





Etneo Italia, based in the Technological Pole of Novara, with its Energy Mix & Save division, presents its hybrid solutions for the realization of Smart City projects, rural electrification, self-sufficiency and maximizing self-consumption with the energy produced from renewable sources.



TURBINE EOLICHE
VERTICALI E ORIZZONTALI



Soluzioni per la vera
indipendenza energetica:
eolico, fotovoltaico,
sistemi di accumulo.
Le nuove tecnologie per il





Renewable sources, respect for nature,
intelligent exploitation of sun and
wind from here we started to create
products and solutions that today
serve multiple functions and
applications



Hybrid streetlights with sun and
wind are 100% self-sufficient and
more reliable than those connected
to the electricity grid

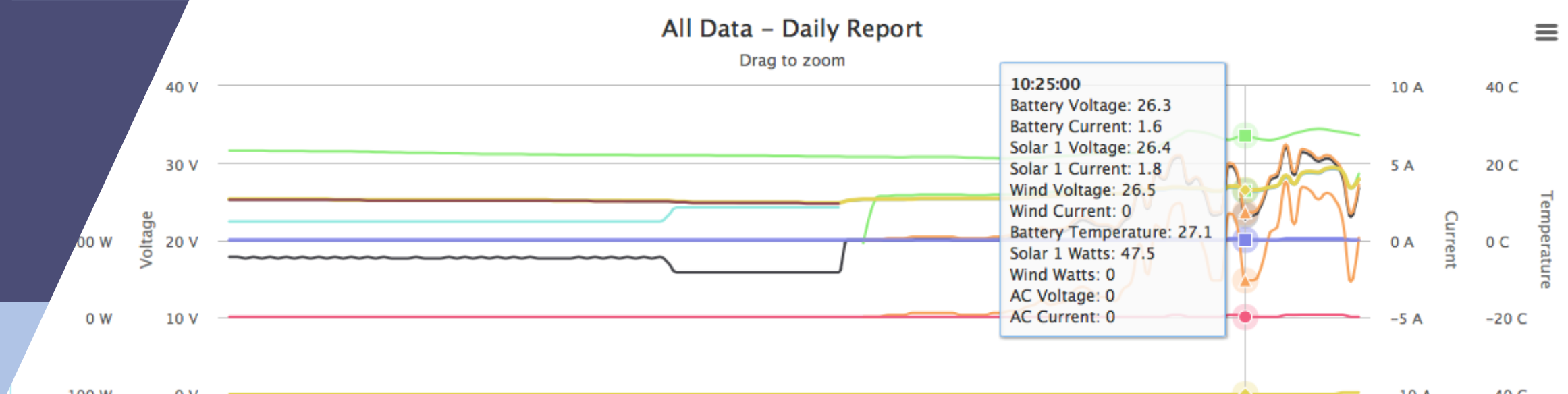


Public administrations around the world are now at the moment of the turning point for energy saving, the simple solution of replacing old lamps with new LED systems leads to a benefit that could still be implemented with the total elimination of the use of the electricity supply.

Lighting, but above all the costs that derive from it, can become a fundamental factor for the development of small energy micro-generation stations.

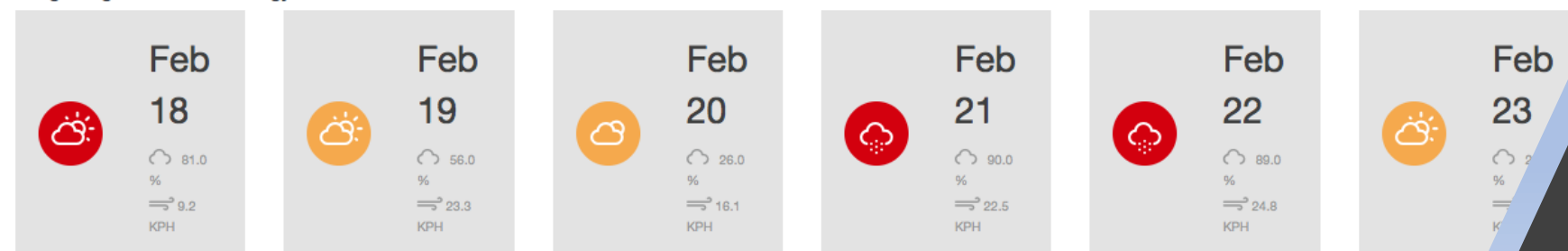
These so-called "micro stations" are nothing more than hybrid street lamps powered by solar sources, wind sources and storage of energy produced in batteries.





