



COMPANY PROFILE

Energy Srl
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Energy Srl is an Italian company founded in 2013 with the vision of providing sustainable solutions to achieve 100% renewable energy.

The company provides a low-risk and low-cost transition to a new energy model.

Energy has two divisions: one is dedicated to provide particular air conditioning solutions which assure a better comfort and energy efficiency.

The second one is focused on residential energy storage and management appliance, and distributed energy storage and management system for Behind-the-Meter applications.

Energy focus on technology design and implementation for customers in partnership with brand name suppliers based on step-by-step modular design, which is safe, customizable, scalable and expandable.



Our commercial solutions include:

1. Metal Ceiling for radiant heating/cooling system;
2. Hybrid Solar Panel;
3. Heat pump designed to work with solar probe;
4. Electric storage facilities (X-Hybrid, All in rescue solution);
5. Energy Storage Solution for Micro Grids
6. Energy Storage Solution for power management on smart grid.

Energy is the first distributor of storage systems in Italy with more than 1800 systems installed, lowering costs, increasing energy efficiency and reliability, accelerating the adoption and integration of sustainable renewable energy solutions.

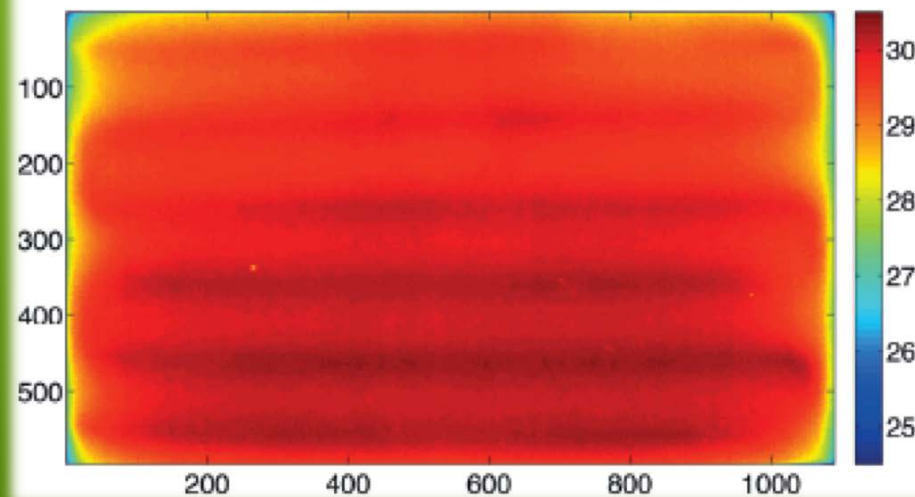
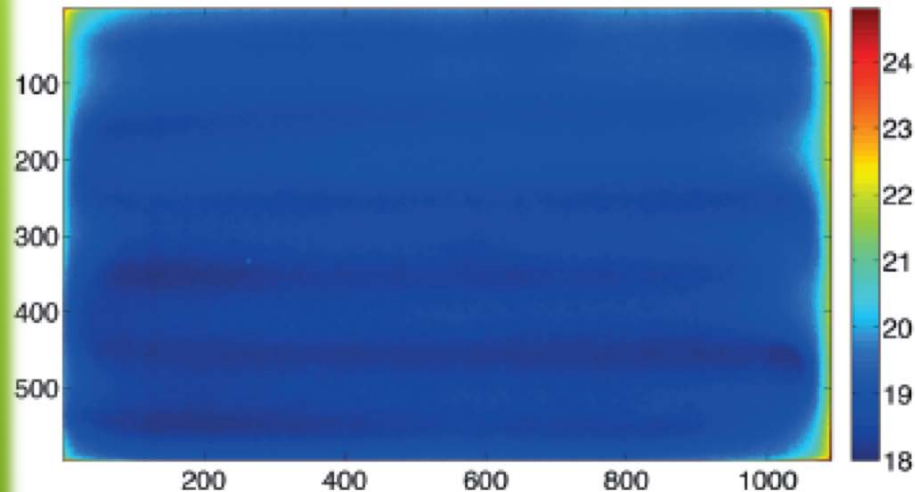
Metal Ceiling for radiant heating / cooling system



**ECLIMA IS AN INNOVATIVE
RADIANT PANEL THAT PROVIDES
HIGH EFFICIENCY
AND EXTRA COMFORT, THANKS
TO THE OUTSTANDING THERMAL
PROPERTIES
OF A GRAPHENE-LIKE LAYER
EMBEDDING ITS HEAT
EXCHANGER**



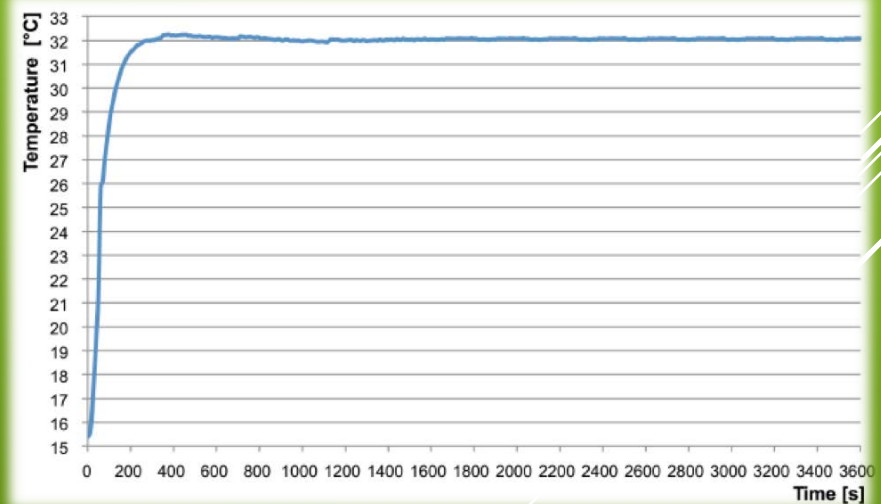
Metal Ceiling for radiant heating / cooling system



