



## Configuration instruction

EV Charging port and electric circuits monitoring

# EVA

MODEL : EVA-MM6-1-2

### Step 1 : Configure Internet acces for the EVA module

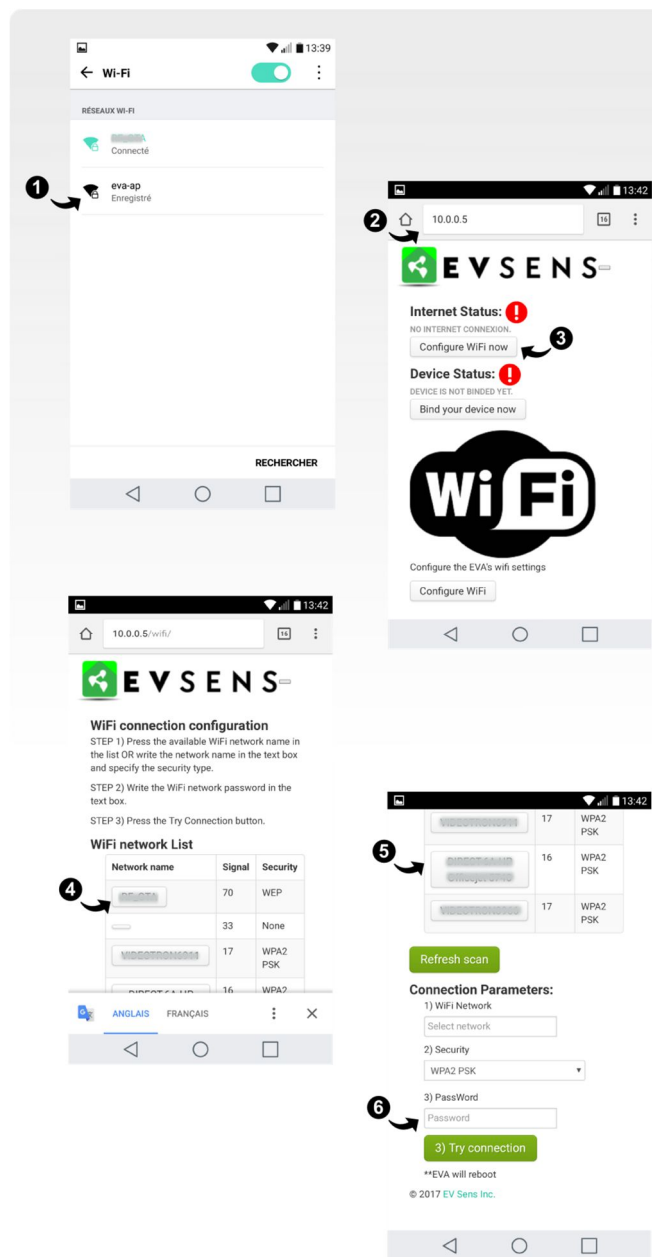
This section explains the configuration of the connection to the wireless network ( Wi- Fi ) of the house.

**If the EVA module is connected directly to the router with a network cable go to step 2 .**

The EVA module has an LED to display its operating status. The flashing codes are :

Code of blink	Description
4.5 seconds ON 0.5 second OFF	No error, always displays this code within the first 5 minutes.
0.5 second ON 4.5 seconds OFF	No connection to the EV Sens cloud OR no internet connection.
1 second ON 1 second OFF	Access to the EV Sens cloud but the module is not paired, missing pairing code.

1. To configure the EVA module, connect it to the power supply. After a delay of 30 to 60 seconds, the EVA module gives access to an **eva - ap** access point which is accessible with a mobile device . Just select this access point via the Wi-Fi configuration of the mobile device and use the password **evawificonfig** . This access point is available for 20 minutes after the EVA module is powered up.
2. Then, the user must open the web browser on his mobile device and enter the address **10.0.0.5/** to access the local *WebApp* of the EVA module. Using Safari on iPhone requires entering **http://10.0.0.5/** as the address to access the *WebApp* .
3. In the module's local *WebApp* , you must access the Wi-Fi configuration section by pressing the **Configure WiFi now** button .
4. The local *WebApp* displays a list



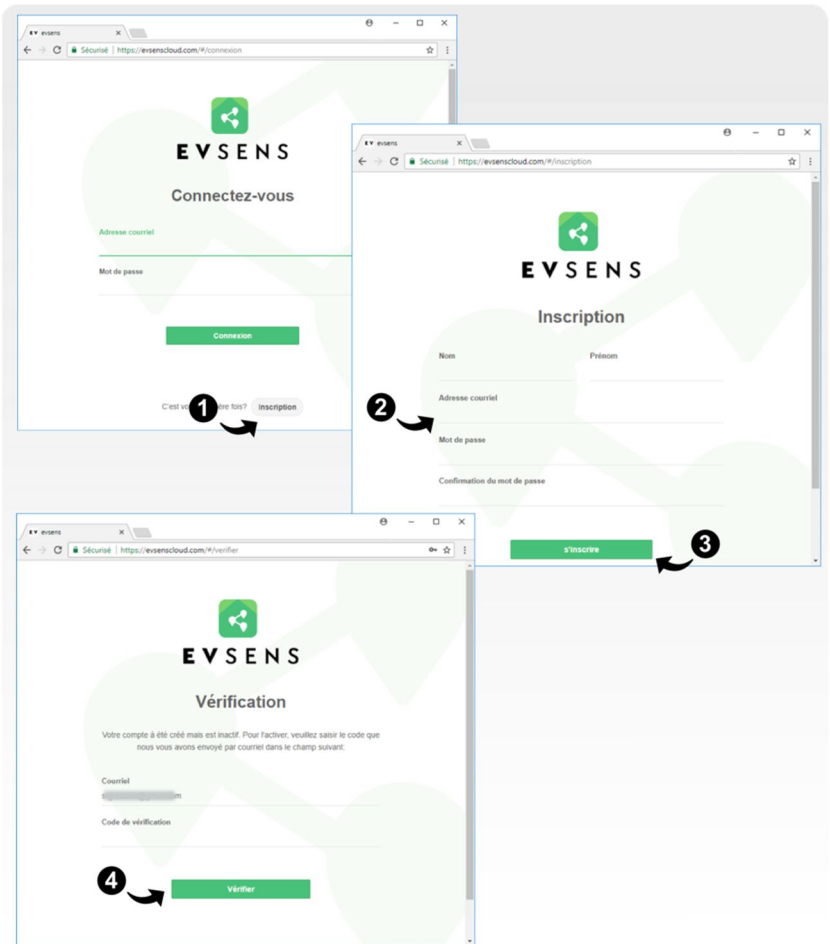
<p>of available Wi-Fi networks that have been identified by the EVA * module .</p> <p>5. The user can select the network he wishes to use by pressing the button corresponding to the network. The information of the selected network is automatically copied in the section <b>Connection Parameters</b> .</p> <p>6. The user must enter the network password in the <b>PassWord</b> box and press the <b>Try connection</b> button . The EVA module perform an automatic restart to access the Internet through the wireless network. If the EVA module is unable to access the Internet, it will automatically return to access point mode for 20 minutes after restarting.</p> <p><i>* Note that the EVA module is not able to connect to WiFi network names having characters with accents OR networks having passwords with accent.</i></p>	
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## Step 2) Create your EV Sens profile on the portal

