE" (a text input field with "32" and a unit "A" dropdown). The right column contains: "Installation Type" (a dropdown menu set to "Three Phase"), "Factor Power" (a text input field with "80"), and "Min. for all EVSE" (a text input field with "6" and a unit "A" dropdown). At the bottom right, there are two dark blue buttons labeled "GO BACK" and "NEXT".

Let's start with the basic configuration of EVA! Here we will adjust some preferences and important information about your infrastructure.

If you need more details about any field, please consult our [online manual](#).

PV Installed ⓘ

☒

Installation Type ⓘ

Three Phase ▼

Preferred Unit of Measure ⓘ

Amps ▼

Factor Power

80

Máx. Power for all EVSE

32 A

Min. for all EVSE

6 A

GO BACK NEXT

6.4. Communication

It is very important that EVA Soft is well connected. EVA Soft will ask for a maximum of 3 addresses:

1. **Power meter address:** This address informs EVA Soft about the amount of energy flowing from the public grid to the installation.
2. **Photovoltaic system energy meter address:** If you have photovoltaic energy, provide the address of the associated meter.
3. **Third party backend URL:** Defines the address of the user area that handles administrative issues such as billing and recharge authorization.

ENDPOINTS

Configure the necessary URLs to connect with the energy meters and any third-party backend that authenticates your chargers, if applicable. If you do not have or do not wish to configure this, you can use our default backend.

If you do not know the address of your energy meters, please do not proceed with the configuration until you have it.

Building Power Meter
ip specific

PV Power Meter

Third Party URL

GO BACK NEXT

The address format must be like this example: 192.168.1.150:502. It is of utmost importance “:502” since it is the port through which the energy meter communicates via TCP, otherwise the EVA will not be able to read the data sent to it. The configuration is exactly the same for both the energy meter of the service connection and the photovoltaic one, taking into account that they have different IPs.

6.5 Power management system configuration

If we want the power management system work properly, it is crucial to define three essential elements::

1. **Maximum main breaker power:** Specify the maximum power supported by your main breaker.
2. **Maximum power of the electrical panel:** Indicates the maximum power for which your electrical panel is designed for electric vehicle charging.
3. **Real Load Connected:** Provides the actual load connected to the electrical panel

These parameters will protect your installation from overloads and define the maximum power that EVA Soft can handle.

DISTRIBUTION LIMITS

EVA

Configuring the limits is one of the most important parts of our application, as it defines how our algorithm optimizes energy. We recommend taking a moment to thoroughly understand each field below, as this is one of the key configurations for the operation of our system.



Main distribution limit

A



EVSE Sub-Distribution Limit

A



Operator EVSE Sub-Distribution Limit

A

GO BACK

NEXT

6.6. Photovoltaic Energy Configuration

It is important to define the maximum power of your photovoltaic plant in amperes. Enter the corresponding data and press continue:

The installed solar power is the nominal power in amperes of the installed inverter. If you activate the "Only PV" checkbox (configuration that you can change later, by default deactivated), the system will operate only with photovoltaic energy, always prioritizing the self-consumption of the installation and adjusting the load according to the available power.

Solar Power Installed

[GO BACK](#)[NEXT](#)

6.7. Charging Priority Setting

Charging priorities will assign a higher or lower priority to a charger or a user according to the parameters you define:

1. **Parking time:** Defines the priority according to the parking time designed for each parking space or user.
2. **Low priority:** Assigns low priority to a courtesy parking space.
3. **Shortest time users:** Gives priority to those users who require less loading time.

Configure the percentage of power assigned to a charger based on its priority here.

For example, if an AC charger needs 10 amps and its priority is medium, a percentage value of '90' in 'medium' will cause it to receive only 90% of those 10 amps. Charging priorities are useful for managing different power levels in similar chargers. We recommend keeping the default values.

High	Medium	Low	Very Low
90 %	90 %	60 %	20 %

[GO BACK](#)[NEXT](#)

6.8. Successful configuration

This last step allows you to print the complete report with all the settings made and to log in to the system.

CONTACT

EV^Δ

We want our users to feel at ease when using our system. Therefore, we request the contact details of the person in charge of the installation to keep them informed about its status. We will send useful information about the system's status, the chargers, and the installation in general via email. These details will only be used for contact purposes.

Operator Name ●

Operator Mail ●

Owner Properti I

johndoe@evasoft.com

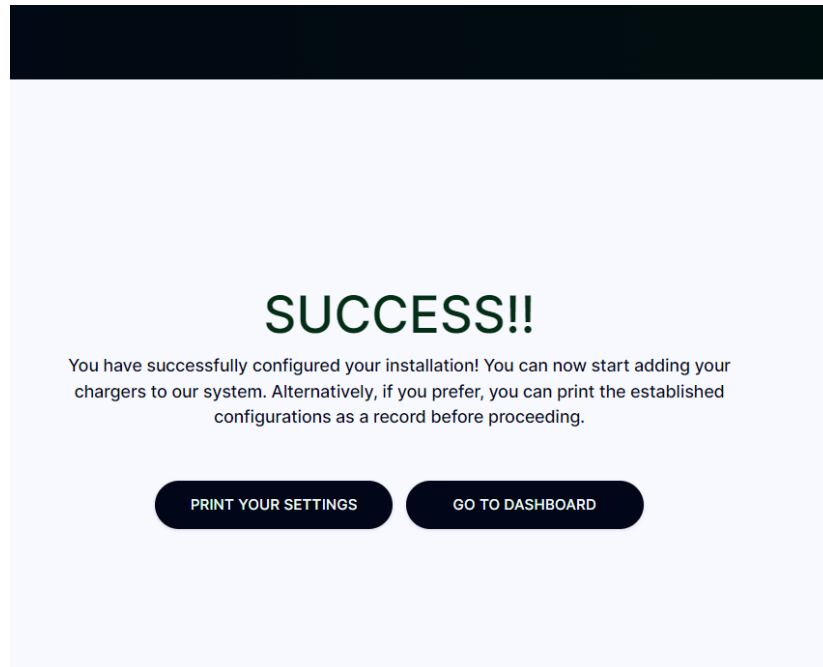
Configured By ●

Jhon Doe

GO BACK

FINISH

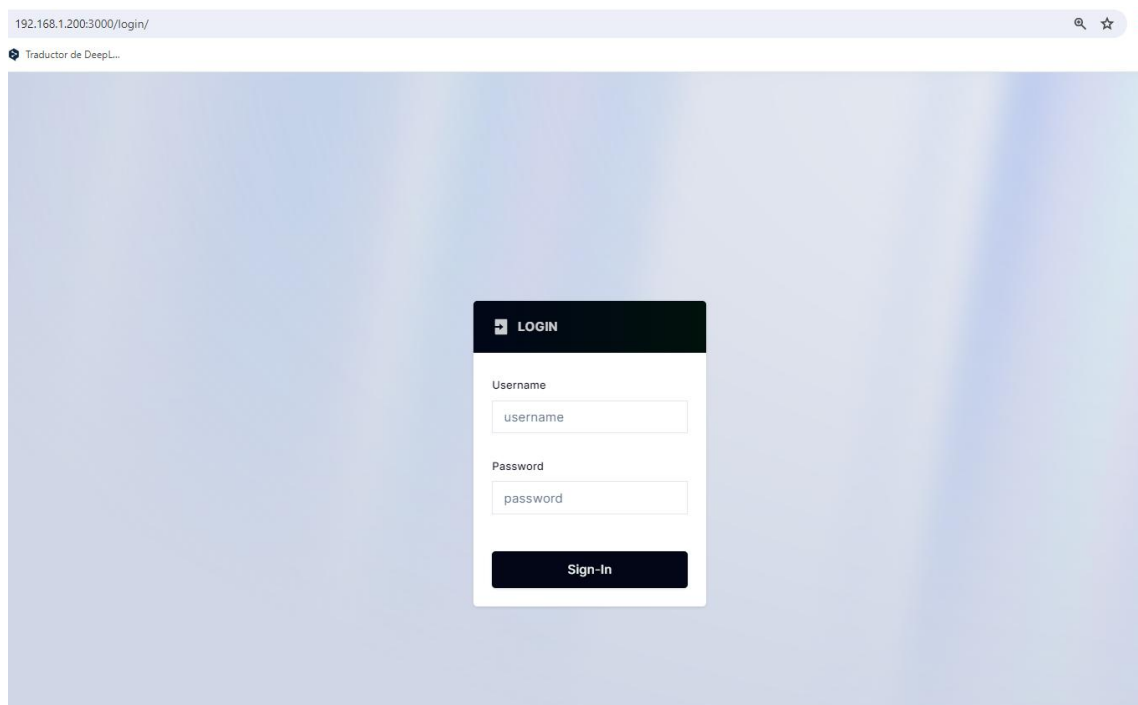
Finally, if everything is correct, a screen like the one shown below will appear indicating that the configuration has been successful:



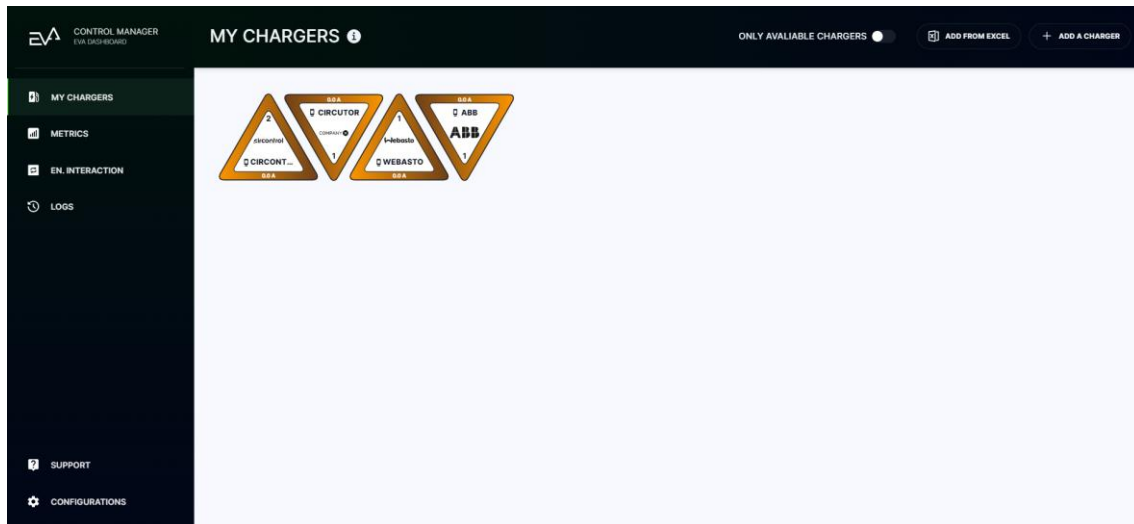
7. How does EVA work?

7.1. Login and first steps

To access the dashboard, we will open any browser we have on the PC and enter the IP that has been assigned to the EVA as the following example: 192.168.0.169:3000. It is of vital importance to respect “:3000” since it is the port through which the EVA Soft 2.0 communicates. Once inside, a Login screen will appear as the following one where we will be asked for the necessary credentials to access:

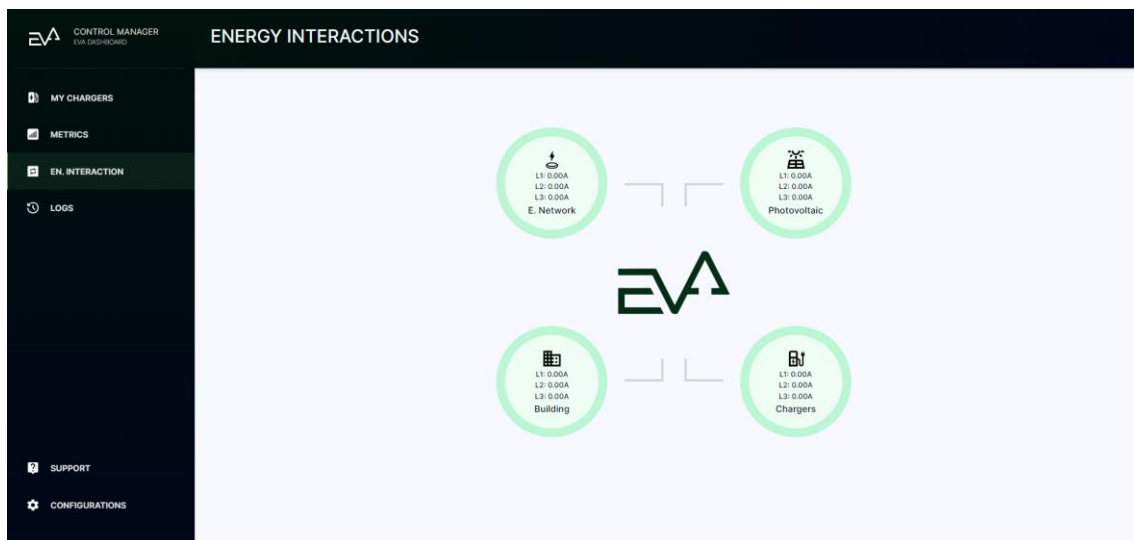


Once accessed, the first screen that appears is the dashboard of the installed chargers from the “My chargers” menu:



7.2 Energy Interaction

As you can see, there is a series of menus both on the left and on the upper right side of the screen. If you click on the “En. Interaction” menu, the following screen will appear:



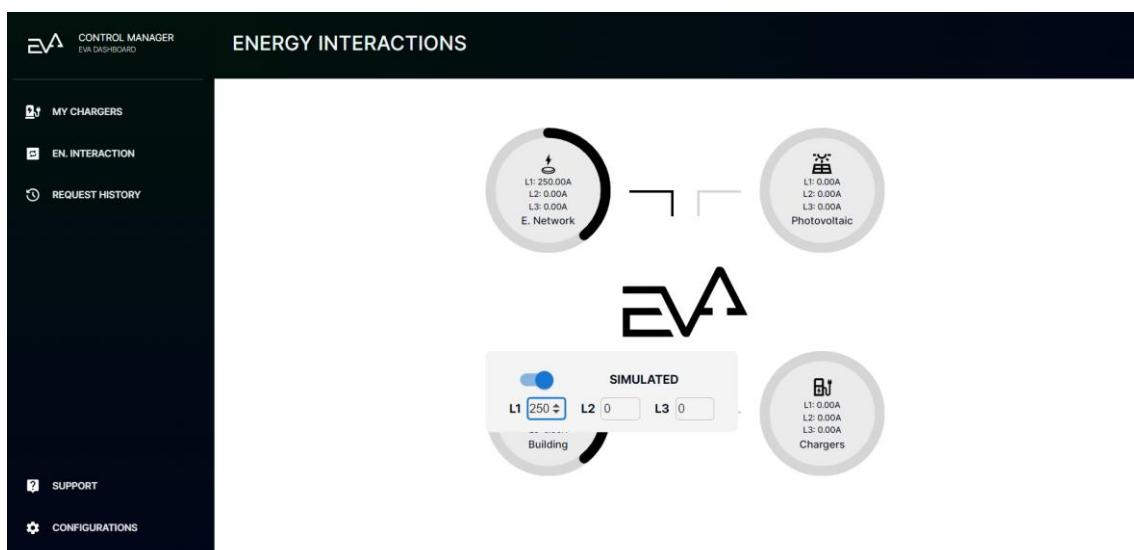
This screen reports the energy interaction of the installation and how the consumption of the installation influences the recharging of the vehicles. The screen is fed with data from 2 network analyzers installed in the connection of the installation as in the input of the photovoltaic energy in the installation. In this way, and always prioritizing self-consumption in the installation, the EVA decides

what energy is necessary to take from the grid to supply the needs of the installation and the charging infrastructure. However, if it is decided to charge only with photovoltaic energy, the system will act in the same way but without taking energy from the grid.

The EVA is prepared to make simulations of charging and photovoltaic generation so you can test the performance of the installation to be carried out prior to starting the project. To do this, just place the cursor over “Building” or “Photovoltaic” and activate the “Simulated” option:



Once activated, the value to be simulated is entered in the slot next to L1, L2 and L3 and the system will simulate it automatically:

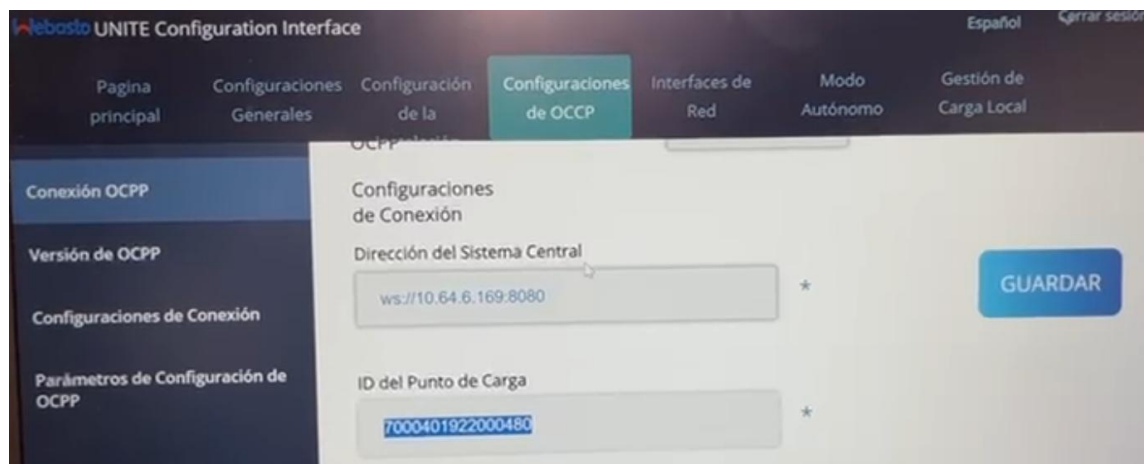


Remember to be very careful with this simulation feature because if it is left activated it will not take into account the values of the energy meters and, therefore, the system will not work correctly and will certainly cause overload problems.