The street lamps are always connected to each other via mesh technology and are always connected to the cloud where we can manage them: monitor the energy generation, create alerts and warnings, dim the LED light, etc.

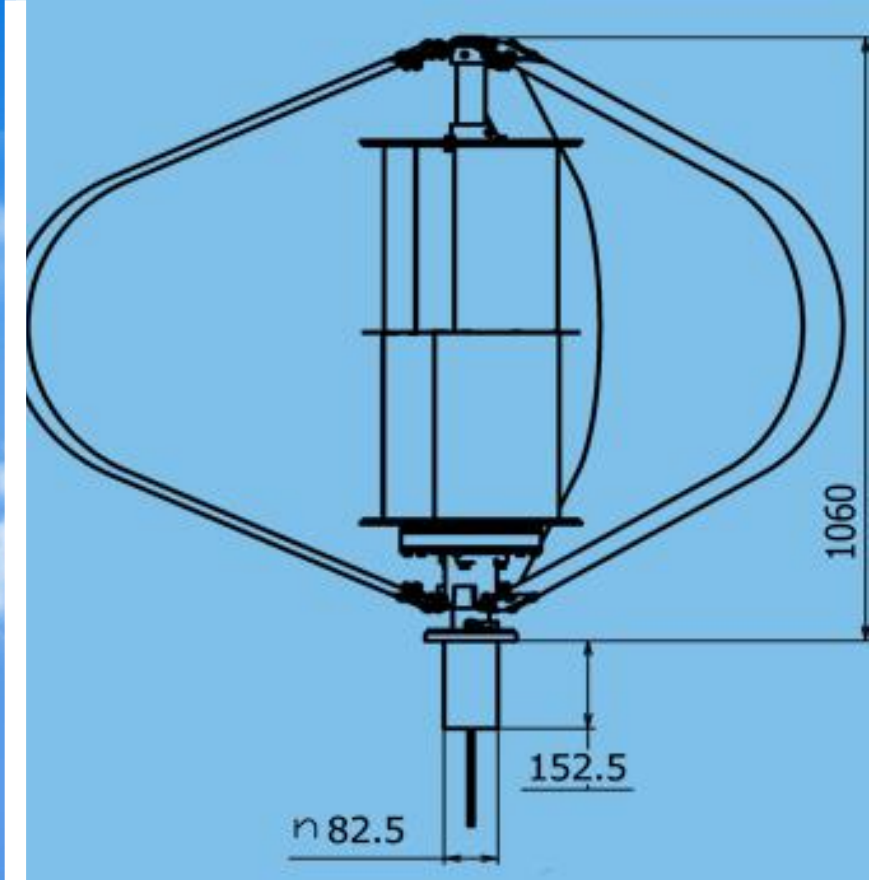
Long Range Forecast & Energy Generation Prediction