The EV Sens portal is accessible at the address :

**evsenscloud.com**

1. To create an account, press the **Registration** button on the home page.
2. In the registration page, provide an id account corresponding to the **email adress** . Please note, this email must be valid since a confirmation code will be sent to it. In this same page, enter also the last and first name and register a **password** which must be confirmed .
3. To start registration, press the **register** button . The user will automatically be redirected to the verification page . A confirmation email will be sent in which a six- digit confirmation code will be indicated. **Verify your emails junk if after a few minutes you still not received the email .**
4. Enter the **email adress** , the six figures **verification code** and click on **Check**. Following the verification, the user will be redirected to the login page.

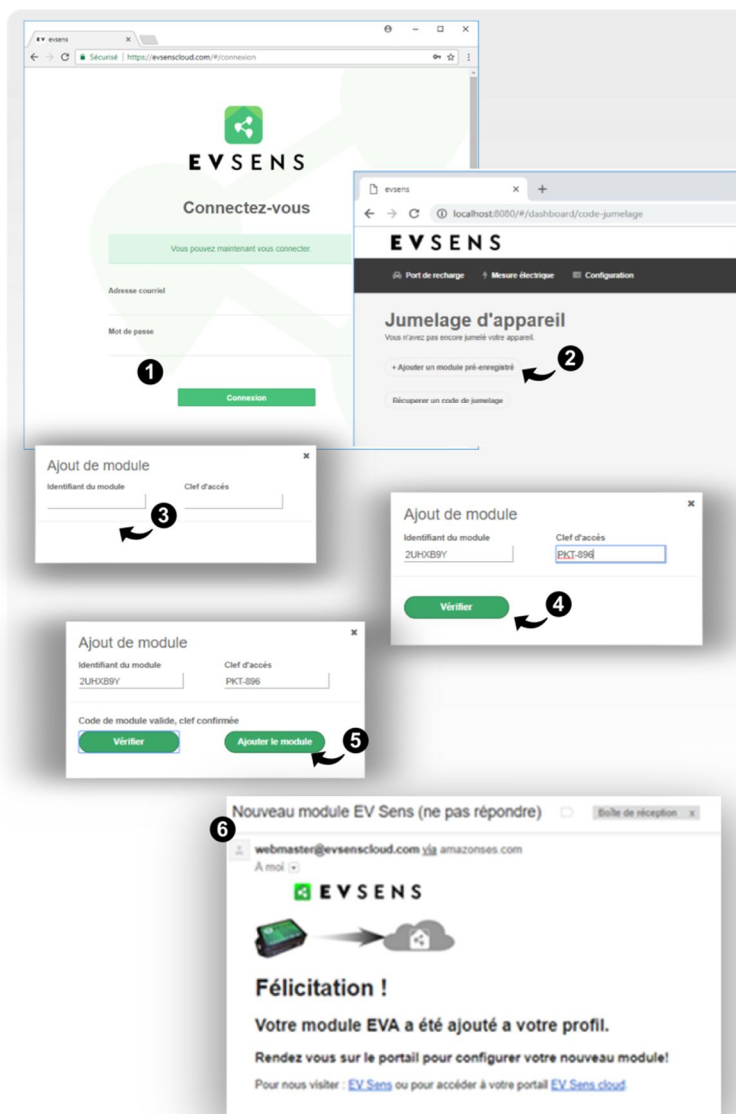


### Step 3) First connection to the profile on the EV Sens portal and pairing of your pre-registered module

1. To connect to the EV Sens account , simply enter the **Email address** and the **Password** saved during registration.
2. During the first connection , a message will indicate that no EVA module is paired with the account. Press the button + **Add Module pre-recorded** .
3. In the **Add module** window, **enter the** Module ID and the access key received with your module. See the label fixed to the back of the module.
4. Use the **Check** button to validate the information. In case of error validate the information and check again, it is necessary to enter the capital letters.
5. If the information is valid, the button **Add the module** becomes available. Press this button so that the module is added to your EV Sens profile.
6. Following registration, you will receive a confirmation email notifying you that the module has indeed been added to your profile.

After registering the module, you must refresh the web page with your browser button and access the **Configuration** page .