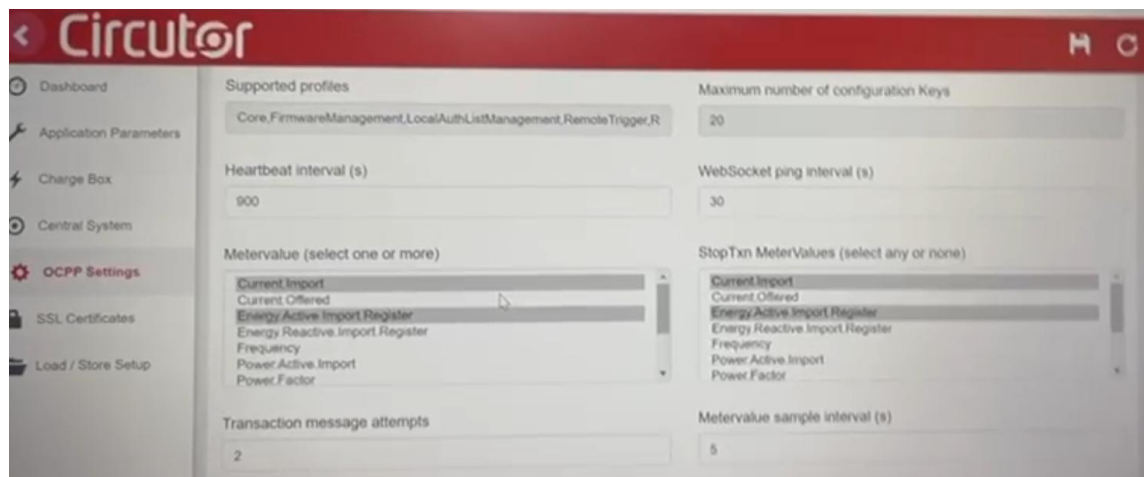
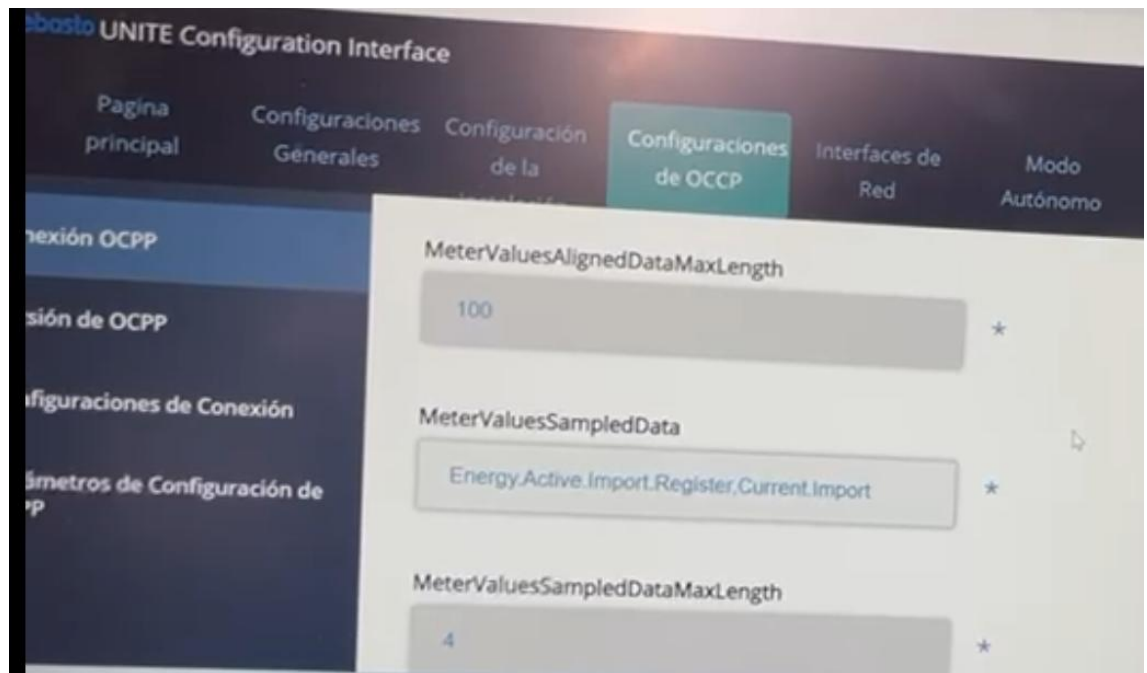
7.3 How to add chargers?

For adding chargers, they must first be set to be able to connect the EVA Soft 2.0. To do this, it is necessary to access the charger settings and make the following adjustments::

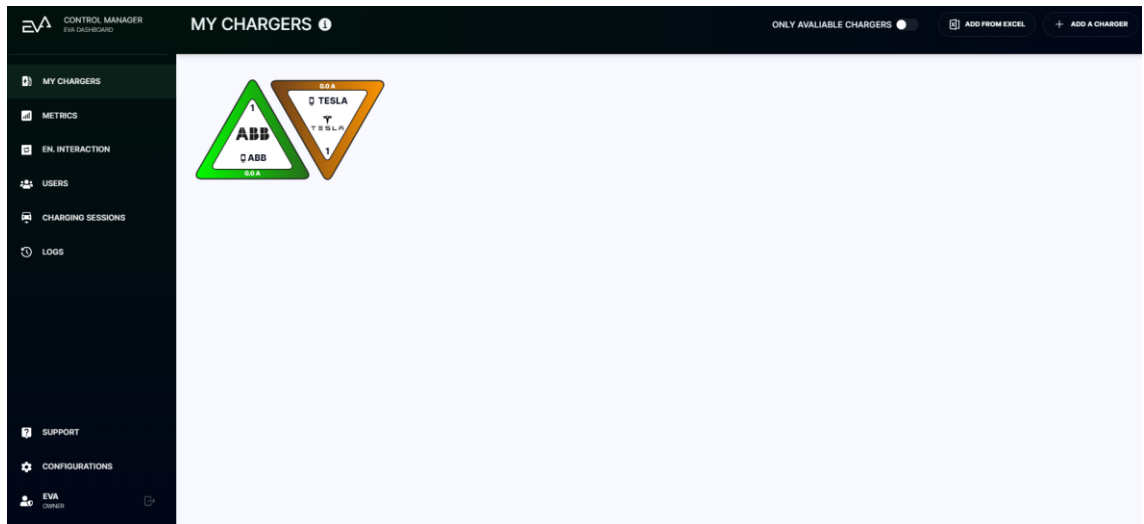
- Modify IP to be in the same range of the EVA Soft 2.0
- Change the OCPP connection URL to connect to the EVA Soft 2.0 such as “ ws://192.168.0.150:8080 ” where the numbers is the IP assigned to the EVA Soft 2.0. Below is an example of a setting in Webasto's Unite loader:



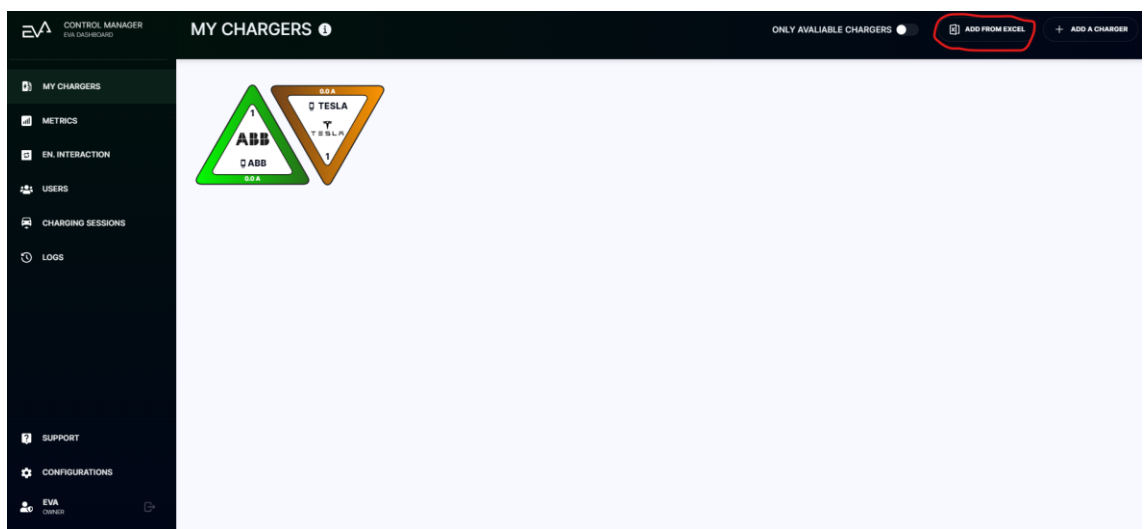
- Change the ChargerID of the charger to the one requested.
- Check that the charger sends the “Energy.Active.Register.Import” and “Current.Import” commands of the OCPP command “Meter values” and set the refresh of this command to 30s. The following are examples of settings on Webasto Unite and Circutor ePark chargers:



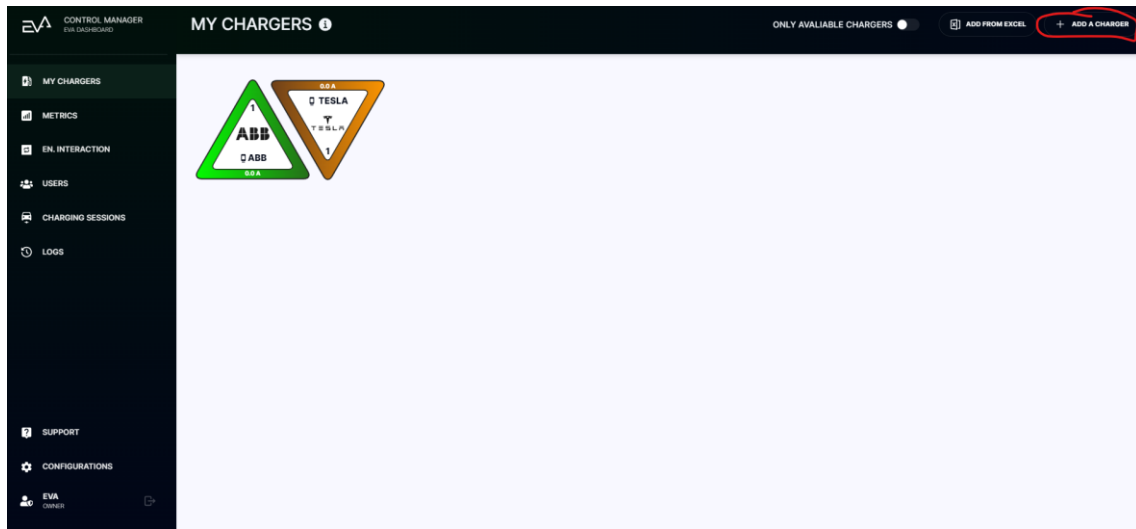
Once the chargers have been set, again in the EVA, access the “My chargers” menu:



To add chargers to the system there are two methods which are via Dashboard and one at a time (detailed below) or, via importing an Excel file where, once imported, all the loaders already adjusted as indicated in the file will appear. For this purpose, the Grid-Code team provides a template for adjusting the necessary data. Note that if the template is modified, for example by adding columns, the system will not take these changes into account. To import, click on the upper right-hand side of the screen and select the file where it is saved on the PC:



If you choose to add the chargers manually and one at a time, click on “Add chargers” at the top right:



Once clicked, you will access the following menu:

ONLY AVAILABLE

ADD CHARGER

Charger name is required

IDENTIFICATION DATA

Name ⁱ
Ej: Parking N°1

ID ⁱ Vendor
Ej: P01 Ej: Tesla

Model Serial
Ej: T0123 Ej: T12486512

SPECIFICATIONS

Connector Type Efficiency ⁱ
DC 80

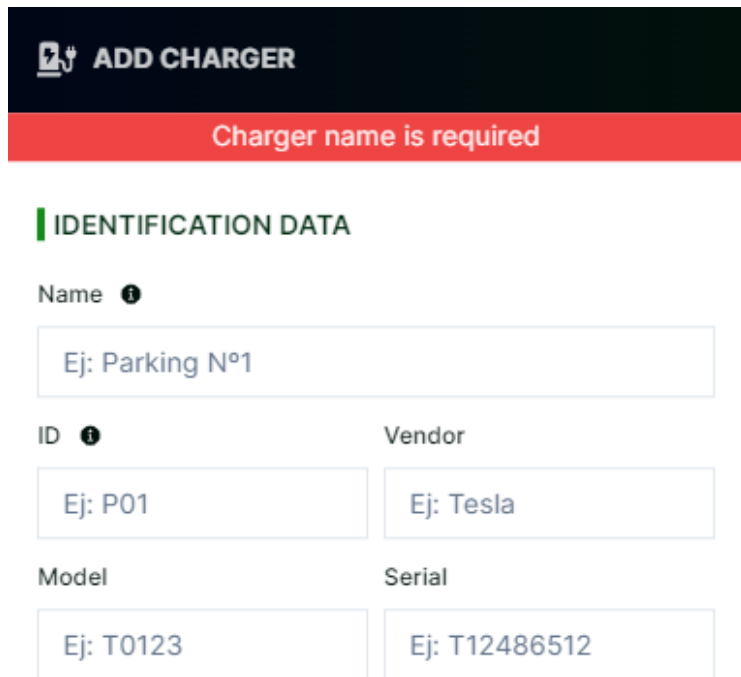
Charger Power OCPP Version
3,7 1.6

Single-phase config. Priority
L1 High

Multiconector Connector ID
☐ Yes ☒ No 0

Cancel Add

This menu defines all the necessary aspects for a charger, whether AC or DC, to be properly managed by the EVA. The first data to be filled in are those related to the identification of the charger itself:



The screenshot shows a web interface for adding a charger. At the top is a dark blue header with a plug icon and the text 'ADD CHARGER'. Below the header is a red error banner that reads 'Charger name is required'. Underneath is a section titled 'IDENTIFICATION DATA' with a green vertical bar to its left. This section contains five input fields arranged in three rows. The first row has a single field for 'Name' with the placeholder text 'Ej: Parking N°1'. The second row has two fields: 'ID' with placeholder 'Ej: P01' and 'Vendor' with placeholder 'Ej: Tesla'. The third row has two fields: 'Model' with placeholder 'Ej: T0123' and 'Serial' with placeholder 'Ej: T12486512'. Each field label has a small information icon (i) next to it.

IDENTIFICATION DATA	
Name	Ej: Parking N°1
ID	Ej: P01
Vendor	Ej: Tesla
Model	Ej: T0123
Serial	Ej: T12486512

- Name: Here we will write the name we want to give to the loader. For example “loader square 1”.
- ID: The ID of the charger is the identifier of the charger to the EVA and that, previously, the charger itself, either by its own webserver or manufacturer's App, must be set and be exactly the same or, otherwise, the charger will appear as disconnected in the EVA dashboard.
- Vendor: Indicate the manufacturer of the charger, e.g. Webasto.
- Model: Relevant model of the charger, e.g. Webasto UNITE.
- Serial: Charger serial number.

Regarding the ID, note that although it is usually a field that can be edited, there are several manufacturers that do not allow this, and the ID is the charger's serial number, for example, the Webasto NEXT or the ABB Terra AC.

Once the fields for the charger's identifying information are filled in, we focus on the technical details. In 'Voltage', we will choose between AC or DC depending on the type of charger we have:

SPECIFICATIONS

Conector Type	Charger Type
AC	Single-Phase
DC	OCPP Version
AC	1.6
Single-phase config.	Priority
L1	High
Multiconector	Connector ID
☐ Yes ☒ No	0

In the next step, it is necessary define if the charger is for one or thre phases:

SPECIFICATIONS

Conector Type	Charger Type
AC	Single-Phase
Charger Power	Single-Phase
3.7 KW	Three-Phase
Single-phase config.	High
L1	High
Multiconector	Connector ID
☐ Yes ☒ No	0

Depending on the choice, in the “Charger Power” option we will find the corresponding power ratings, i.e. 3.7 or 7.4kW for single-phase installations or 11 and 22kW for three-phase installations::

SPECIFICATIONS

Conector Type	Charger Type
AC	Single-Phase
Charger Power	OCPP Version
3.7 KW	1.6
Charger Power	Priority
3.7 KW ✓	High
7.4 KW	Connector ID
☐ Yes ☒ No	0

SPECIFICATIONS

Conector Type	Charger Type
AC	Three-Phase
Charger Power	OCPP Version
12 KW	1.6
Charger Power	Priority
11 KW	High
12 KW ✓	Connector ID
☐ Yes ☒ No	0

Once the power is defined, it must be configured in which phase or phases and how they are connected to the charger. In this way, we are indicating to the EVA which phase rotation has the charger. Remember that they must be physically wired like this in the charger and that the electrical panel must be properly wired in the same way or the balance will not be 100% effective:

SPECIFICATIONS

Connector Type	Charger Type
AC	Single-Phase
Charger Power	OCPP Version
7.4 KW	1.6
Single-phase config.	Priority
	High

Configuration
L1
L2
L3

Connector ID
0

Cancel Add

SPECIFICATIONS

Connector Type	Charger Type
AC	Three-Phase
Charger Power	OCPP Version
	1.6
Three-phase config.	Priority
L1 - L2 - L3	High

Configuration
L1 - L2 - L3 ✓
L2 - L3 - L1
L3 - L1 - L2

Connector ID
0

Cancel Add

Once the phases have been set, it is necessary to set which version of OCPP is integrated in the charger. Normally, all AC chargers use version 1.6J and DC chargers can handle both 1.6J and 2.0.1. Also note that for the EVA to manage the power in these chargers, the “SmartCharging” function of the chargers must be enabled since some manufacturers have it blocked and it must be enabled so that the EVA can do its job properly:

SPECIFICATIONS

Conector Type

AC



Charger Type

Single-Phase



Charger Power

7.4 KW



OCPP Version

1.6



Single-phase config.