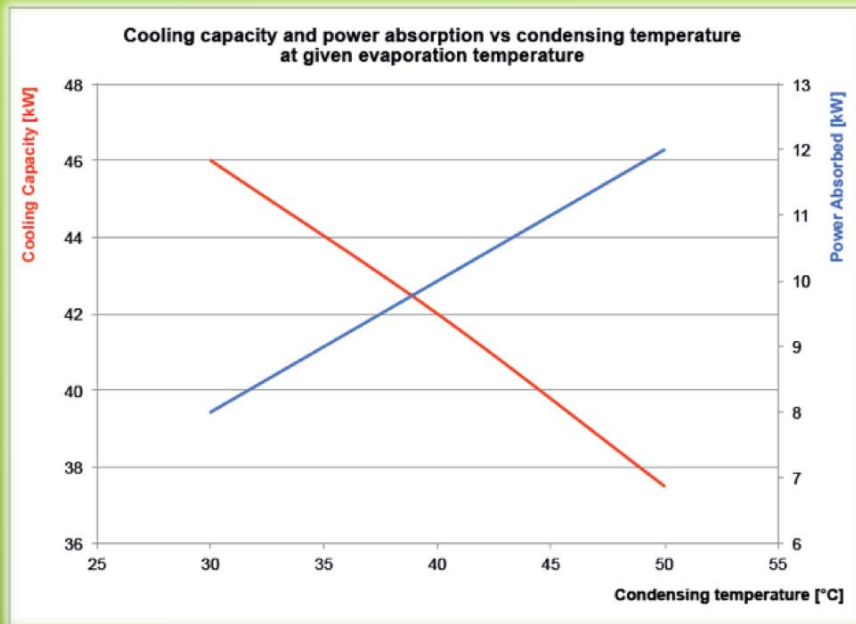
Thanks to the outstanding thermal properties of the expanded graphite, the radiating component of the heat flow is much higher in comparison to traditional systems, allowing for much faster heat transfer.

This, in turn, leads to an extremely homogeneous distribution of the temperature on the metal panel surface, which consents to heat / cool simultaneously the whole area of a roof, maintaining the air all around at precisely controlled temperature.

The radiant ceiling panel achieves the desired temperature within 5 minutes only



Metal Ceiling for radiant heating / cooling system



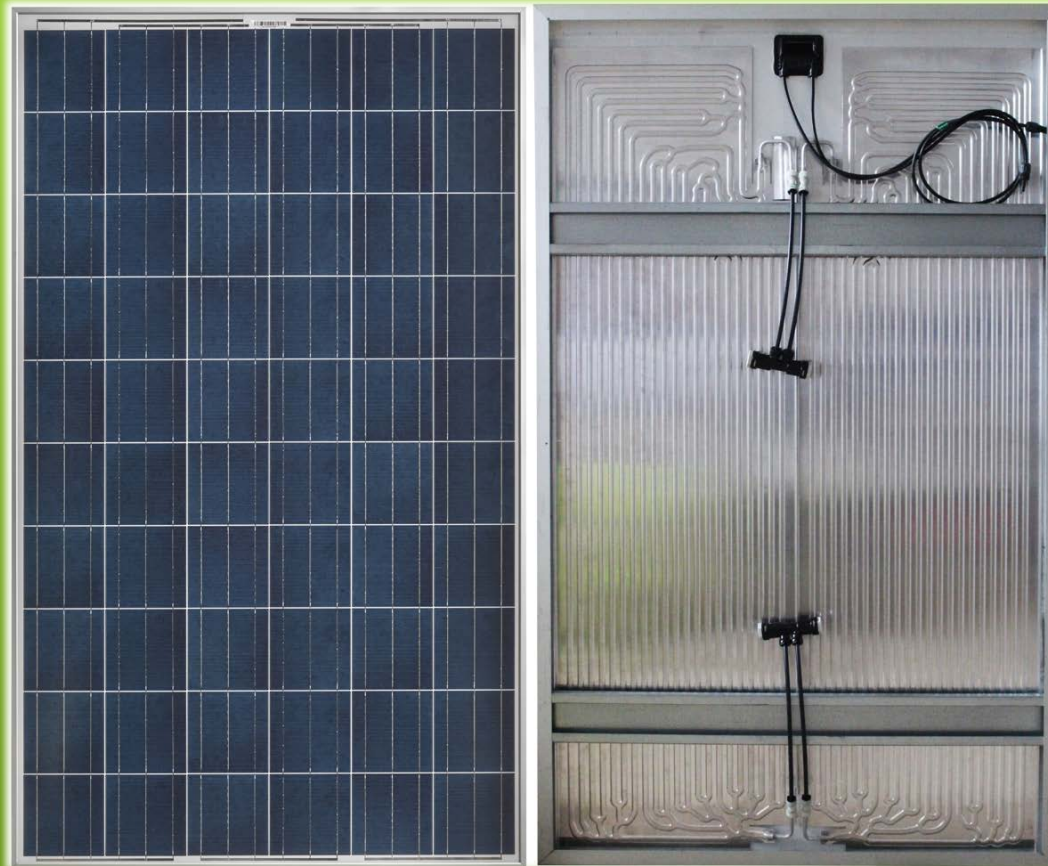
Since Energy radiant system provides homogeneous temperature inside the room, good comfort is achieved with smaller difference between indoor and outdoor temperature.