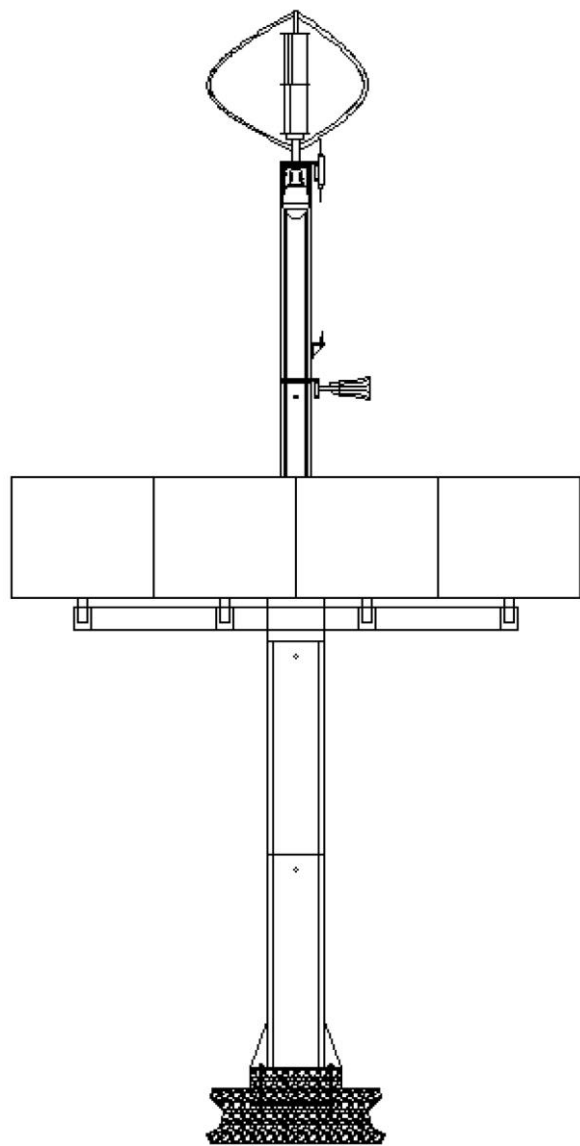
Circular Icon Description

Weather Icons Suggest Weather Type

■ Extremely low energy generation ■ Low energy generation ■ High energy generation



The new modular pole, capable of generating 1.6kW of energy from sun and wind and capable of storing it in a 2.5 A 8kWh capacity lithium battery, is the latest innovative solution, obviously controlled by a cloud server where we can manage all the devices on the pole. This product is suitable for different applications where the loads can be in 24V or 220V. Two examples are: hybrid street lights and charging stations for electric bicycles.



A technology to proactively manage, control and deliver systems outside the network via the Internet. Based on cloud software, the solution includes 7x24 monitoring, proactive maintenance, diagnostic tests and fault determination.

Mini wind farm with 3kW
vertical axis wind turbines to
store energy in battery packs
together with photovoltaic
modules for rural electrification
or to be directly connected to
the grid



The mix of renewable energies is good for the compensation factor



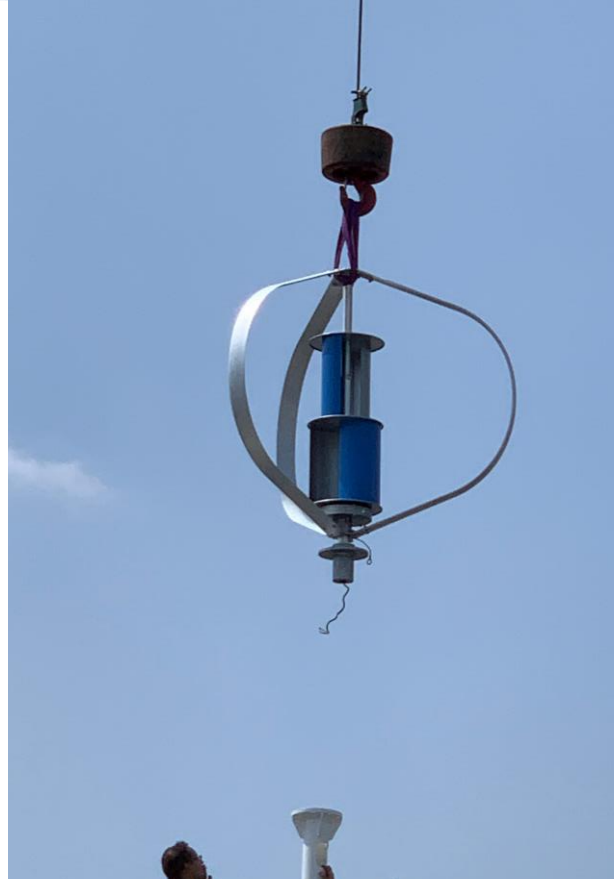
And during the year nothing is wasted thanks to the battery pack!