OCPP Version

1.6



2.0

2.0.1

Multiconector



Yes



No

Once the OCPP version handled by the charger is set, we will choose which charging priority we want to give to the charger:

SPECIFICATIONS

Conector Type

AC



Charger Type

Single-Phase



Charger Power

7.4 KW



OCPP Version

1.6



Single-phase config.



Priority

High



Multiconector



Yes



No

Priority

High



Medium

Low

Very Low

Finally, once the charger priority has been set, it is necessary to define how many connectors the charger has. This point is also very important since we can find chargers with a single connector (cable or socket), double chargers (normally 2

sockets) or chargers with multiple connectors and voltages such as chargers of electro-power stations with CCS2 connectors for DC or T2 socket/cable, so it is very important to define it well.

In the case of a double charger or, as in the previous case having multiple connectors, the way to adjust it will be to create each connector as a new charger indicating in the ID the same for all connectors and, in the “Multiconnector” area choose “Yes” and indicate in “Connector ID” the corresponding number:

The screenshot shows a mobile application interface for adding a new charger. At the top, a dark blue header contains a plus icon and the text 'ADD CHARGER'. Below this, a red banner displays the error message 'Charger name is required'. The form is divided into two main sections: 'IDENTIFICATION DATA' and 'SPECIFICATIONS'. The 'IDENTIFICATION DATA' section includes fields for Name (with a placeholder 'Ej: Parking N°1'), ID (with a placeholder 'Ej: P01'), Vendor (with a placeholder 'Ej: Tesla'), Model (with a placeholder 'Ej: T0123'), and Serial (with a placeholder 'Ej: T12486512'). The 'SPECIFICATIONS' section includes a dropdown for Connector Type (set to 'DC'), a text input for Efficiency (set to '97'), a text input for Charger Power (set to '180'), a dropdown for OCPP Version (set to '1.6'), a dropdown for Single-phase config. (set to 'High'), a radio button for Multiconnector (set to 'Yes'), and a text input for Connector ID (set to '1'). At the bottom right, there are 'Cancel' and 'Add' buttons.

IDENTIFICATION DATA	
Name	Ej: Parking N°1
ID	Ej: P01
Vendor	Ej: Tesla
Model	Ej: T0123
Serial	Ej: T12486512

SPECIFICATIONS	
Connector Type	DC
Efficiency	97
Charger Power	180
OCPP Version	1.6
Single-phase config.	High
Multiconnector	Yes
Connector ID	1

For those that only have one connector, either socket or cable, indicate as multiconnector and “Connector ID” 1.

Once all the fields are duly filled in, the menu will change from red to green indicating that everything is OK to continue and add the charger, otherwise it will indicate which field is missing and will not let you add it. Once added, dashboard

will show the charger as disconnected and with a message at the bottom right that the charger has been successfully added:

ADD CHARGER

It's all ok!

IDENTIFICATION DATA

Name

cargador test

ID

TACW742820T0194

Vendor

ABB

Model

Terra AC

Serial

TACW742820T0194

SPECIFICATIONS

Conector Type

AC

Charger Type

Single-Phase

Charger Power

7.4 KW

OCPP Version

1.6

Single-phase config.

L1

Priority

High

Multiconector

☒ Yes ☐ No

Connector ID

1

Cancel

Add

CONTROL MANAGER

MY CHARGERS

ONLY AVAILABLE CHARGERS

ADD FROM EXCEL

ADD A CHARGER

MY CHARGERS

METRICS

EN INTERACTION

USERS

CHARGING SESSIONS

LOGS

SUPPORT

CONFIGURATIONS

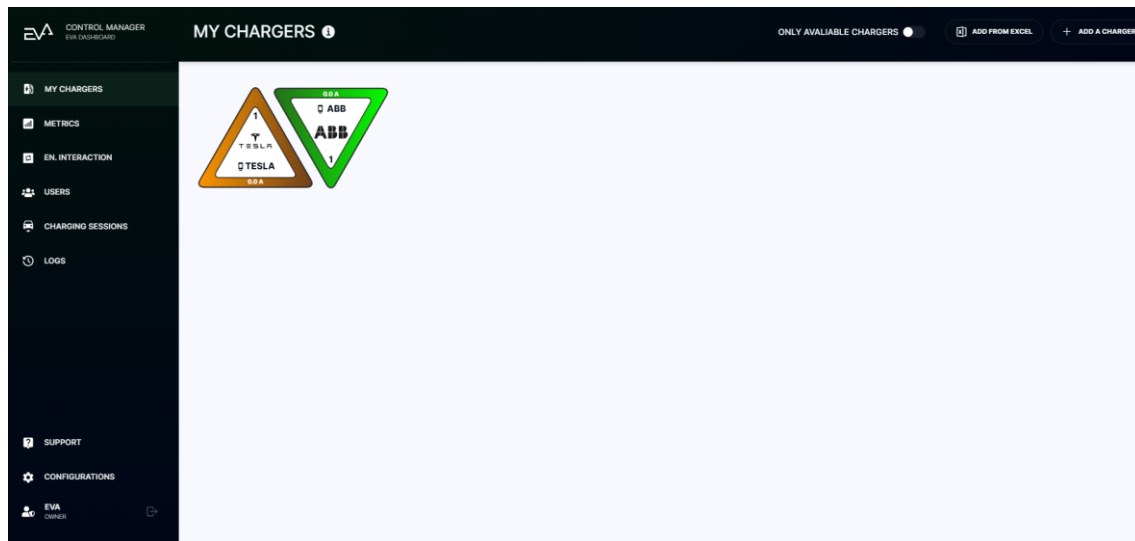
EVA

TESLA

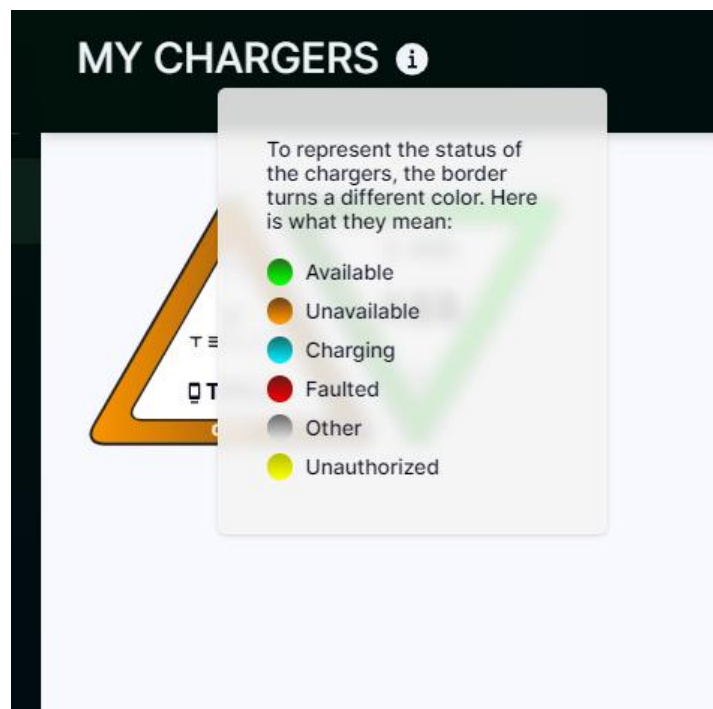
ABB

Charger added successfully

Finally, after a reasonable time has elapsed and each charger responds differently, the charger will appear as connected on the dashboard, in this case, as available and ready for recharging:

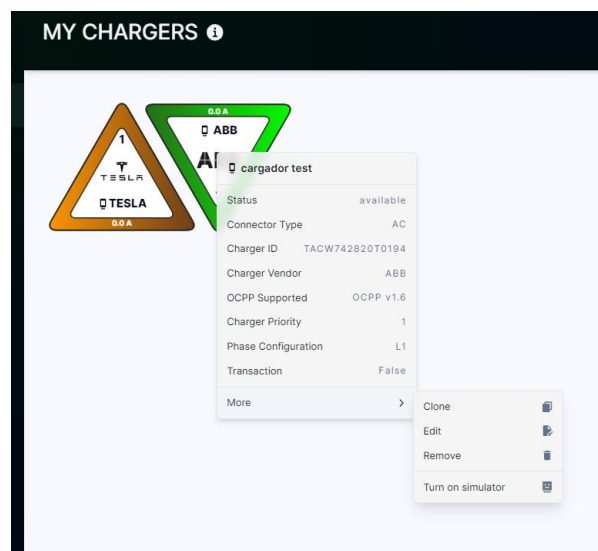


To know the status of the charger, the dashboard will show different colors associated with the charger. By clicking on the “i” info next to My Chargers the following menu will appear:



- Green / Available
- Orange / Unavailable
- Blue / Charging
- Red / Faulted (Error)
- Gray / Other (Preparing or SuspendedEVSE)
- Yellow / Unauthorized
- Purple / Reserved

Also, if we place ourselves over the loader and click with the right mouse button, the following menu will appear::



As you can see, the first part of the menu shows the configured data of the loader and, by accessing the “More” menu, 4 options will appear: Clone, Edit, Remove and Turn on simulator. The first option will copy the selected loader in such a way that it is only necessary to modify certain things and it will already be set. With the Edit option we will reopen the loader edit menu or, if we opt for the Remove option, the loader will be deleted from the Dashboard.