Consequently the temperature of the circulating water can be lower in heating mode and higher in cooling mode, if compared to traditional systems; leading to energy saving up to

40%



Hybrid Solar Panel



Hybrid solar panel is a traditional photovoltaic panel, combined with a heat exchanger in contact with the back sheet of the photovoltaic cells.

The heat exchanger is a single flat roll bond panel, between the roll bond and the back sheet is installed an high density expanded graphite sheet.

The working mode is the same of the traditional photovoltaic panel: the sunlight is being transferred and converted to electrical energy.

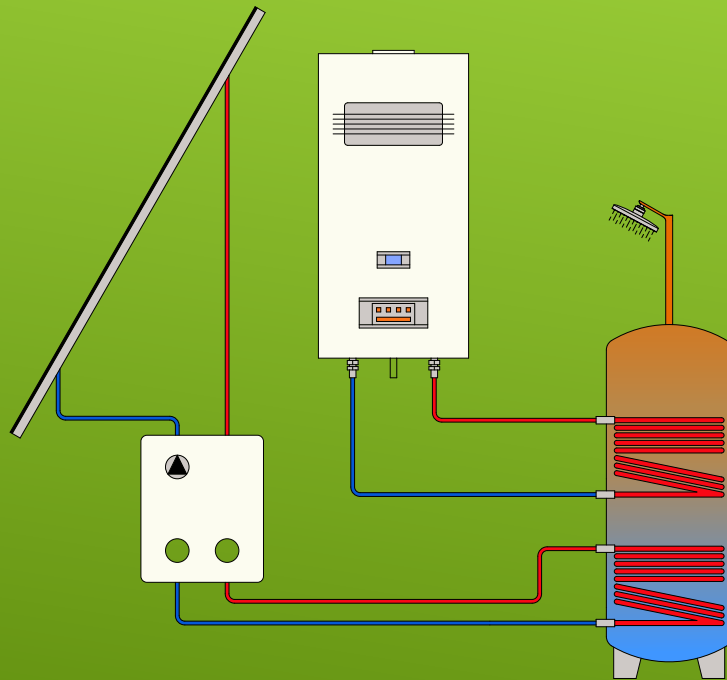
Photovoltaic and sun radiation effect produce considerable quantity of heat, that in standard panel is being wasted, increasing the cells' temperature up to 70-80 °C, in summer, reducing consequently the electric performance.

Hybrid panel recovers wasting heat!

