

What is a new energy vehicle policy?

Policies covering the sales stage placed maximum emphasis on new energy vehicle subsidies while focusing on the demonstration role of public institution procurement. In the use stage, the most important topic was the construction of charging infrastructure and the environment of new energy vehicles.

Are power batteries the core of new energy vehicles?

Power batteries are the core of new energy vehicles, especially pure electric vehicles. Owing to the rapid development of the new energy vehicle industry in recent years, the power battery industry has also grown at a fast pace (Andwari et al., 2017).

How will a lack of policies affect the NEV battery industry?

As a core component of NEVs, the battery itself is market-driven by policies, and the lack of continuity in supporting policies will leave the NEV battery industry without supporting policies in the long run, which may slow down the development of the whole industry.

What are the challenges faced by the lithium-based new energy industry?

Due to the complex nature of the development of the lithium-based new energy industry, industry regulation faces many challenges. For example, the prices of some intermediate products and materials fluctuate sharply and even go beyond the normal range in China in 2022.

Why do we need a new battery subsidy policy?

In addition to annually reducing the amount of subsidy for public and private purchases, these policy adjustments also imposed more stringent technical requirements (e.g., energy density, driving range, etc.) for receiving subsidies in order to promote the development of core battery technologies by the domestic firms (policy aims at low-levels).

Is China's new energy vehicle battery industry coevolutionary?

Empirically, we study the new energy vehicle battery (NEVB) industry in China since the early 2000s. In the case of China's NEVB industry, an increasingly strong and complicated coevolutionary relationship between the focal TIS and relevant policies at different levels of abstraction can be observed.

The U.S. National Science Foundation (NSF) provides data on countries' shares of total value added in the motor vehicle, trailer, and semi-trailer industries (unfortunately, it does not break out EVs separately) and it finds that China's share of value added in the automotive industry increased nearly fivefold from 6 percent in 2002 to roughly 28 percent by 2019.

Since 2009, China has become the largest new vehicle market in the world. To address the energy security and

urban air-pollution concerns that emerge from rapid vehicle population growth, China has initiated the ...

In this article, we aim at filling the research gaps in existing studies by (1) establishing an analytical framework for providing policy recommendations to promote the sustainable development of lithium-based ...

As the core and power source of new energy vehicles, the role of batteries is the most critical. This paper analyzes the application and problems of lithium-ion batteries in the current stage. By comparing lithium-iron phosphate batteries with ternary lithium-ion batteries, the medium and long-term development directions of lithium-ion batteries are put forward. And the ...

Due to the limited life of lithium batteries, the earliest batch of new energy vehicle lithium batteries in the market is at the threshold of elimination. How to effectively recycle and use lithium batteries has become an unavoidable environmental and social issue. This paper first briefly introduces the current status of China's new energy vehicle and battery industry, then ...

The Current Situation and Prospect of Lithium Batteries for New Energy Vehicles. Tianhao Wang 1. Published under licence by IOP Publishing Ltd Journal of Physics: Conference Series, Volume 2014, 2021 The 10th International Conference on Engineering Mathematics and Physics 1-4 July 2021, Barcelona, Spain Citation Tianhao Wang 2021 J. Phys.: Conf. Ser. ...

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Guangdong has made remarkable progress in exporting the three major tech-intensive green products, or the 'new three' -- new energy vehicles (NEVs), lithium-ion batteries, and photovoltaic products, which witnessed year ...

The Chinese government will have to vigorously investigate and promote the new energy market, increase power battery performance, improve NEVs quality, and control ...

The U.S. Department of Energy's (DOE's) new Battery Policies and Incentives database, developed and managed by the National Renewable Energy Laboratory (NREL), is helping to address the batteries need. The database is intended to help advance the adoption of zero-emission vehicles by providing information and data that inform the production of EV ...

Keywords Power battery · Industry policy · Policy characteristics · Product life cycle · Text analysis 1 Introduction Power batteries are the core of new energy vehicles, especially pure electric vehicles. Owing to the rapid development of the new energy vehicle industry in ...

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lithium-ion battery industry: The coevolution of battery technological innovation systems and ...

The evolution of cathode materials in lithium-ion battery technology [12]. 2.4.1. Layered oxide cathode materials. Representative layered oxide cathodes encompass LiMO_2 ($M = \text{Co}, \text{Ni}, \text{Mn}$), ternary ...

This paper, through the example of the new energy vehicle battery and untreated battery environmental hazards, put forward the corresponding solutions. New energy vehicle batteries include Li cobalt acid battery, Li-iron phosphate battery, nickel-metal hydride battery, and three lithium batteries. Untreated waste batteries will have a serious ...

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