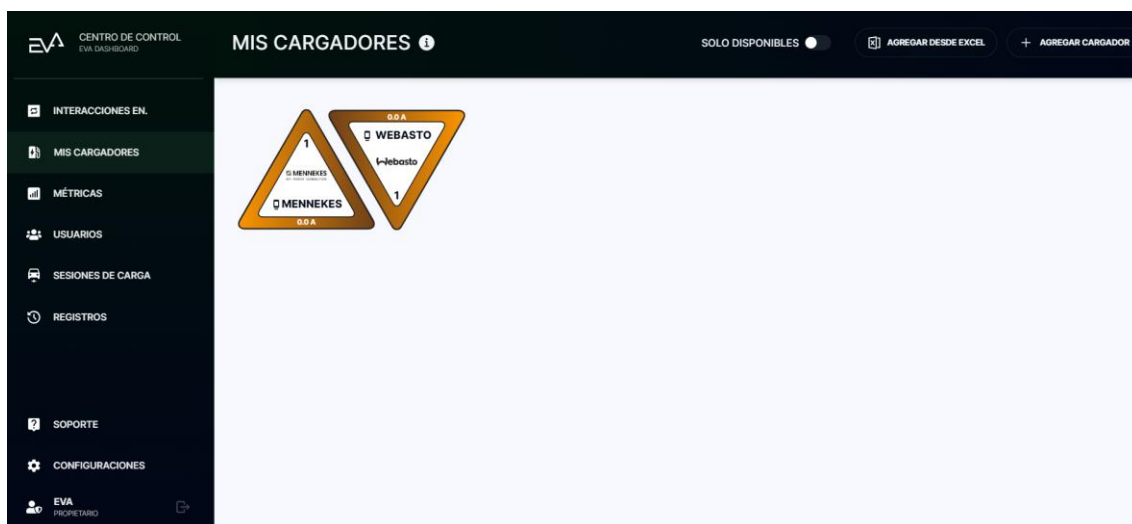
An option that EVA SOFT 2.0 has, as shown in the energy interaction menu, is to give the user (mainly installers, maintainers or designers) the possibility to simulate chargers and see how the installation reacts prior to the real installation.

There is a second method to add chargers and it is through an Excel template that is imported from the “My Chargers” screen. This template looks like this and we will have to fill in the necessary fields:

	Dispositivo	Modelo	Nº serie	Connector id	Charger ID	Charger Connector Type	Charger Vendor	Potencia cargador (kw)	Eficiencia (%)	Versión OCPP	Prioridad	Rotación fases
	Preset de Cargador	MiModelo	12345	1	mychargerid	AC	Tesla	7,4	0,98	1,6	1	L1

Note that the procedure for filling in the fields is the same as in the dashboard, i.e. if we want to add a charger with two sockets, we must add two rows and indicate the same ChargerID and highlight the ConnectorID number. Regarding priority, we will indicate from 1 to 4 with 1 being the highest and 4 the lowest. For efficiency, if we are adding AC chargers it will always be 1 but, if it is DC, the % should be indicated as shown in the previous image. Finally for the phase rotation must be separated by comas.

Once the Excel is finished, we will access the chargers dashboard and click on “Add from Excel”:



Find where the file has been saved and click on “Open”. Subsequently, we will be able to see how the loaders defined in the template are automatically added to the dashboard.

7.4 Configurations

Accessing the “Configurations” menu we will access all the possible configurations that EVA Soft can have. The first thing you will find are the following options:

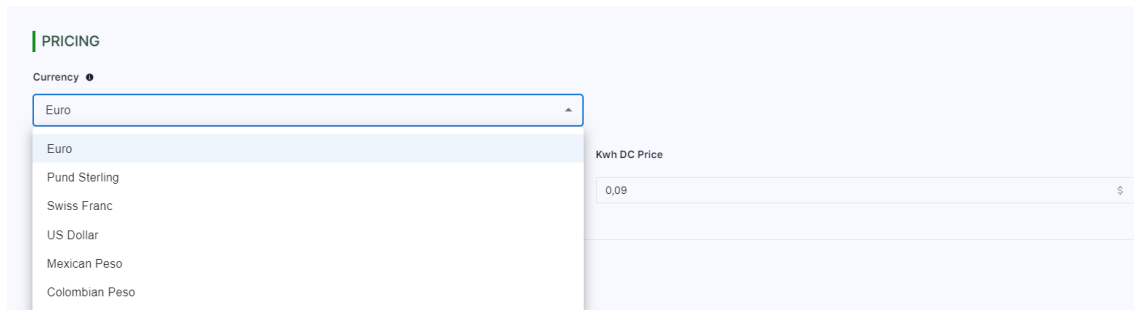
If we leave “PV Installed” connected, as shown in the previous image, we will indicate to the system that the photovoltaic plant of the installation is active. Next, right next to it, if the EVA has the backend or user manager, we must indicate whether we want to use it or not. If it is left connected, the EVA will become the administrative manager of the chargers by enabling the “Users” and “Charging Sessions” menus on the left side of the screen.

Below, you can adjust the values shown on the screen both in Amps and Watts, select what type of installation we are managing, what power the chargers manage and what power factor we have in the installation. These data are set for the first time when starting EVA Soft but, if for any reason there are changes, they can be reset from this menu.

Regarding the power factor, for us it is an important point and mainly for the DC, however, if the data is not known, we recommend to set it to 0.95.

Next, the price settings per kWh for the backend and the administrative management of the chargers are displayed if the option chosen for this is EVA

Soft's own backend. It is possible to choose between different currencies and adjust the price for AC or DC charging:



PRICING

Currency •

Euro

Euro

Pund Sterling

Swiss Franc

US Dollar

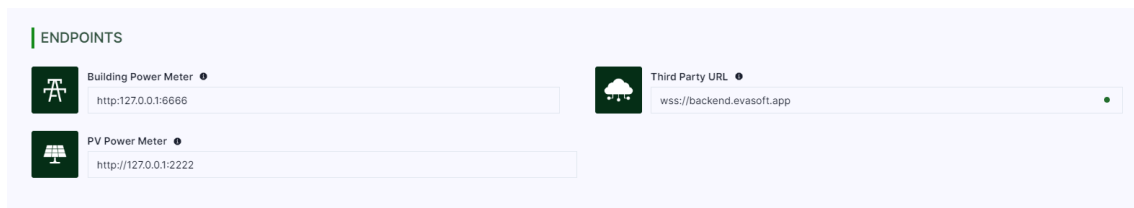
Mexican Peso

Colombian Peso

Kwh DC Price

0.09 \$

Next, we will find the IP settings of the energy meters as well as the URL of the third party backend if this is the option chosen for the administrative management of the chargers:



ENDPOINTS

Building Power Meter •

http:127.0.0.1:6666

PV Power Meter •

http://127.0.0.1:2222

Third Party URL •

wss://backend.evasoft.app

As an indication, the EVA will show a red indication next to the URL if the external system is down or there is no connection, otherwise it will show green indicating that the connection is OK.

Continuing downwards we will find the power settings of the installation, of the photovoltaic plant and whether we want the recharge to be carried out only with photovoltaic energy or not.

DISTRIBUTION LIMITS

Main distribution limit

250

A

250

A

250

A

EVSE Sub-Distribution Limit

150

A

150

A

150

A

Operator EVSE Sub-Distribution Limit

50

A

50

A

50

A

External Load Fallback

200

A

200

A

200

A

PHOTOVOLTAIC SYSTEM

Charge only with PV

☐

PV Distribution Limits

250

A

250

A

250

A

Regarding the option of charging only with photovoltaic energy, as explained in previous points, the system always gives priority to the self-consumption of the installation and the surplus will be used for recharging. The less consumption the installation has, the more it will be used for recharging and vice versa, the system will balance the power by reducing the energy for recharging. Note that the system counts as the minimum current to start charging an electric vehicle is 6A but there are vehicles that do not start until 8A.

At the bottom of the page we will find the last settings that can be changed, that is, the charging priorities. In turn we will have contact details, the options to update the system as well as a system reset button:

CENTRO DE CONTROL

EVA DASHBOARD

CONFIGURACIONES

GUARDAR

INTERACCIONES EN.

MIS CARGADORES

MÉTRICAS

USUARIOS

SESIONES DE CARGA

REGISTROS

SOPORTE

CONFIGURACIONES

EVA

PROPIETARIO

PRIORIDADES

Alta

Media

Baja

Muy Baja

100

%

90

%

60

%

20

%

CONTACTO

Nombre del Operador

Correo del Operador

ssss

ssss@sss.es

ACTUALIZAR

UPDATE API

UPDATE ALGORITHM

SYSTEM

RESTART SYSTEM

7.5 Logs

A differentiating factor of EVA Soft 2.0 is the amount of information it offers at all levels. As a result of the great experience of the Grid Code team, we consider that for a good performance, but mainly for maintenance and troubleshooting, it is the information about the loaders and the EVA system itself, that is, we are talking about the “LOGS”. The “LOGS” are the OCPP logs (protocol spoken by the loaders and backend systems) that EVA displays in real time with the possibility of downloading them in .txt format.