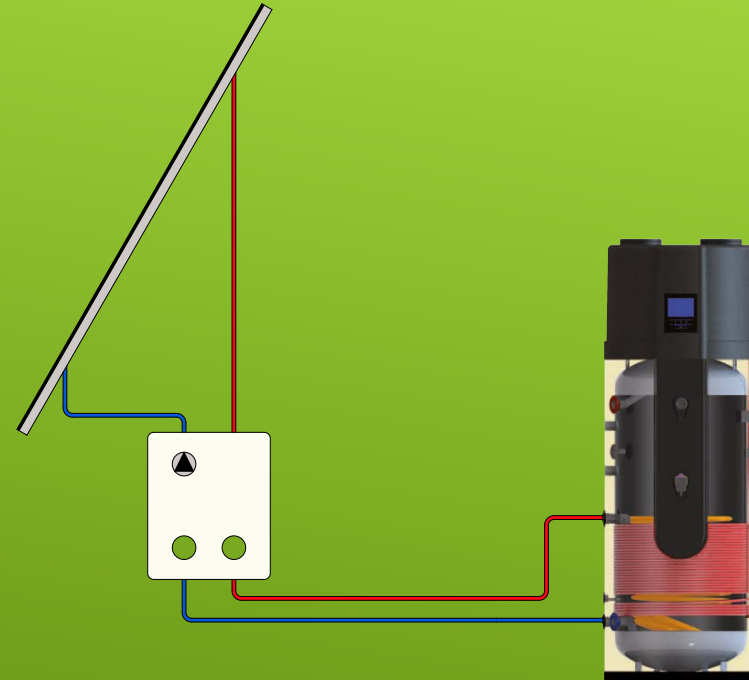
Hybrid Solar Panel



Thermal energy is recovered to storage hot water in a sanitary water tank



Integrating a traditional boiler system

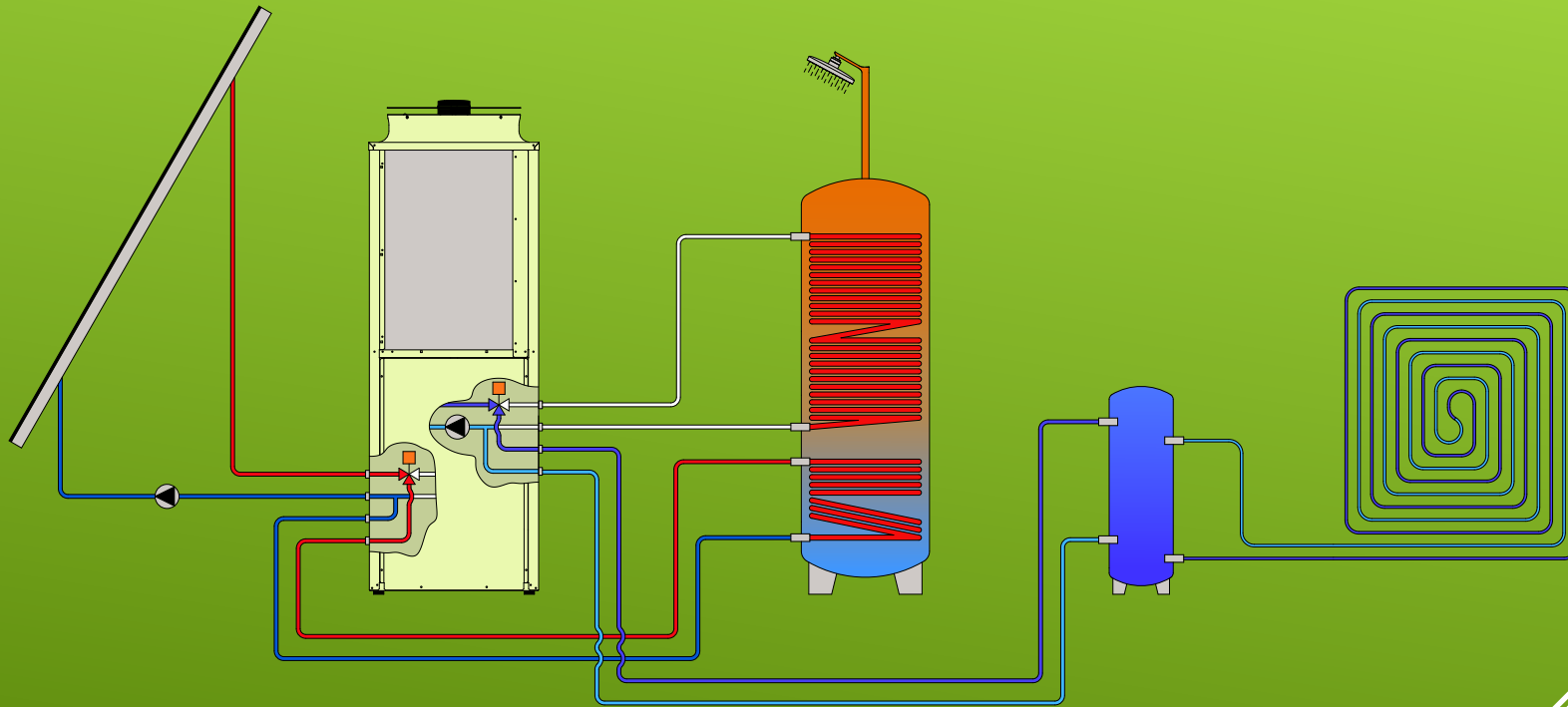


Integrating a heat pump

Heat pump designed to work with solar probe



Thermal energy recovered consents to provide a warm source to the evaporator in heating mode during winter, and a free heating source in summer



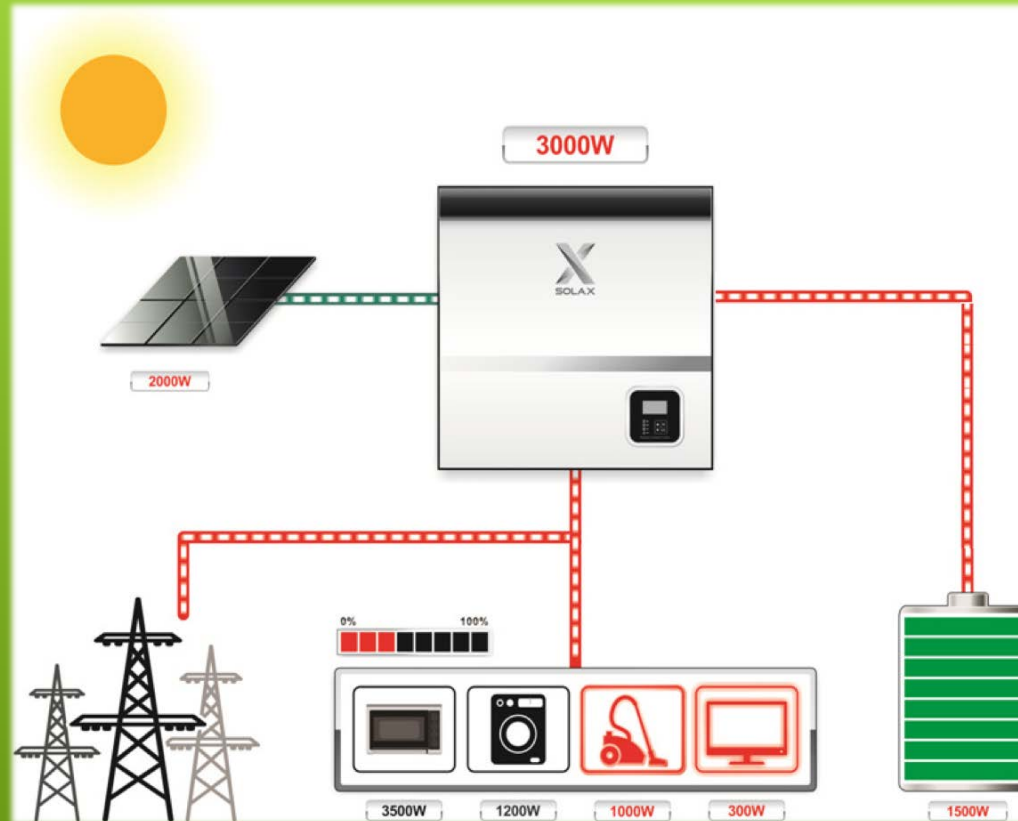
This system assures highest save energy level, positioning Energy srl solution, on the top, for integration of new heating and cooling technologies

