The company with the most energy storage patents

Are patents filed for energy storage technologies reflected in the data?
Patents filed for energy storage technologies - Our World in Data Figures in recent years are subject to a time lag; submitted patents may not yet be reflected in the data. Figures in recent years are subject to a time lag; submitted patents may not yet be reflected in the data. Our Worldin Data Articles by topic Latest About Donate All charts

Which companies have the most advanced batteries patent families?
The ten companies with the largest number of advanced batteries patent families are: Samsung SDI(1,224); Panasonic (1,198); Toyota (1,127); LG Chem (1,120); Bosch (786); Hitachi (641); Sony (559); NEC (428); Nissan (405); and Toshiba (391). Nine of these ten companies are based in Asia,with the tenth (Bosch) based in Europe.

What are the most promising battery storage companies in 2024?
Let's have a look at four most promising battery storage companies in 2024. 1. Alpha ESS Company Profile Alpha ESS is a Chinese company operating worldwide since 2012, they are covering both residential and commercial markets with energy storage solutions based on lithium battery technologies.

What are the best energy storage companies in 2024?
Dozens of companies are now offering energy storage solutions. In this article,our energy storage expert has selected the most promising energy storage companies of 2024 and demonstrates how their technologies will contribute to a smart,safe,and carbon-free electricity network. 1. Alpha ESS2. Romeo Power 3. ESS Inc 4. EOS 1. Enapter 2. LAVO 3.

What are energy technology patents?
Patents provide early indications of technological developments that may transform the economy and drive the energy transition. The H2020 data portal has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952363. Energy Technology Patents Data Explorer - Data tools.

Which patent families are based on VTO-funded advanced batteries Research?
Many of the patent families in Table 6 are relatively new, and are examples of how VTO-funded advanced batteries research has helped form part of the foundation for recent advances made by leading companies. Samsung SDI has the two patent families at the head of this table (representative patents US #9,979,019 and US #9,368,791).

Figure 16 - Percentage of Leading Geothermal Energy Company Patent Families Linked via Citations to ... gas exploration, energy storage, materials handling and wastewater treatment. More detailed findings from this

report include: o In geothermal energy technology, in the period 1976-2018, we identified a total of 3,408 ...

A cryogenic energy storage system comprising a liquefaction apparatus for liquefying a gas to form a cryogen, wherein the liquefaction apparatus is controllable to draw power from an external power source to liquefy the gas, a cryogenic storage tank in fluid communication with the liquefaction apparatus for storing cryogen produced by the liquefaction ...

Energy Fuel Cell Technologies Office. ... o Private companies have the most applications overall, leading in fuel cell and production & delivery applications o National laboratories have the most storage patents (equal to private companies and universities combined) 0 100 200 300 400 500 600 700 800 900 1000 1100.

"The company sees a rising tide of latecomers" deliberate and blatant unauthorised use of its patents across a wide range of commercialised products, including batteries for consumer electronics, energy storage systems (ESS), and electric vehicles (EV)," it said today (24 April).

The report covers three distinct technologies - fuel cells, hydrogen production, and hydrogen storage. These are considered to be separate technologies. 906 fuel cell patents are confirmed to be associated with HFTO funding (571 U.S. patents, 154 EPO patents, and 181 WIPO patents).

An energy storage system and method that enables gravity-based energy storage to have a significantly larger capacity in a single shaft for given capital cost and thus an improved cost per unit energy for large scale energy storage as well as enabling continuity of power input and output at an external connection point across the extent of the system"s ...

With the increasing focus on clean energy and sustainable technologies, patents in areas such as renewable energy, energy storage, and environmental technologies hold significant value. Strategic Considerations for Maximizing Patent Value. To maximize the value of a patent, organizations should consider the following strategies:

With 14,354 Energy Storage related patents published between 2002 and 2022, LG Corp holds the most number of Energy Storage patents across the world, of which 53.0% was contributed by its subsidiary LG Life Science LTD. The second largest number of Energy Storage related patents were published by Toyota Motor Corp with 6,625 patents.

of patents related to fuel cells, hydrogen production, delivery, and storage resulting from HFTO R& D funding* o In FY2017 the scope was expanded to include analysis of patent applications resulting from HFTO-funded R& D U.S. Patent data has been tracked from the inception of DOE activities in 1977

CAMPBELL, Calif, January 10, 2024 -- Tigo Energy, Inc. (NASDAQ: TYGO), a leading provider of intelligent solar and energy storage solutions, today announced the expansion of the Company"s patent

portfolio in rapid shutdown technology with the issuance of U.S. Patent No. 11,855,578. This patent continues Tigo"s commitment to significantly increase solar safety by ...

According to GlobalData"s company profile on Enphase Energy, Smart energy mgmt systems was a key innovation area identified from patents. Enphase Energy"s grant share as of September 2023 was 47%. Grant share is based on the ratio of number of grants to total number of patents. Ac coupled battery storage system for energy management

Patent data can help inform governments about their comparative advantage at different stages of a technology"s value chain and shed light on innovative companies and institutions that may be in a position to contribute to economic recovery and ...

Abstract: An energy storage system converts variable renewable electricity (VRE) to continuous heat at over 1000° C. Intermittent electrical energy heats a solid medium. Heat from the solid medium is delivered continuously on demand. Heat delivery via flowing gas establishes a thermocline which maintains high outlet temperature throughout discharge.

Patents indicate Danish stronghold in green energy. Green Power Denmark has - with the help of the Danish Patent and Trademark Office - reviewed the green patents that have been published at the European Patent Office (EPO) and the US Patent Office (USPTO). Danish companies have obtained 551 green patents at the European Patent Office in 2021.

With 185 Energy Storage related patents published between 2002 and 2022, Johnson & Johnson holds the most number of Energy Storage patents in the global Packaging sector, of which 35.7% was contributed by its subsidiary Cilag GmbH International.

A detailed review of the most promising energy storage companies of 2024 and all you need to know for investors and technology enthusiasts. Skip to content. Aquion Energy ... (Znyth® Battery) built on 21 patents. Thanks to a high level of innovation, their energy storage system has a 15-year life duration, can work under extreme temperature ...

Companies with Energy Storage Patents "The intellectual capital developed with VTO funding was found to have a broad influence with knowledge spillover in multiple application areas." BCE Report p. 7-3 VTO Ranks Second Among the Top Ten Companies in Total Citations . 13 0.00. 0.50. 1.00. 1.50. 2.00. 2.50. Toyota. LG Chem.

To discover the key companies in the field of grid-connected LIB ESS the top 10 inventors and the assignees are presented in Fig. 8. Palo Alto Res ct from Palo Alto Research Centre Inc. has the highest number of patent documents (5). ... Number of patents; Y02E 60/10: Energy storage using batteries: 51: H01M 10/0525: Lithium-ion batteries: 29 ...

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Types of Organization Receiving Patent Awards. Most number of patent awards: 1. Private companies (lead in fuel cells and production/delivery) 2. National laboratories (lead in storage) 3. Universities (mainly fuel cells and production/delivery) National Laboratories Private Companies Universities Total Storage 80 28 26 134 Production/Delivery ...

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