The logic of the future is based on the mix of energy sources. What we can offer for small/medium commercial use are the 1kW and 3kW vertical axis wind turbines that can be combined in any type of photovoltaic installation together with a storage solution.

Smaller wind turbines are suitable for installation in residential and small commercial storage plants





700W WIND TURBINE - INSTALLATION AT THE TURIN
ENERGY CENTER OF POLITECNICO IN JULY 2019



700W WIND TURBINE -
INSTALLATION AT BUILDING
REGION IN BARI IN 2020



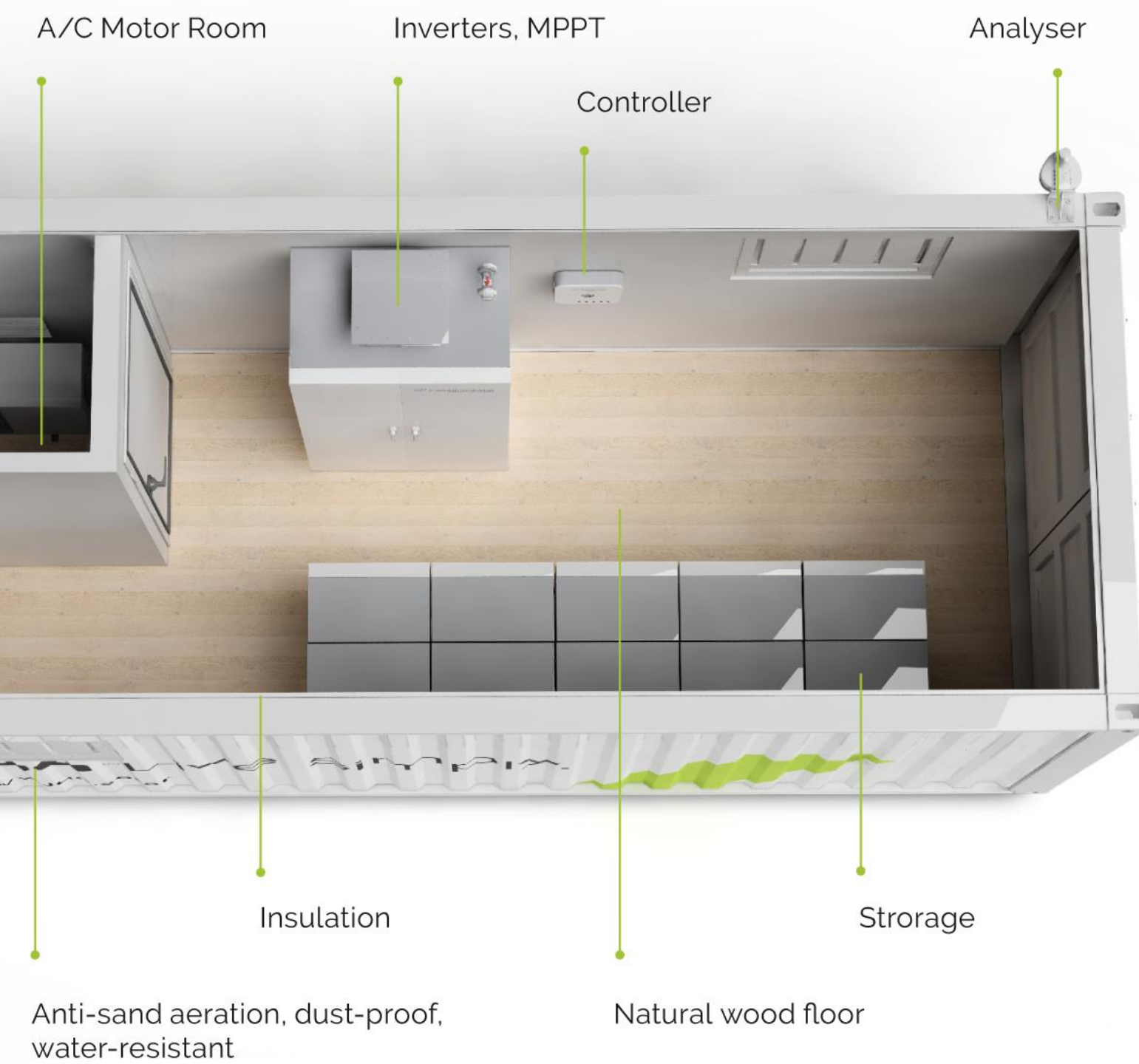
700W WIND TURBINE - HYBRID SYSTEM
INSTALLATION AT SNAM GAS SITE IN 2020