Electric storage facilities

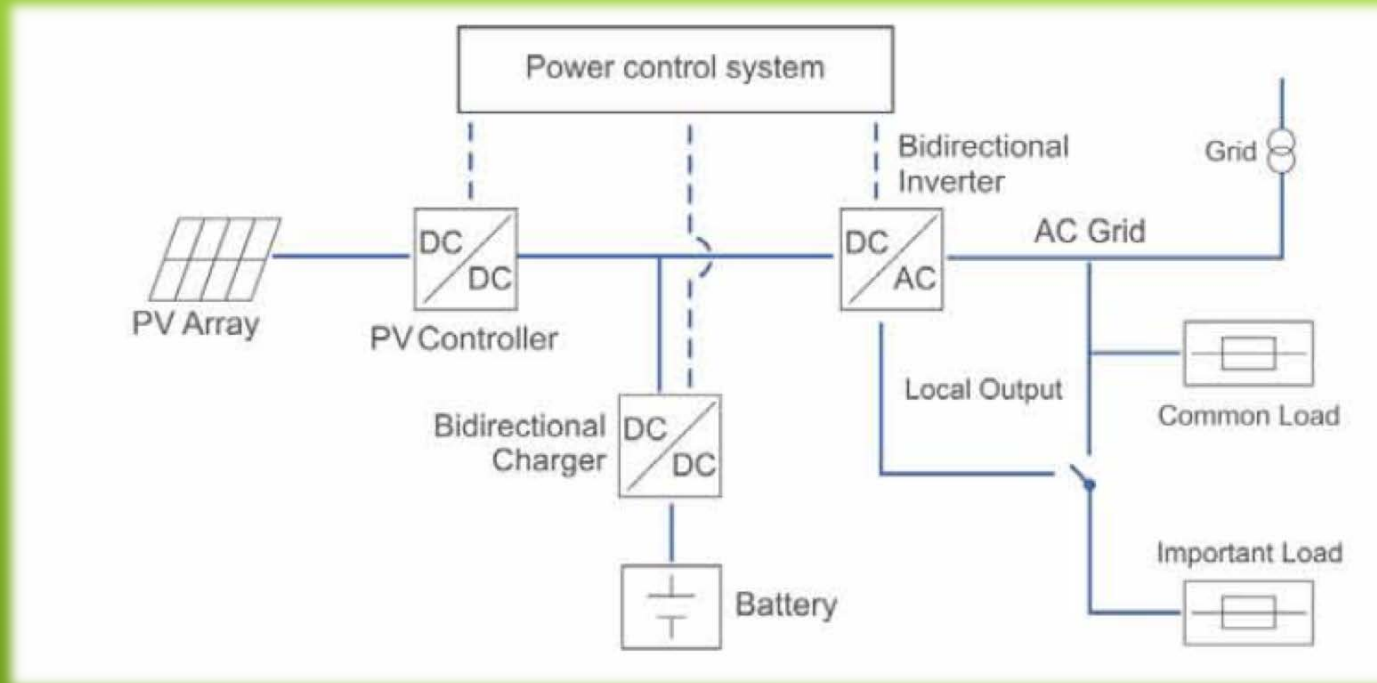


Energy can provide system on/off grid to store the electric power in the battery.

The system can be combined with different type of solar panel and batteries.



Electric storage facilities – X-Hybrid



The system consists of a double trackers pv controller, a bidirectional battery charger up to 100 A – 48 V, a bidirectional inverter that can be integrated also with UPS function to work OFF grid.

The battery used can be Lead Acid, Gel battery or Lithium battery

Electric storage facilities – X-Hybrid



Energy can provide retail solution combining 3 sizes of inverter (3,3 – 4 – 5 kW) with two sizes of bidirectional battery chargers (50 – 100A).

The batteries are installed close to the device in proper frames.



Electric storage facilities – All in rescue solution



Energy can provide integrated solution with complex system which includes: inverter, charger, battery and a multi function electronic which consents an high degree of customisation.

This electronics can communicate and control external devices using EnOcean technology.



Electric storage facilities – All in rescue solution



All In may communicate all the data related to its functioning through WiFi, Ethernet and 3G. This makes it accessible from PCs, SmartPhones and tablets. So whether you are at home, at work or on holiday, it is always possible to check your personal photovoltaic system.