**To configure the details of your module and the measure ports, pass to the following step .**



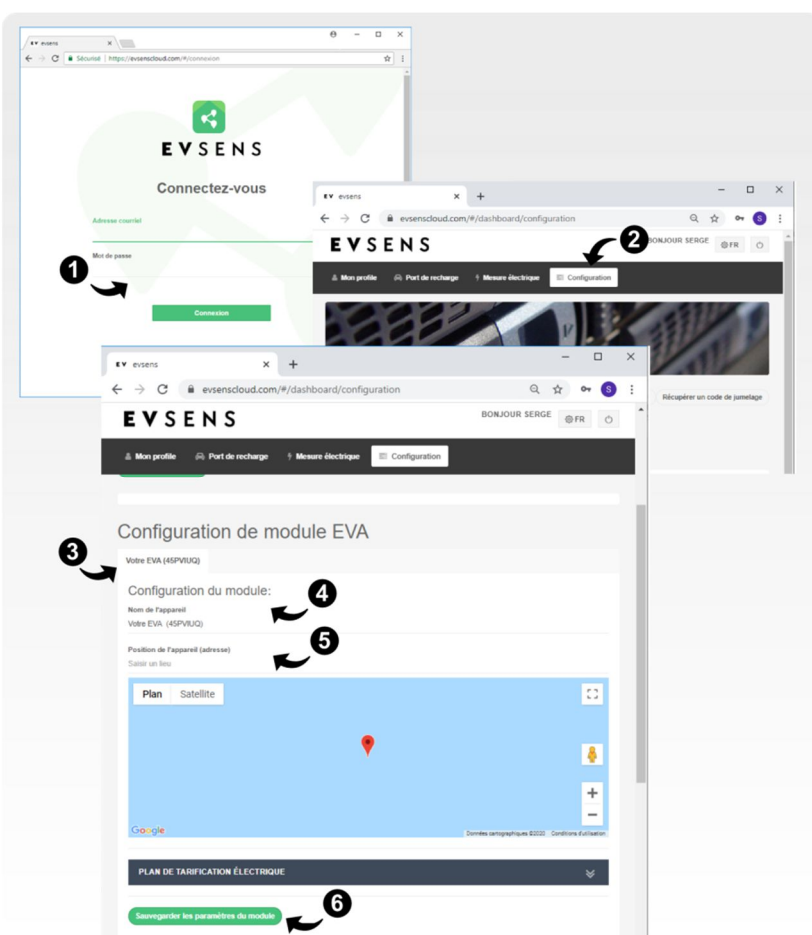
Following the start-up of their EVA module, the user must configure the parameters of the module which has been added to their profile on the EV Sens portal (Step 4) .

The user must also configure the ports of the module to power the display ( Step 5 ) otherwise no action will be displayed in the page **Electrical measurements** .

If the user has an electric vehicle (EV), he can add it to the **My vehicles** section of the **Configuration** page and indicate the port of the EVA module that measures the charging station associated with the EV ( Step 7 ).

#### Step 4) Initial configuration of the module

1. To configure the module, connect to the account by visiting the **evsenscloud.com** website,
2. Then click on the **Configuration** button .
3. On the page that opens, in the **EVA module configuration** section , a tab has been added corresponding to the new EVA module added to your profile .
4. By default, the gate modulates the name " Your EVA " followed by an identifier of your module. You can rename the module, but it is best to keep the code in brackets following the given name.
5. It is possible to give the geographic position of the module by entering the address of its location . This information is necessary for recording weather data .
6. Press the **Save** button to **keep the module parameters in** order to save the modifications to your profile .



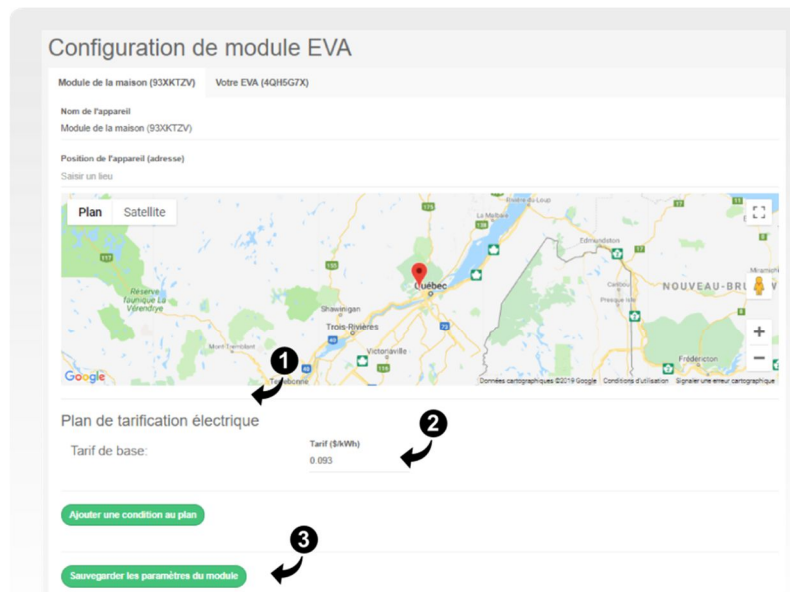
The EV Sens system is used to estimate the electricity costs of the devices being measured. These costs are linked to the prices (per kWh) set by the electricity supplier.

For users with a fixed price, simply register the basic price in the module configuration \* (see Step 5 A ).

\* For the majority of Hydro Québec residential customers, the price per kWh is divided into two tranches. The first tranche is for the first 36 kWh multiplied by the number of days which is priced at \$ 0.059 / kWh and the second tranche is for the surplus which is priced at 0.093 \$ / kWh. In most cases the power consumption exceeds the first tranche. EV Sens recommends in this case to use the price of 0.093 / kWh as a fixed price for the cost estimate. Otherwise, if your consumption does not exceed 36 kWh per day (on average), it is therefore possible to apply a rate of \$ 0.059 / kWh.

### Step 5A) Configuration of the basic rate

1. In the **EVA module configuration** section , on the **Configuration** page , go to the sub-section **Electric price plan** .
2. The EV Sens system uses a default tariff ( **Basic tariff** ) which can be modified by the user by modifying the value entered in the **Tariff** field .
3. The user must then click on the button **Save the module parameters** to validate the registration system .



In some cases, the price may vary depending on the time of day or year. In other cases, the price may vary depending on the temperature (for example dual-energy system ).