The wall box is able to manage energy from the sun with a charger, energy to loads and from the network with an inverter, all with remote monitoring (just connect the monitoring card and the Ethernet cable). So if you want to add wind, simply complete the installation with the wind turbine controller (able to manage power generation, turbine protection, monitoring via computer or gprs).

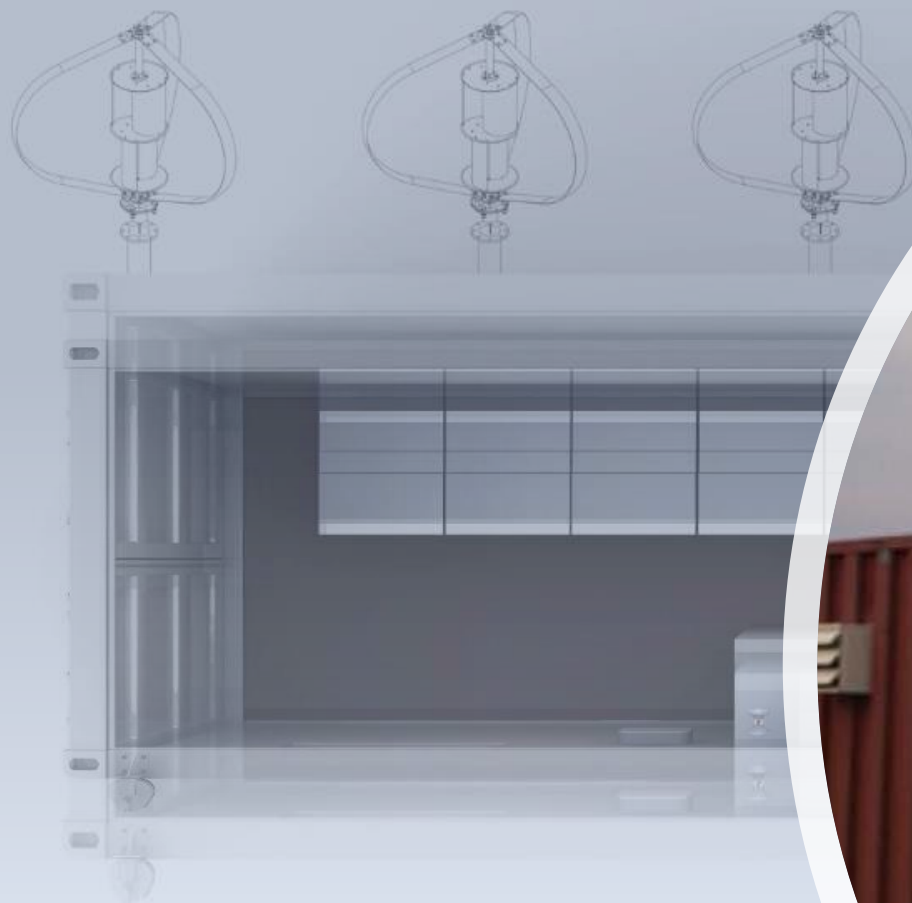
Each container includes an air conditioning system and has low energy lighting and an entrance door with safety locks that allow it to be used as a work area and allow the operators of the generation units to maintain and operate on the elements inside.