Other systems do not even show such data, neither from the system itself nor from the chargers (only when the chargers and the system are from the same manufacturer is it possible), but in the case of EVA, this information is available.

Accessing the “LOGS” menu we will access the following screen::

Id	Charger Id	Date	Response
296	TACW742820T0194	2024-06-15T14:56:17	HeartbeatPayload(current_time="2024-06-15T14:56:17")
295	TACW742820T0194	2024-06-15T14:51:23	HeartbeatPayload(current_time="2024-06-15T14:51:23")
294	TACW742820T0194	2024-06-15T14:46:28	HeartbeatPayload(current_time="2024-06-15T14:46:28")
293	TACW742820T0194	2024-06-15T14:41:33	HeartbeatPayload(current_time="2024-06-15T14:41:33")
292	TACW742820T0194	2024-06-15T14:36:39	HeartbeatPayload(current_time="2024-06-15T14:36:39")
291	TACW742820T0194	2024-06-15T14:31:44	HeartbeatPayload(current_time="2024-06-15T14:31:44")
290	TACW742820T0194	2024-06-15T14:26:49	HeartbeatPayload(current_time="2024-06-15T14:26:49")
289	TACW742820T0194	2024-06-15T14:21:54	HeartbeatPayload(current_time="2024-06-15T14:21:54")
288	TACW742820T0194	2024-06-15T14:17:00	HeartbeatPayload(current_time="2024-06-15T14:17:00")
287	TACW742820T0194	2024-06-15T14:12:05	HeartbeatPayload(current_time="2024-06-15T14:12:05")
286	TACW742820T0194	2024-06-15T14:07:10	HeartbeatPayload(current_time="2024-06-15T14:07:10")
285	TACW742820T0194	2024-06-15T14:02:15	HeartbeatPayload(current_time="2024-06-15T14:02:15")

This menu is in charge of providing all the information about the chargers or the system (it can be selected at the top right) where it shows in real time everything that is happening with respect to the recharge..

7.6 Profile

Accessing this screen you can change who the owner is as well as the user name and password to make it possible to log in to EVA Soft 2.0. Once the changes have been made, clicking on “Save” will save them in the memory.:

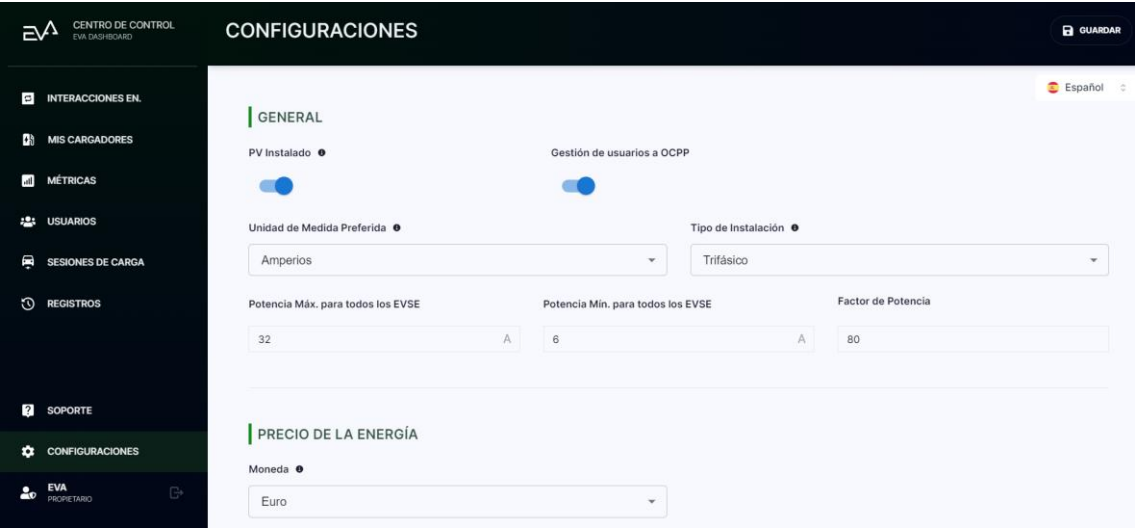
8. Backend (User and payment manager)

EVA Soft offers the possibility of having its own backend to manage users, charging sessions and expense reports. To do so, the loaders must have certain essential requirements to be able to use the backend.

The first feature is that the charger must have a MID counter. Although the ITC-BT-52 of the REBT states that only an energy meter with accuracy class A is required to charge for the recharging service, the new Metrology Law (which will be based on the German Eichrecht) will require MID meters to carry out this service. Therefore, Grid Code strongly recommends that chargers have this type of meter.

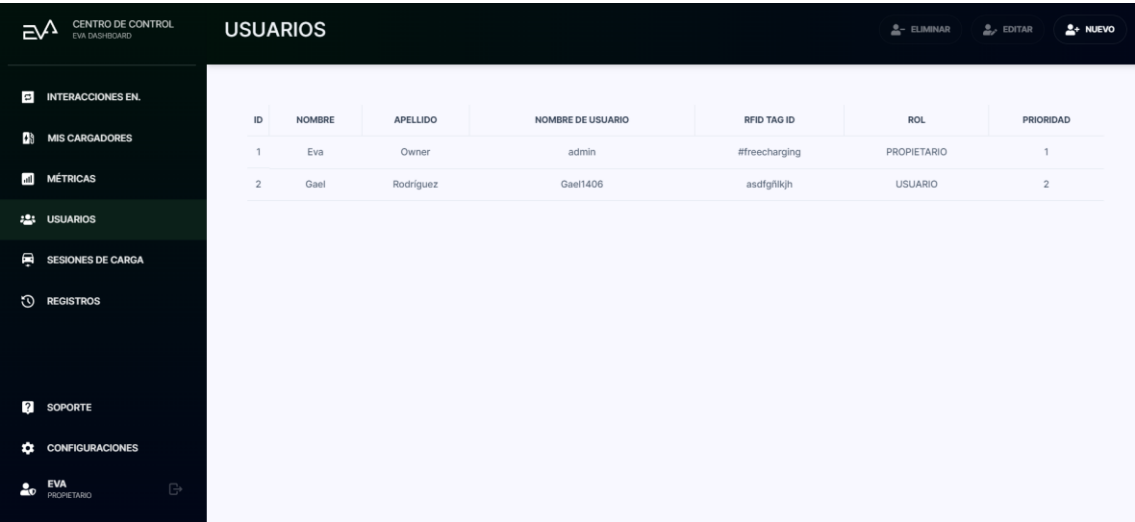
The second requirement is to have an RFID reader so that the charger can read and send the token code or RFID card to the central system to authorize or not the recharge.

To activate the user manager, go to the “Settings” menu and activate the slider switch, otherwise the manager will not work:



8.1. Users

Clicking on the “Users” menu on the left side of the screen will take you to the following screen:



Once inside the menu, it is possible to add, edit or delete users. By clicking on “Add user” we access the following screen:

AÑADIR USUARIO

El nombre es obligatorio

DATOS DEL USUARIO

Nombre: Ej: Parking N°1

Apellido: Ej: Doe

Compañía: Ej: Company S.A

Tag ID: Ej: #tuetiqueta

Rol: Usuario

Prioridad: Muy Baja

SEGURIDAD

Nombre de Usuario: Ej: John

Contraseña:

INFORMACIÓN DE CARGADOR ASIGNADO

Permitir Solo en Cargadores Seleccionados

Cancelar Añadir

As in the screen for adding loaders, once the essential fields are filled in, the red color will change to green with the message “It's all ok”. To create a user it is necessary to fill in a series of fields such as name, surname, user name, password, etc.; to leave it defined.

The “name” and “surname” fields are the name and surname of the user to be created. The “Company” field is the name of the company or even the community of neighbors or parking lots where the user is going to use the chargers. The “Tag ID” is the code of the RFID card or token that the user will use. Usually, these codes are written on the cards themselves or the manufacturers provide them in advance so that they can be managed.

Once these fields have been filled in, the user's role and the loading priority assigned to the user must be defined, thus regulating the VIP charging of the users. Note that the charging priorities of the users are above those assigned to the chargers.

For the roles there are four types of role as shown in the following dropdown:

AÑADIR USUARIO

El nombre es obligatorio

DATOS DEL USUARIO

Nombre: Ej: Parking N°1

Apellido: Ej: Doe

Compañía: Ej: Company S.A

Tag ID: Ej: #tuetiqueta

Rol: Usuario

Prioridad: Muy Baja

Tipo de Rol:

- Usuario ✓
- Administrador
- Mantenedor
- Propietario

Contraseña:

CARGADOR ASIGNADO

Res Seleccionados

Cancelar Añadir

The “User” role is the end-user role where you can only access the portal to consult consumptions, load sessions, etc. The other users (Admin/Maintainer/Owner) have access both to the portal and to the local CPU installed in the installation using the same Username and Password.