The EV Sens system makes it possible to record an electric pricing plan according to conditions linked to periods ( **Hourly Type** ) or according to the temperature of the geographic position of the module ( **Temperature Type** ) .

This system works in order of priority. It is possible to register several conditions which follow after the **Basic Tariff** . Thus, the conditions at the bottom of the list have priority over the previous ones if ever its criteria apply.

The following example illustrates a pricing plan that has a base price of \$ 0.093 / kWh (Basic Condition). For periods of high demand from 5 p.m. to 7 p.m., for the whole year and for all days of the week, the price is \$ 0.11 / kWh (First condition). In this example, during periods of extreme cold (below -14 Celsius ), the price of 0.12 \$ / kWh.

### Plan de tarification électrique

Tarif de base:

Tarif (\$/kWh)

0.093

Condition de base

Type

Horaire

Mois début

01-Jan

Mois fin

12-Déc/Dec

Jour début

Lun/Mon

Jour fin

Dim/Sun

Heure début

17:00

Heure fin

19:00

Tarif (\$/kWh)

0.11

Supprimer

Première condition

Type

Température

Condition

Inférieur à:

Température seuil (C)

-14

Tarif (\$/kWh)

0.12

Supprimer

Deuxième condition

Ajouter une condition au plan

In this example, if the temperature is above -14 C and the time of day is not between 5 p.m. and 7 p.m., the price applied is \$ 0.093 / kWh (basic condition) . When the period is between 5 p.m. and 7 p.m., the system applies the first condition which overwrites the basic condition . If in the period from 5 p.m. to 7 p.m. the temperature is below -14 C, the system applies the price of the second condition since it overwrites the first condition. Thus the conditions at the bottom of the list have priority on the preceding and overwrites it when are encountered.



## Step 5B) Configuration of the electric plan rate

1. In the **EVA module configuration** section , on the **Configuration** page , go to the **electrical pricing plan** sub-section and click on the **Add a condition to the plan** button . The user must add a line per condition of the pricing plan.
2. For each line, choose the type of condition : **Time** or **Temperature** .
3. In the case of a **Time** type condition , select the periods of application of the condition (month, day and start and end time) .
4. In the case of a **Temperature** type condition , indicate weather criteria type **Greater than** or **Less than** and the **Threshold temperature** .
5. Indicate the applicable tariff if the condition is met in the **Tariff** field .
6. Each line can be deleted independently using the **Delete** button corresponding to the line.
7. The user must then click on the **Save module parameters** button to validate the registration to the system .

Configuration de module EVA

Module de la maison (93XKTZV) Votre EVA (4QH5G7X)

Nom de l'appareil  
Module de la maison (93XKTZV)

Position de l'appareil (adresse)  
Saisir un lieu

Plan Satellite

Plan de tarification électrique

Tarif de base: 0.093

Tarif (\$/kWh) 0.093

Ajouter une condition au plan

Sauvegarder les paramètres du module

Type: Horaire

Mois début: 01-Jan Mois fin: 12-Déc

Jour début: Lun/Mon Jour fin: Dim/Sun

Heure début: 17:00 Heure fin: 19:00

Tarif (\$/kWh) 0.11

Supprimer

Type: Température

Condition: Inférieur à

Température seuil (C) -14

Tarif (\$/kWh) 0.11

Supprimer

Ajouter une condition au plan

Sauvegarder les paramètres du module



## Step 6) Configuration of the ports for electric measurement

1. On the **Configuration** page of the EV Sens portal , go to the **Configuration of the module ports** section .

By default, all the ports are of type **Undefined** . The port configuration menu is opened by clicking on the port title or the corresponding drop-down arrow.

2. To choose the device type measured by the port, simply press the blue pencil shaped.

3. A list of device choices is displayed \*. By selecting the device, the port fields are automatically modified.

4. The **Port name** field takes a default value depending on the choice of device made. However , the user can change the name manually.

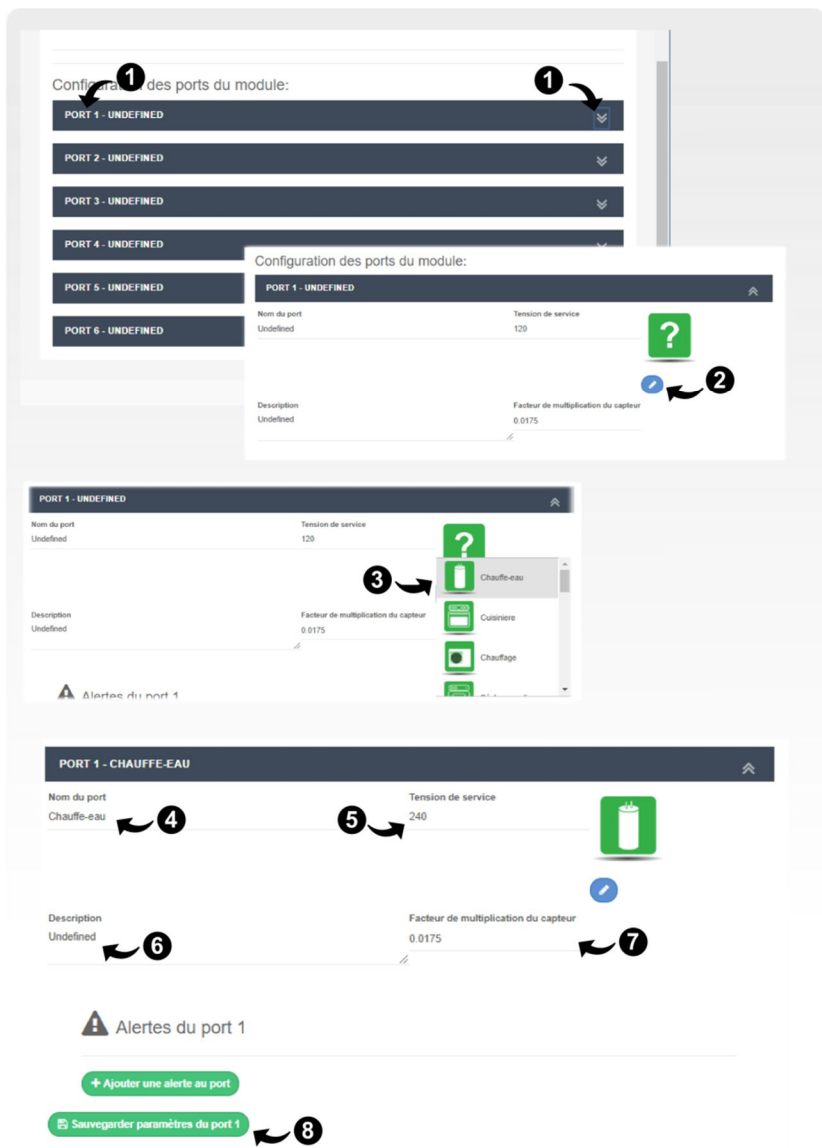
5. The field **voltage Service** takes a default value based on the unit performed by choice. The user can modify this indication if the measured circuit differs from the displayed value.