WHAT ADVANTAGES?

- Significant savings in the cost of energy generation and the option to cover against fluctuations in the cost of fuel.
- It works both in island mode and in grid connected mode.
- Automatic fault detection, protection and recovery.
- It improves the efficiency of diesel for electricity and the duration of the hereditary genesis and reduces the cost of O&M
- Scalability to add resources and functionality over time and adapt to changing energy needs



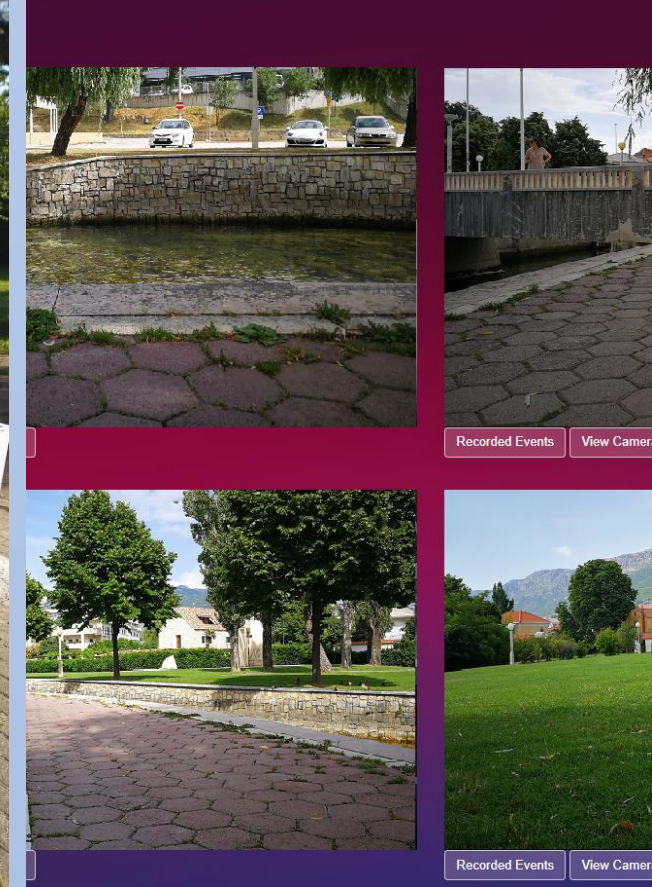
Each 20 "container can include a maximum of 4 vertical 1kW turbines with wiring directly in the container and turbine management via the intelligent mppt controller.



Smart mobility & Smart City

Cities, municipalities and more generally urban areas today need a substantial modification of their structure and the services offered. Soft mobility, on two electric wheels, must become a new lifestyle and both public administrations and private realities must engage in the development and installation of intelligent urban solutions.





Security and promotion of the territory

- Urban environments must be safe to allow people to experience them with greater peace of mind, the CCTV model is equipped with 4 cameras that are always active.
- To increase knowledge of the territories and its products, the model with side display offers the possibility of creating targeted advertising campaigns, shops, clubs, services can be viewed on the 19" display of the Urban + model.



E-bike station all-in-one services

A smart infrastructure or cycle station that offers:

Service recharge cable and wireless phones

Recharge service for bikes and electric scooters,
Bicycle maintenance and repair service with tools and
electric pump

Security with integrated video camera

Web dashboard with control panel for bench
management and complete operation monitoring



Cycle and cycle and pedestrian paths

Redesigning parks and squares with a single infrastructure that offers multiple services is a topic that is not easy to apply, but if we think about the usefulness of a bench we immediately realize how many possibilities there are.

