Analysis of the reasons for the surplus of new energy batteries

Why should we support new technology in power battery recycling?
Third,we should support new technologies. The power battery technology is in the development stage. The recycling technology must keep pace with the times,improve the cascade utilization rate and material extraction rate,and maximize the effective utilization of waste batteries.

What is Power Battery reusing?
Power battery reusing has three aspects strategic values such as protecting the environment and eliminating potential safety problems of retired power batteries,realizing resource recovery and reducing the risk of battery material supply and reducing the use cost of power battery and then improving the competitiveness of NEVs.

Will the power battery industry decompose the responsibility along the supply chain?
The vehicle enterprises will definitelydecompose the responsibility along the supply chain,so the whole power battery industry will be affected [10]. Therefore,relevant enterprises need to think ahead,lay out,and prepare in advance to meet the requirements of national laws and regulations.

How to reduce the cost of reusing power batteries?
With the decrease of the battery price and the maturity of the reusing technology,the revenue from the reuse of retired power battery will be further improved. The government and related enterprises should increase the research of battery materials and recycling technologyso as to reduce the price of batteries and the cost of recycling.

Should China reuse retired power batteries?
Based on the research and evaluation of the critical issues in the reusing of retired power batteries, this paper proposes some policy suggestions for the government and enterprises. First, China is about to usher in the peak period of retired power batteries, and mandatory recycling is imminent by the government.

How encroachment and subsidies affect battery recycling?
Both the channel encroachment and subsidy strategies are conducive to promoting battery recycling,where the channel cost and the subsidy level are key factors affecting enterprise profits and social welfare. And high subsidies are always conducive to battery recycling,but this will undoubtedly bring severe fiscal stress to the government.

To improve the recovery rate of power batteries and analyze the economic and environmental benefits of recycling, this paper introduced the SOR theory and the TPB and constructed the system dynamics model of power battery recycling for new-energy vehicles. ...

From this analysis, it can be inferred that controlling the carbon footprint of the power battery production

process can be achieved through two primary means: by optimizing the production process of batteries with a high single carbon footprint and reducing their carbon footprint value, as well as by adopting batteries with lower individual ...

This report analyses the emissions related to batteries throughout the supply chain and over the full battery lifetime and highlights priorities for reducing emissions. Life ...

With the rate of adoption of new energy vehicles, the manufacturing industry of power batteries is swiftly entering a rapid development trajectory.

Such refurbished batteries can offer more affordable options in emerging applications such as renewable energy integration, peak shaving, EV charging, microgrids, and large-scale energy storage, among others . In this regard, in the near term, the second-life approach is a rewarding option for the players in the recycling market to grow. Moreover, by ...

With the expansion of the new energy vehicle market, more and more batteries will be scrapped. This paper will study how to use the "Internet +" recycling mode to reasonably recycle these batteries in order to reduce environmental pollution and resource waste.

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 ...

Additionally, since NEVs entered the market in 2007, many have reached the end of their lifespan, leading to a peak in battery replacement needs (Li et al., 2020; Zhang and Qin, 2018)(Li et al., 2020; Zhang and Qin, 2018).However, China lacks a comprehensive and effective system for recycling NEV batteries.

To improve the recovery rate of power batteries and analyze the economic and environmental benefits of recycling, this paper introduced the SOR theory and the TPB and constructed the system dynamics model of power battery recycling for new-energy vehicles. Through dynamic simulation, the following main conclusions were obtained.

In 2016, the total energy loss of abandoned water of Sichuan Province was 28.73 × 10 9 kW h, of which the generation-, line-, and market-side causes account for 7.76%, 11.68%, and 80.56% of the energy loss, respectively. Therefore, the market-side causes are the main cause for the abandoned water problem. Such market-side causes primarily ...

With the expansion of the new energy vehicle market, more and more batteries will be scrapped. This paper will study how to use the "Internet +" recycling mode to reasonably recycle these ...

Analysis of the reasons for the surplus of new energy batteries

This report analyses the emissions related to batteries throughout the supply chain and over the full battery lifetime and highlights priorities for reducing emissions. Life cycle analysis of electric cars shows that they already offer emissions reductions benefits at the global level when compared to internal combustion engine cars. Further increasing the sustainability ...

We examine a power battery closed-loop supply chain, taking subsidy decisions and battery supplier channel encroachment into account. We investigate optimal prices, ...

In March 2019, Premier Li Keqiang clearly stated in Report on the Work of the Government that "We will work to speed up the growth of emerging industries and foster clusters of emerging industries like new-energy automobiles, and new materials" [11], putting it as one of the essential annual works of the government the 2020 Report on the Work of the ...

The negative impact of used batteries of new energy vehicles on the environment has attracted global attention, and how to effectively deal with used batteries of new energy vehicles...

For this reason, this paper systematically studies the key issues for NEV power battery reusing in China, including the strategic value, main reusing modes, echelon utilization value, recycling value, and overall value analysis of power battery reusing.

Web: https://doubletime.es