The “Admin” user is a user who can only access the administrative management of users and loading sessions. This is the user who can add/edit/remove users and export the load sessions in order to be able to report the expenses to whom it may concern. However, this user will not be able to access anything that corresponds to the chargers or the installation.

The “Maintainer” user is just the opposite of the “Admin” user. This user can only access anything related to the chargers and the installation.

Finally, the “Owner” user is the owner of the installation and the backend and can modify any technical or administrative data.

In the “Security” section the “Username” and “Password” will be the user and password to access the portal or the physical CPU.

In the last section called “Assigned charger info”, it is important information regarding the charging permissions. If these fields are not filled in the user will be able to load in

any charger of the installation where, according to the priority assigned to the user. However, if one or more charger serial numbers are assigned, the user will only be able to load in those chargers. To do this, the “Allow only on selected chargers” slider button must be left active and, once selected, click “Next”:

AÑADIR USUARIO

El nombre es obligatorio

DATOS DEL USUARIO

Nombre: Ej: Parking N°1
Apellido: Ej: Doe
Compañía: Ej: Company S.A.
Tag ID: Ej: #tuetiqueta
Rol: Usuario
Prioridad: Muy Baja

SEGURIDAD

Nombre de Usuario: Ej: John
Contraseña:

INFORMACIÓN DE CARGADOR ASIGNADO

Permitir Solo en Cargadores Seleccionados: ☒

Cancelar Siguiente

Once clicked, a list of chargers will appear and we will have to choose in which one or which ones the user will have the right to charge:

 AÑADIR USUARIO

Debes seleccionar al menos 1 cargador.

INFORMACIÓN DE CARGADOR ASIGNADO

SELECCIONAR CARGADORES PERMITIDOS: 0

ID	NOMBRE	ID DEL CARGADOR	ID DEL CONECTOR
54	Mennekes	mennekes	1
55	unite prueba	7000641623000501	1

Cancelar

Volver

Añadir

And, once you have chosen the chargers, click on “Add”:

 AÑADIR USUARIO

¡Todo está bien!

INFORMACIÓN DE CARGADOR ASIGNADO

SELECCIONAR CARGADORES PERMITIDOS: 1

ID	NOMBRE	ID DEL CARGADOR	ID DEL CONECTOR
54	Mennekes	mennekes	1
55	unite prueba	7000641623000501	1

Cancelar

Volver

Añadir

Once everything is defined, it should change from red to green giving the system the OK and the user will be added. When the user is created, the user list is shown as in the

following screen. If you click on the user, it lights green and enables the buttons at the top right to delete or edit the user.

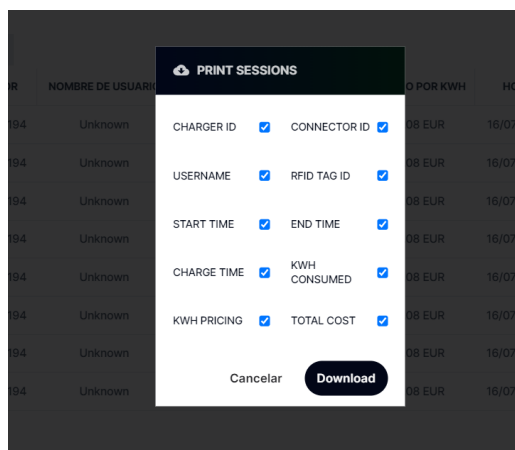
ID	NAME	LASTNAME	USERNAME	RFID TAG ID	ROLE	PRIORITY
1	Eva	Owner	admin	046C4CC2C85D80	OWNER	1

8.1. Charging sessions

To access the loading sessions menu, click on “Loading Sessions” located on the left side of the screen and you will find the following page:

ID	ID DE CARGADOR	NOMBRE DE USUARIO	RFID TAG ID	KWH CONSUMIDOS	PRECIO POR KWH	HORA DE INICIO	TIEMPO DE CARGA	COSTO TOTAL	ESTADO
1	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:45:19	-	-	stop_undefined
2	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:45:32	-	-	stop_undefined
3	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:45:44	-	-	stop_undefined
4	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:45:56	-	-	stop_undefined
5	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:46:07	-	-	stop_undefined
6	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:46:20	-	-	stop_undefined
7	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:46:32	-	-	stop_undefined
8	TACW742820T0194	Unknown	undefined	-	0.08 EUR	16/07/2024, 21:46:45	-	-	stop_undefined

This screen will show all the loading sessions carried out by the authorized users in the installation and to obtain the data, click on the “Download” option located in the upper right part of the screen and the following menu will appear:



Here, we will choose the data we want to appear per column in an Excel file (.xlsx). Once the fields have been chosen, click on “Download” and a file will be downloaded to the download folder defined on the PC or device. Once downloaded and the file is opened, it looks similar to this one:

CHARGING SESSIONS											
EXPORTED USING EVA SOFT											
id	charger_id	connector_id	username	tag_id	start_transaction	stop_transaction	kwh_pricing	total_charged_energy	total_duration	total_cost	stop_status
1	1161123	TACW742820T0194	1 Unknown	undefined	2024-06-26 16:09:58	2024-06-26 16:14:49	0,08	0	0,08056	0.0 EUR	Correct
5	1161116	TACW742820T0194	1 Unknown	undefined	2024-06-26 16:04:15	2024-06-26 16:09:01	0,08	0	0,07917	0.0 EUR	Correct
5	246967	TACW742820T0194	1 Unknown	undefined	2024-06-27 16:33:09	2024-06-27 16:40:36	0,08	0	0,12417	0.0 EUR	Correct
7	246966	TACW742820T0194	1 Unknown	undefined	2024-06-27 16:21:31	2024-06-27 16:21:42	0,08	0	0,00278	0.0 EUR	Correct
3	246965	TACW742820T0194	1 Unknown	undefined	2024-06-27 16:14:59	2024-06-27 16:21:27	0,08	0	0,1075	0.0 EUR	Correct
3	246964	TACW742820T0194	1 Unknown	undefined	2024-06-26 15:42:10	2024-06-26 15:50:30	0,08	0	0,13861	0.0 EUR	Correct
0	32	000641623000501	1 Unknown	undefined	2024-07-26 22:35:40	2024-07-26 22:36:49	0,08	0	0,01917	0.0 EUR	Correct
1	30	000641623000501	1 Unknown	undefined	2024-07-26 22:15:59	2024-07-26 22:31:56	0,08	0	0,26593	0.0 EUR	Correct
2	29	000641623000501	1 Unknown	undefined	2024-07-26 22:15:55	2024-07-26 22:15:57	0,08	0	0,00056	0.0 EUR	Correct
3	28	000641623000501	1 Unknown	undefined	2024-07-26 22:15:51	2024-07-26 22:15:53	0,08	0	0,00028	0.0 EUR	Correct
4	27	000641623000501	1 Unknown	undefined	2024-07-26 22:15:46	2024-07-26 22:15:49	0,08	0	0,00056	0.0 EUR	Correct
5	26	000641623000501	1 Unknown	undefined	2024-07-26 22:15:42	2024-07-26 22:15:45	0,08	0	0,00056	0.0 EUR	Correct
6	25	000641623000501	1 Unknown	undefined	2024-07-26 22:15:30	2024-07-26 22:15:32	0,08	0	0,00056	0.0 EUR	Correct
7	22	uniteprueba	1 Unknown	undefined	2024-07-22 20:36:14	2024-07-22 20:36:30	0,08	0	0,00417	0.0 EUR	Correct
8	21	TACW742820T0194	1 Unknown	undefined	2024-07-22 19:46:06	2024-07-22 19:46:36	0,08	0	0,00833	0.0 EUR	Correct
9	20	circutor_prueba	1 Unknown	undefined	2024-07-22 19:45:10	2024-07-22 19:45:33	0,08	0	0,00639	0.0 EUR	Correct
0	19	circutor_prueba	1 Unknown	undefined	2024-07-22 19:44:28	2024-07-22 19:44:41	0,08	0	0,00333	0.0 EUR	Correct
1	18	circutor_prueba	1 Unknown	undefined	2024-07-22 19:43:59	2024-07-22 19:44:09	0,08	0	0,0025	0.0 EUR	Correct
2	17	b5256a489c300eal	1 Unknown	undefined	2024-07-18 01:52:30	2024-07-18 01:54:27	0,08	0	0,03222	0.0 EUR	Correct

9. Possible problems

Once SACI EVA Soft 2.0 is installed, although it is a robust system, like any electronic device it can cause some kind of problem.

If from the chargers screen we observe that the chargers have lost communication, we recommend, first, to refresh the page to see if this is really the case. If the problem persists, we recommend:

- Check if the IP of the charger is in the same range as that of the EVA
- Check if the ChargerID is the same in both the charger and the EVA.

Finally, if the error persists, we recommend restarting both the chargers and the EVA from the settings section.

We recommend restarting the EVA from the settings section and also, if necessary, restarting the chargers.