All Steora bench models can be equipped with bicycle racks to make any installation turn into a staging point.

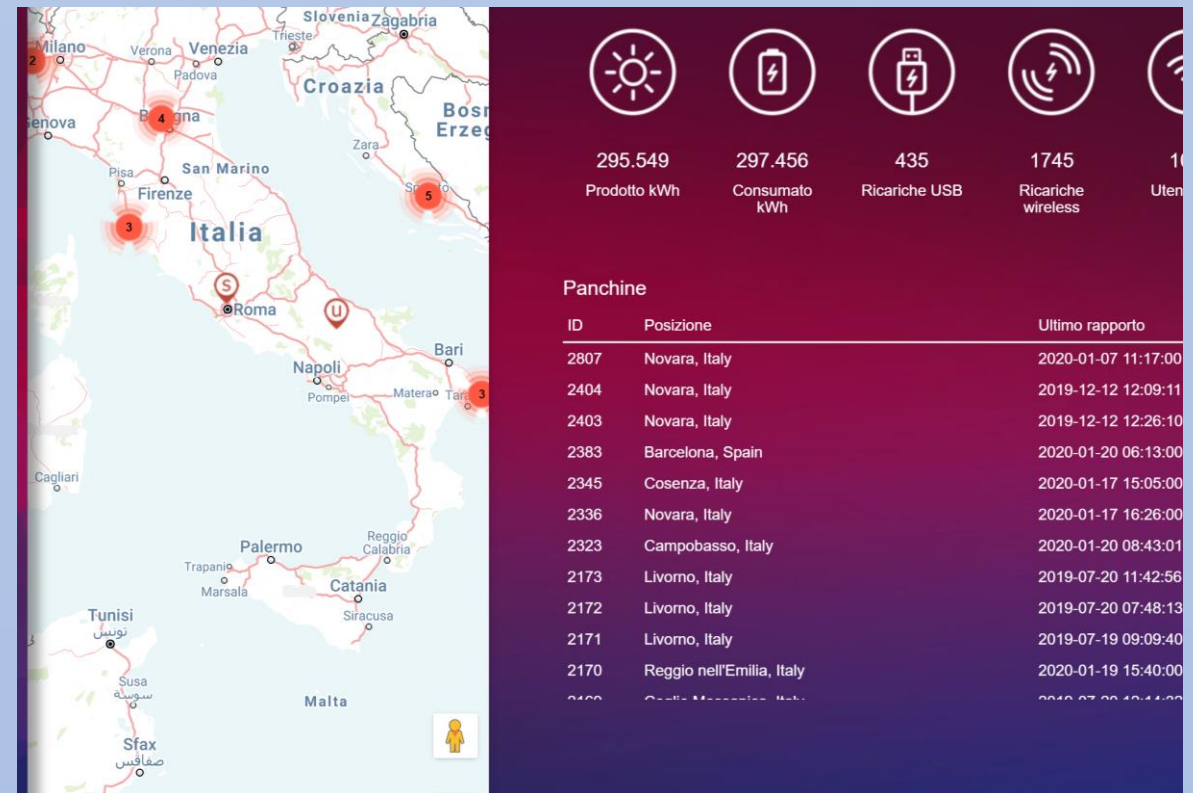


Mountain and hilly paths

Walks along the sea or along the lake

Often the realization of projects in areas that are not purely urban, such as along the sea, paths in the mountains or on the hills, presents a difficulty linked to the lack of electricity on site, the e-bike station model Country equipped with a 280W photovoltaic panel and lithium batteries it can work even in the absence of a network offering self-produced energy.





REMOTE CONTROL

- Dedicated web portal to monitor the functions and use of intelligent urban furniture.
- IoT sensors, counters for refills, parking, internet use ...
- Easy and indispensable system to demonstrate the benefits offered by smart structures.

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Etneo Italia solutions and infrastructures for intelligent urban furniture