6. The user can add a **Description** personalized to the unit.

7. By default, the **factor of multiplication of the sensor** is set to the value 0.0175 which corresponds to the sensors of caliber 0 - 60A. If a different CT is connected to the measurement port , the user must enter the factor corresponding to the port. For 200 A sensors, the user must enter 0.065.

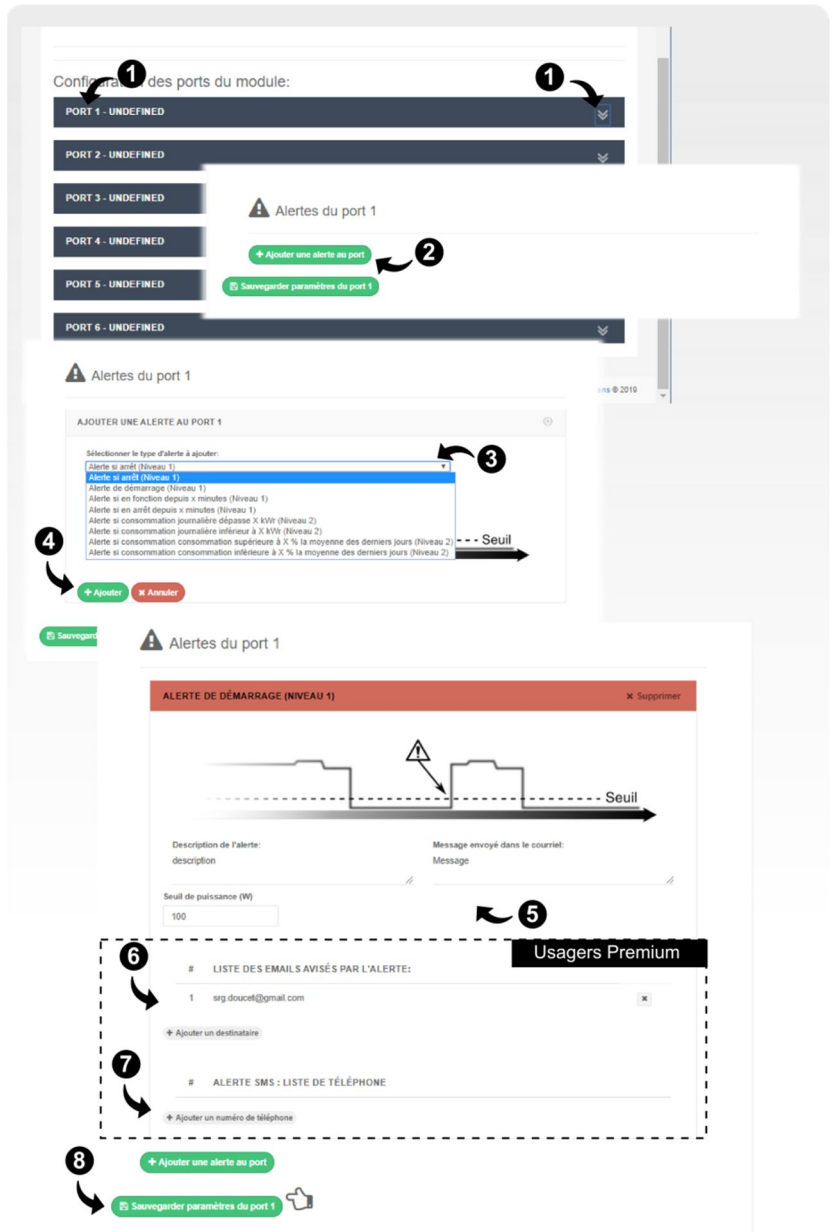
8. Click the **Save Port x Settings** button to save the changes.

\* If the unit measured is not in the list, communicate with us so we can eventually add this choice in the list. It is also possible to choose a similar device.



## Step 6.1) Configuration of alerts at the measurement port

1. In the **Configuration** page of the EV Sens portal, go to the **Configuration of the module ports** section and open the configuration panel for the desired port.
2. Press the **Add Port Alert** button.
3. A list of alert choices is available by selecting the drop-down list. Depending on your package, it is possible that some kinds of Alert are not available.
4. Press the **Add** button to add the alert to the port and have access to its configuration. Note that at this stage the alert is not saved to the profile.
5. Depending on the type of alert chosen, configure the alert triggering parameters. The user can also define a description and a message related to the alert (which will be transmitted by email or SMS).
6. **For Premium users:** By default the user's email is at the top of the list. Other alert recipients can be added by pressing the **Add Recipient** button. Note that the recipient must have an EV Sens profile in order for their email address to be validated. The recipient simply has to create and validate an EV Sens account (free).
7. **For Premium users:** It is possible to receive alerts by text message (SMS). Just press the **Add phone number** button and enter the number without the dashes with the international (e.g. 1 ) and regional (e.g. 418) callsign example : 14185551234 .
8. Press the **Save Port Settings** button to save the information to your profile.



