

Why should EMS and control systems be patented?

The main goal of the patent development in EMS and control systems is to improve the battery life and reliable power supply, which is the reflection of the policies and market demand. The future energy landscape will be formed in large part by the energy management system and controlling methods. 6.

How to find the patent documents related to the battery internal system?

The patent documents related to the battery internal system and battery integration system are only considered for the analysis. Initially, a search using the keywords is conducted on the Lens website and in the step-by-step searching, the most relevant patent documents are found.

Is electricity storage innovation tackling the energy transition?

"The rapid and sustained rise in electricity storage innovation shows that inventors and businesses are tackling the challenge of the energy transition.

Are lithium-ion battery energy storage systems sustainable?

Presently, as the world advances rapidly towards achieving net-zero emissions, lithium-ion battery (LIB) energy storage systems (ESS) have emerged as a critical component in the transition away from fossil fuel-based energy generation, offering immense potential in achieving a sustainable environment.

How fast does patenting a battery grow?

Between 2005 and 2018, patenting activity in batteries and other electricity storage technologies grew at an average annual rate of 14% worldwide, four times faster than the average of all technology fields, according to a joint study published today by the European Patent Office (EPO) and the International Energy Agency (IEA).

Do patent applications indicate future technology trends?

As patent applications are filed many months, or even years, before products appear on the market, they are often seen as an early indicator of future technology trends. Since 2000, businesses around the globe have filed more than 65 000 IPFs in the area of electricity storage.

The disclosure relates to particle heaters for heating solid particles to store electrical energy as thermal energy. Thermal energy storage directly converts off-peak electricity into heat for ...

Conversion from the available energy in water into useful electrical energy delivered to the electric grid can be explained by understanding the characteristics of a hydropower plant. The detail of ...

The present invention provides a distributed energy storage system, and applications thereof. In an embodiment, the distributed energy storage system includes power units, wherein each ...

A method for operating an electric energy storage system, comprising a plurality of electric energy storage units, with the following steps is described. At least one state of health variable, in ...

Electricity storage inventions show annual growth of 14% over past decade, joint study by European Patent Office (EPO) and International Energy Agency (IEA) finds Amount of batteries and other energy storage needs to grow fiftyfold by ...

1. A hydro electric energy generation structure adapted for installation in a hydraulic reservoir, the structure comprising: a gravity wall forming an outer perimeter of said structure, wherein said ...