

HOW TO MAKE A PHOTOVOLTAIC INSTALLATION ?

Step Number 1 – Calculate your electrical needs

The goal of the photovoltaic installation is to **produce some electricity thanks to the sunlight**. The first step is to **know how much electrical energy you need to make all the electrical equipment you need work**. Depending on how many equipment you want to supply with solar electricity, this quantity of energy will change. You have to look at **how much energy the equipments need and add all of them to have the total energy needed**.



Step Number 2 – Dimensionning of the installation

Now that you know how many energy you need to supply the equipment you want, **you can choose the size of the solar panels in order to produce that amount of energy**. You can also **choose the size of the batteries if you want to put some**, and **choose the size of the solar controller** (for safety, they control how much energy the panels can produce, and make sure its not dangerous). Finally you have to **choose the size of the inverter**, which will convert the electricity produced from DC (direct current) to AC (alternative current) which the equipment use.



Step Number 3 – Financial study, business plan

Once you know how much energy you need, and the size of all the equipment you want to install, **you have to look at the total cost of the installation**. You have to **compare that price to the money you will save** (you don't have to buy the electricity you produce) and see in how long you will have reimbursed the installation, and maybe gained some money.



Step Number 4 – Installation

If everything is okay with the price, you can install everything ! **Choose a place where the panels will receive as much sun as possible** (good orientation, around 30° slope, no buildings around), the ideal place is usually on **the roof of the building**.



Step Number 5 – Taking care of the installation

The last step is to **take care of the installation : cleaning the panels**, and **changing the parts when needed** (some elements last longer than other, batteries last for 5-10 years, panels for 20-30 years). **That change of equipment must be taken into account when you calculate how long it will take to gain money with the panels** (if you have to buy batteries every 10 years for example).