## Step 7) Adding an electric vehicle (EV) to EV Sens portal profile

### For Premium users :

1. On the **Configuration** page of the EV Sens portal , simply press the **Add vehicle** button .
2. Then enter the name of the EV in the first box and select its descriptive elements in the dynamic window:
  - Manufacturer
  - Year
  - Model
  - Color
3. Select the name of the EVA module associated with the charging station that measures the consumption of the EV.
4. Select the port of the EVA module associated with the charging station which measures the consumption of the EV.
5. Press the **Save** button to save the EV to the profile.

The EV information is used to make the calculations related to the estimated savings in terms of CO2 and fuel economy.

**EV Sens is not able to register all EV models on the market in its system.** If your EV model is not available in the choices offered, it is possible to select a similar model first and then let us know, it will be a pleasure for us to add it in our database.

You can send us an image of your EV which will be formatted and added to your profile by our team. Send your information to : [support@evsens.ca](mailto:support@evsens.ca)

The screenshot shows the EV Sens portal interface for premium users. The main navigation bar includes 'Port de recharge', 'Mesures électrique', and 'Configuration'. The 'Configuration' page is active, displaying 'Mes véhicules' and a '+ Ajouter un véhicule' button (labeled 1). Below is the 'Configuration de modules' section. A modal form is open for adding a vehicle, with fields for 'Mon VE', 'Modèle', 'Couleur', 'Module associé à la recharge', 'Port associé à la recharge', and 'Sauvegarder'. The form is annotated with numbered steps: 2 points to the 'Mon VE' field, 3 points to the 'Module associé à la recharge' dropdown, 4 points to the 'Port associé à la recharge' dropdown, and 5 points to the 'Sauvegarder' button. The background shows a list of vehicles with columns for 'Nom', 'Modèle', 'Couleur', 'Module associé à la recharge', and 'Port associé à la recharge'.

**To view the EV in the configuration page , press the refresh button on the Web browser .**

# Use of the EV Sens portal

The EV Sens portal allows you to view the electricity consumption data of the devices measured by the EVA module. In addition, EV owners, the portal EV Sens allows you to view the power consumption of charging sessions and also to calculate the estimated savings made s rolling power in terms of dollars and CO2 saved effect.

## A. Visualization of electrical measurements on the EV Sens portal

1. To view the electrical measurements, the user must select the **Electrical measurements** page of the EV Sens portal .

2. The user must specify the measurement range he wants to observe by selecting **Start Date** and **End Date** and press the **Observe consumption** OR just use the predefined ranges buttons : 4H, 12H ...

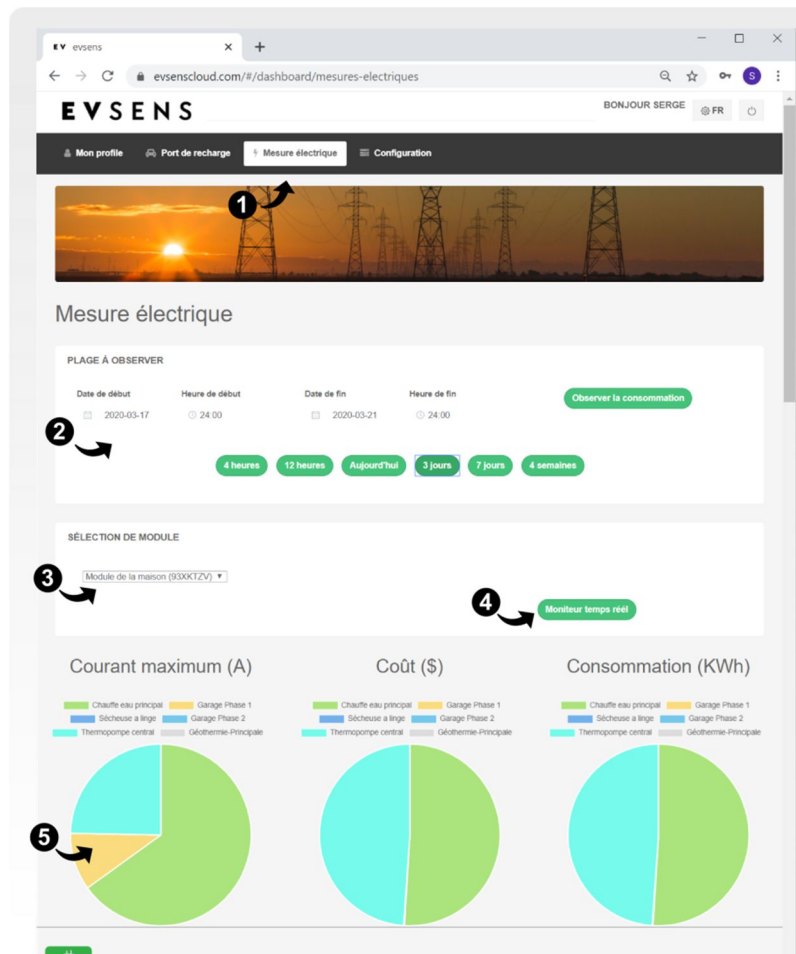
The temporal spacing of the data that is displayed depends on the range chosen by the user ( **End date** minus **Start date** ). For a range of one day, the time spacing is 5 minutes. For a range of 2 to 7 days, the time spacing is by the hour. For a range exceeding 7 days , the time spacing is by the day.

3. The EV Sens portal allows a user to have multiple EVA units related to its portal . In such a case, the user may chose the module that it is desired to display in the selecting in the dropdown list.

4. When the user visualizes its data by being connected to the same network as the module (eg : WiFi in the house), it is possible to access the live monitoring by pressing the button **live monitor** .

5. The graphs in the shape of pie tips allow you to compare the measurements of the different ports for the selected time range.

6. The summary of the measurement range displays the maximum current observed in the period as



well as the sum of energy and the electricity costs of this period chosen for each of the measurement ports.

7. The user can select the element he wishes to display on the graph, namely: the power demand, the consumption in kWh, the cost per measure, etc.