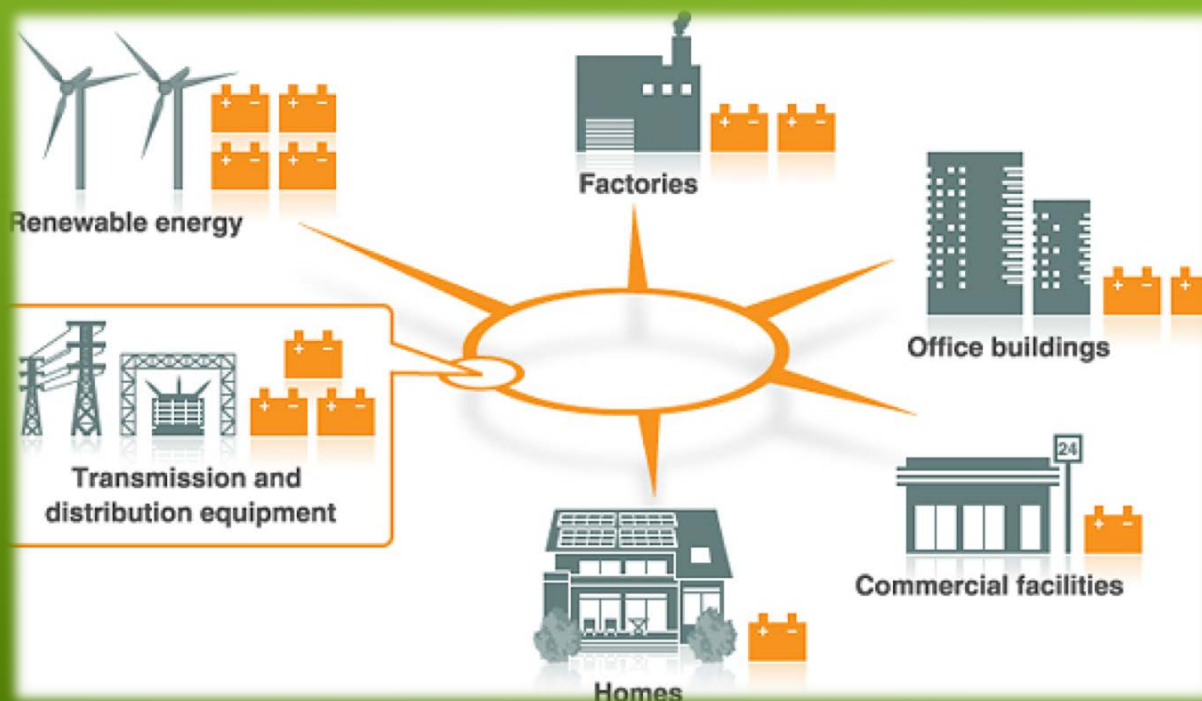


All In can be equipped with remote-controlled sockets, which can be activated in case of a high energy surplus. These sockets can be activated also by PCs, SmartPhones and tablets, so that you will have the full control of the energy flows of your photovoltaic system even if you are not at home.

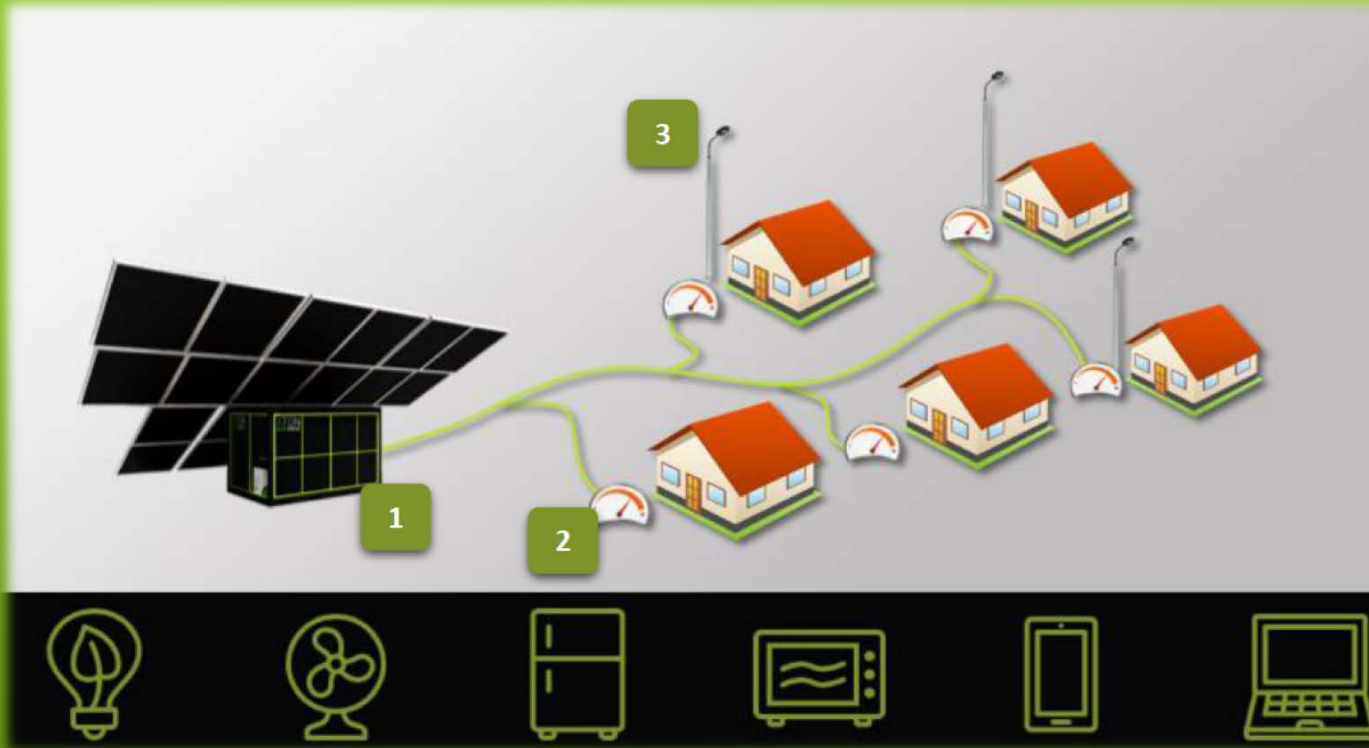
Electric storage facilities – All in rescue solution



All In is designed to be connected to the future intelligent networks: the “so called” Smart grids. For this purpose, All In is equipped with a series of features for the communication and control by the electric network provider, in order to have an optimal introduction of active and reactive power in the network. All this guarantees, in areas with high density of photovoltaic plants, the stability of the grid itself, and moreover it gives to All In the chance of future developments in conjunction with all the innovations that the Smart grids will propose.



