



Storage and conversion of electricity

Applicant	Università degli Studi Padova
Inventors	Alberto Benato, Alex Pezzuolo, Anna Stoppato
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TRL scale



What's needed for?

In the future, power plants will generate electricity from mixed renewable sources. It will therefore necessary to stock energy efficiently when the production of solar or wind power exceeds the demand. This patent describes an efficient, cost effective and easy to install system that stores and converts electrical energy.

The system can store tens of kilowatt hour or thousands of megawatt hour and does not require particular geological structures, as do the alternative compressed air or pumped hydroelectric energy storage systems.

When unpredictable and extremely variable power sources such as wind produce more than required in that moment, the system will be able to store the excess electrical energy. It is a reliable, flexible and low-cost system that has very short ignition cycle.

Advantages

- Flexible and fast operation;
- Short ignition cycle;
- Can be built with former plant components;
- Low-cost.

Applications

- Storage of electrical energy;
- Makes renewable power plants more flexible;
- Reconversion of fossil fuel plants;
- Reuse and reconversion of components and existing sites.