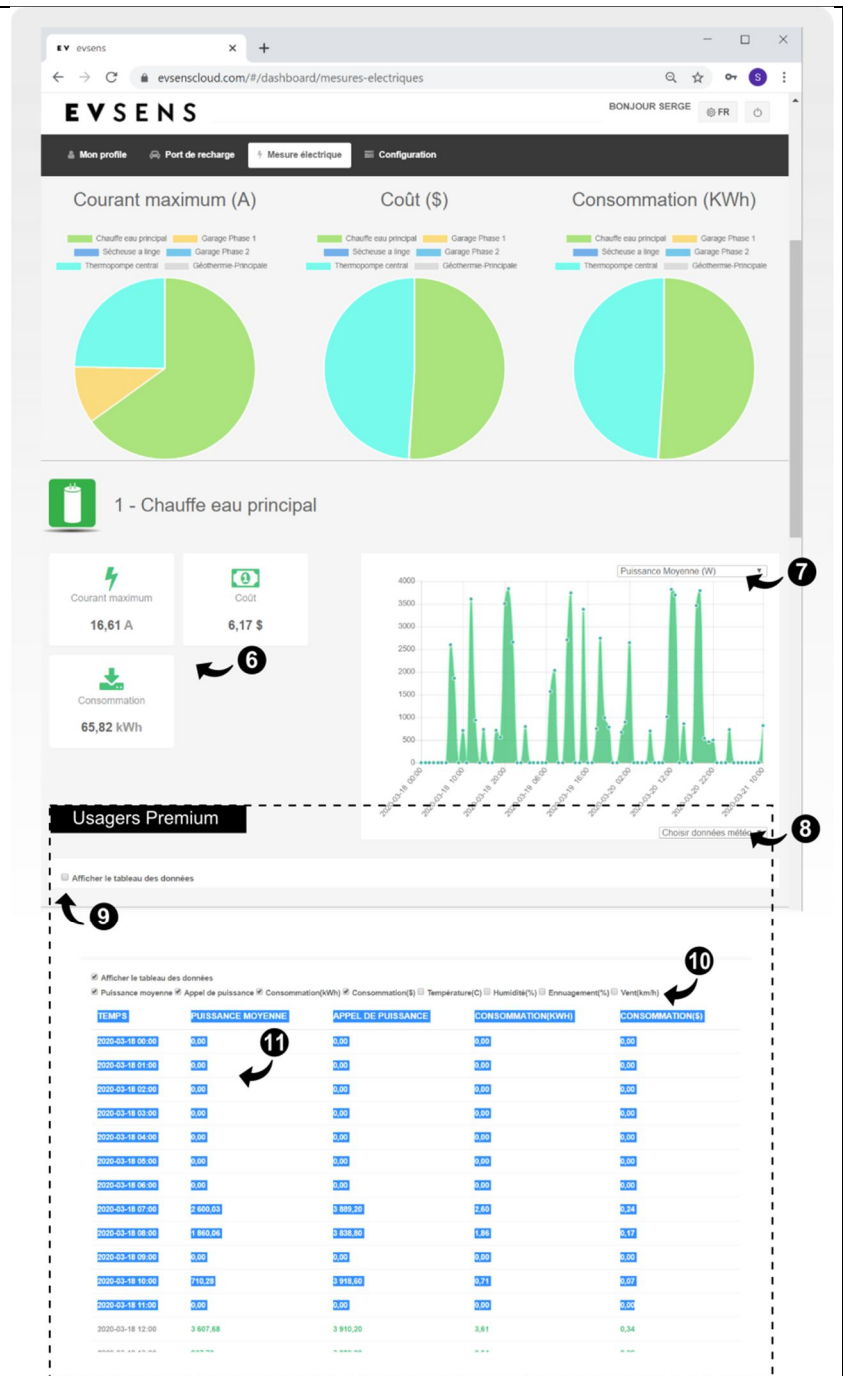
8. **For Premium users:** The user can display a graph of weather data under the graph of electrical measurements. The weather data is recorded at the hours and during the display with a temporal spacing to the day. The data displayed is a daily average. Available data are: temperature, humidity, cloud cover and wind speed.

Please note that the weather data come from a web service external to EV Sens. The accuracy of the values cannot be guaranteed by EV Sens.

9. **For Premium users:** The user can display the data in the form of a data table by selecting the **Display data table** check box .

10. The user can select the columns he wishes to display.

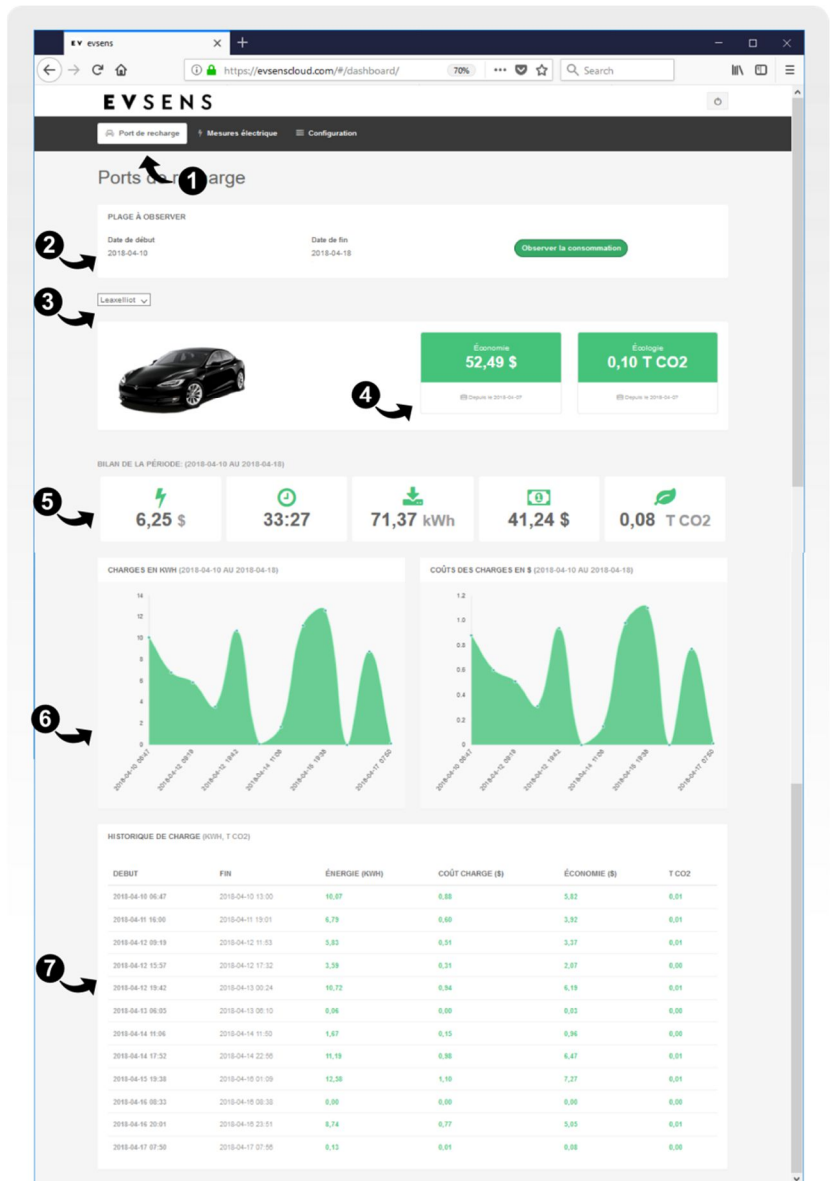
11. The user can select the data displayed to easily copy it into a data spreadsheet (Excel or other)