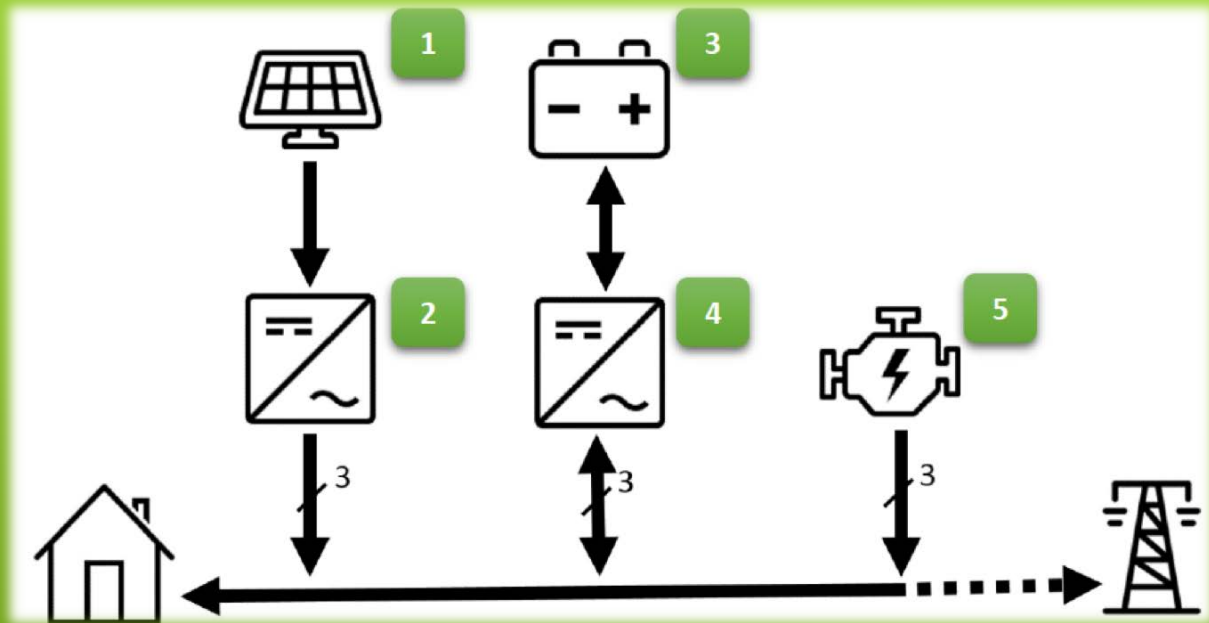
ESS – Energy Storage Solution for Micro Grids



The equipment is a complete photovoltaic system with storage, easy to transport and install, able to create an electrical network in places where this is absent or discontinuous.

It is a system that can fit into a standard 20-foot container, then transported by sea and by air.

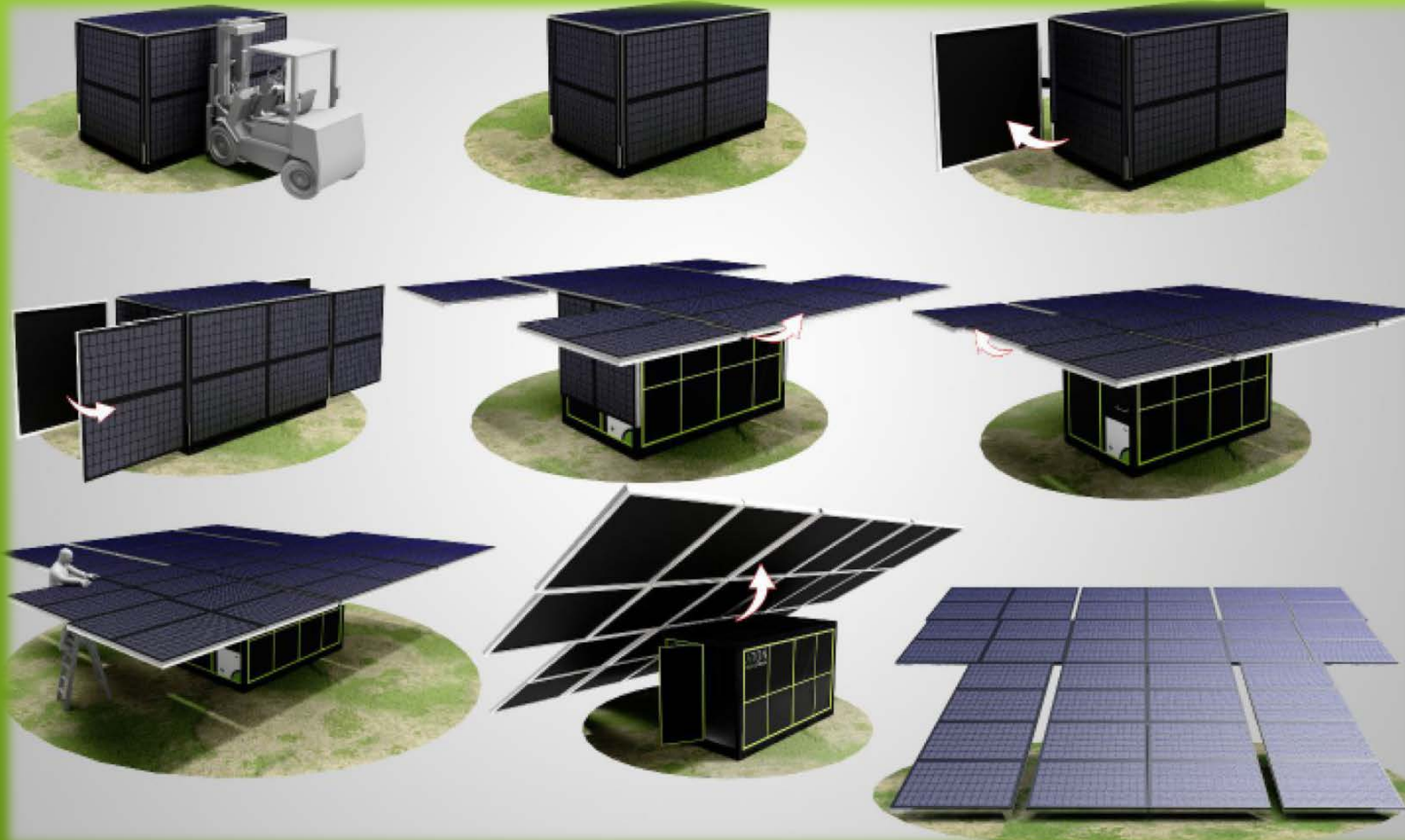
ESS – Energy Storage Solution for Micro Grids



