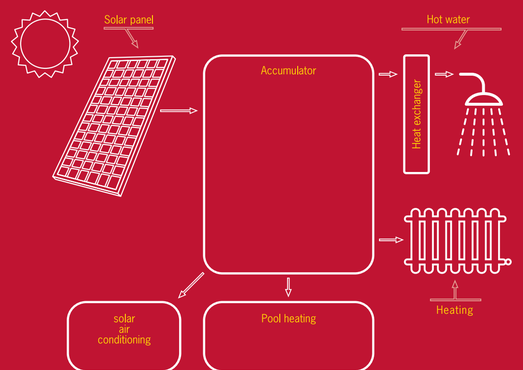
SOLAR ENERGY THERMIC

It is based on the use of the solar radiation to obtain energy by the heating of a fluid (water and antifreeze agent), which flows through the inside of a panel or solar collector. Then this fluid is transmitted to a thermobank. This technology is useful both for the domestic use and for any kind of industry use, as well as hospitals, hotels, etc...

This system of solar use can be easily integrated in already existing installations.

Applications for this kind of energy are:

- **Production of sanitary hot water for domestic or industrial use:** taking the maximum advantage of the solar energy can ensure sanitary hot water during 24 hours every day for the whole year.
- **Heating complement:** previously heating the water of the circuit will help affording in the traditional heating system, which is more expensive and highly polluting.



- **Swimming pool heating:** it is an efficient economic system and it can be easily integrated in an already carried out installation.
- **Cooling and air conditioning:** it is a system with a promising future in which Electrorayma is specialized. This system consists of using the heat generated by solar panels instead of electricity to produce cool or heat and this way condition the air in indoor places.

Due to the fact that the needs of highest cooling in summer do coincide with the highest solar radiation availability, all the cool needed for the cooling of the different places is produced by a system of absorption of lithium bromide. In this case, a balance between supply and demand is produced.

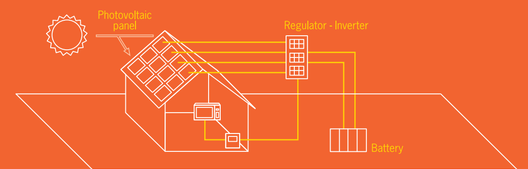
During the winter we would use the heat directly absorbed by the panels for warming the different areas.

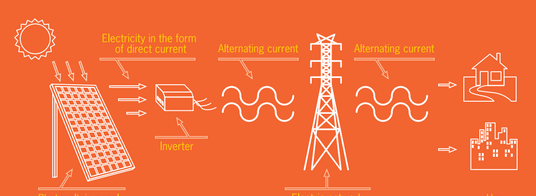
SOLAR ENERGY THERMIC

SOLAR ENERGY PHOTOVOLTAIC

The installation of the photovoltaic solar energy is used to produce electric power for own use (isolated) or for being sold to the electric power supply for its distribution and consumption (network).

The principle of working is quite simple: when sun rays come into contact with a photovoltaic solar panel, they generate an electron flow in their inside causing electric current.





There are two different types of photovoltaic installations:

- **Installations isolated from the network (own consumption).** It is used to provide electric supply in places which are distant from the electric network. The electric power produced by a solar panel can be used at the very moment or stored in batteries for its later use.
- **Installations interconnected to the electric network (for selling).** This consists of injecting to the general network the electricity generated by photovoltaic solar panels, then it can be distributed or used. This way this is an operation with large environmental benefits apart from the fact that it is quite profitable, as it sells the power obtained to different electric companies.

SOLAR ENERGY PHOTOVOLTAIC