## B. Information display of the electric vehicle

The **Charging Port** page allows the user who owns an EV to have information related to the savings estimates made while driving electrically, but also to view the information of the different charging sessions

1. To view the information on electric vehicle charges, the user must select the **Charging Port** page of the EV Sens portal.
2. The user must specify the measurement range he wants to observe by selecting the **date from / to** and press the **Observer consumption**.
3. The user must select the EV of his profile for which he wishes to view the information.
4. The user can see the saving in dollar terms, and CO2 saved from the time the EV is registered on the EV Sens portal
5. The user can see the summary of measurements for the selected measurement range.  
This summary gives:
  - the sum of the electricity costs of the charges
  - total charge time
  - the total electrical energy of the charges
  - estimating the savings made in electric driving
  - estimating gas emissions CO2 saved.
6. Graph showing energy and costs as a function of the moment of charging.
7. Table listing the different charging sessions.





# Changing your EV Sens plan

EV Sens offers a free basic package for all users. The basic package allows all users to view readings of his module(s) EVA and configure some alerts. EV Sens offers a Premium package which gives access to advanced functionalities and advantages.

Some EVA modules are sold with a pre-registered Premium package at a discount rate. Please see your authorized electrician or Ev Sens reseller for more information. The user can view the benefits of his package by performing the following operations.

## A. View and change your plan

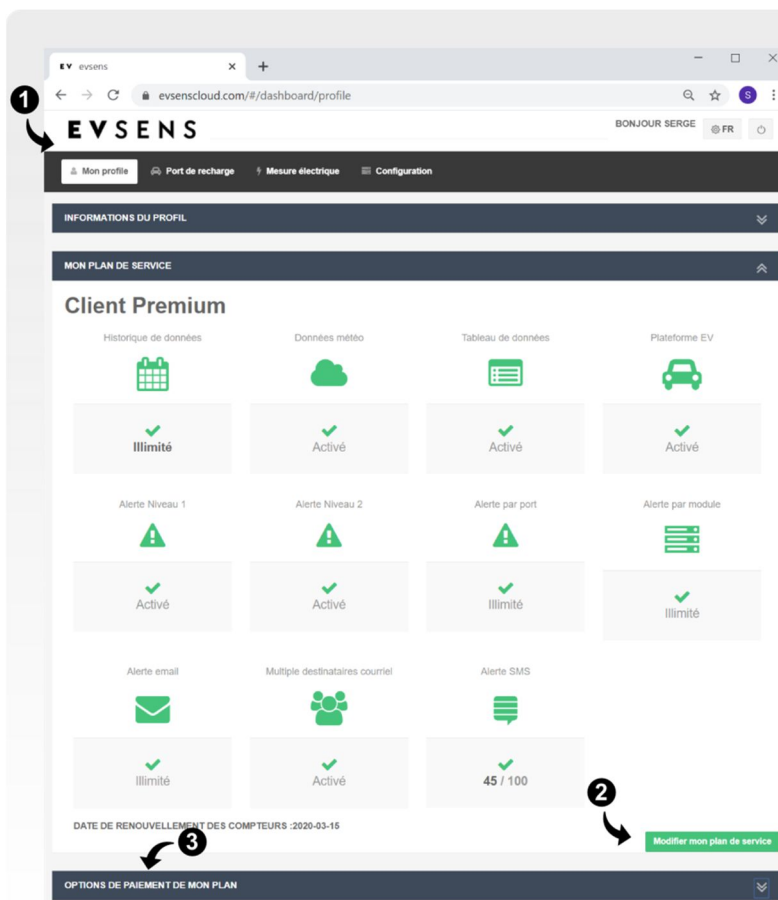
1. To view the information of his package or to know his level of consumption of certain services, the user must select the **My Profile** page.

Information about the user's plan is displayed in the **My service plan** banner.

2. The user can modify his package by pressing the **Modify my service plan** button. The information is displayed in the menu following this operation.

**Please note that only credit card transactions are accepted for package purchases. Credit card information is not saved on the EV Sens servers. Credit card information is fully managed by Stripe financial transaction service.**

3. Following a subscription purchase transaction, the credit card information linked to the payment is available in the **Payment option** banner of **my plan**. If you want to change the credit card associated with the subscription, simply registered it in this section for automatic renewals (if selected).





For any questions or comments, you can contact customer service at the following email address:

**[support@evsens.ca](mailto:support@evsens.ca)**