The system is composed of:

1. 10/20 kWp photovoltaic panels;
2. Three-phase solar inverter;
3. BMU with nominal power of 66 kW and recharging capability
4. Lithium battery pac with nominal capacity of 43.6 kWh
5. Diesel Generator

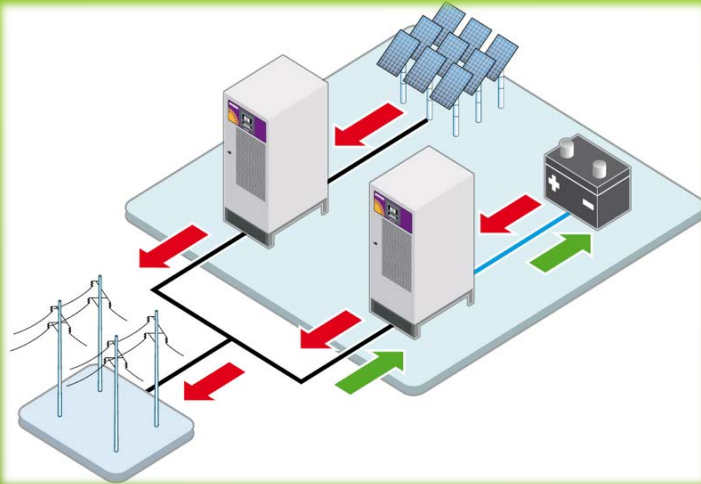
ESS – Energy Storage Solution for Micro Grids



All the components are pre-installed and wired

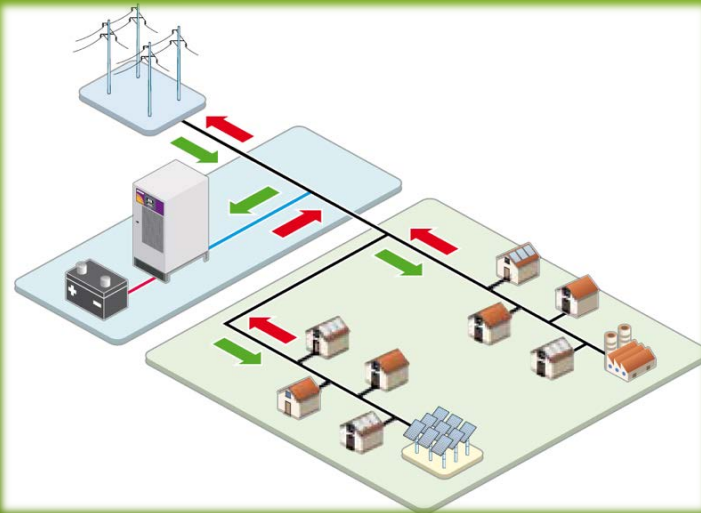
The photovoltaic panels are placed in their final configuration with a few simple maneuvers for the complete final installation.

ESS – Energy Storage Solution for power management on smart grid



ESS manages the intermittence of renewable production PV plants or Wind Turbine by:

- limiting the production to a predefined value;
- injecting energy to compensate solar variations;
- fixing a constant ramp up or a constant ramp down.

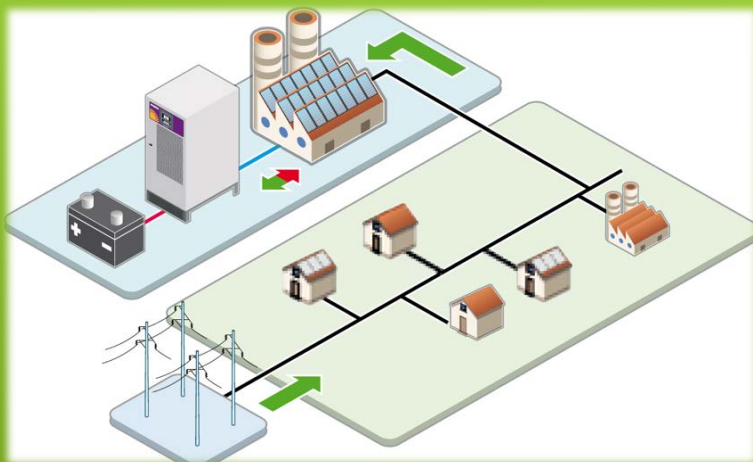


ESS supports the grid, meeting the challenge of demand-response energy balance.

When directly connected to the grid, ESS improves the stability and the management by grid operators thanks to:

- voltage & frequency regulation;
- load shifting;
- peak shaving;
- ancillary services for grid support.

ESS – Energy Storage Solution for power management on smart grid



Behind the meter, EES, reduces peak consumption and maximizes renewable energy self-consumption

The system can limit the impact of increases in the electricity retail price by:

- supplying the load to cut peak demand: peak shaving,
- maximizing the renewable energy self-consumption at building or community level. Any renewable energy surplus is stored in battery system. This stored energy is used later to supply the load.