# Section 3 Management Discussion and Analysis

## 1. Industry Overview of the Company During the Reporting Period

The company must comply with the disclosure requirements for "Rubber and Plastic Products Manufacturing" under "Chemical Industry-Related Business" as outlined in the "Self-Regulatory Guidelines for Listed Companies No. 3 - Industry Information Disclosure" of the Shenzhen Stock Exchange.

1. Industry Overview and the Company's Position within the Sector

With the growing global focus on green, low-carbon, and sustainable development, more than 150 countries have set ambitious carbon neutrality goals to date. At the United Nations Climate Change Conference, nearly 200 nations jointly reached the landmark "UAE Consensus," marking the first time in nearly three decades that countries have agreed on transitioning energy systems from fossil fuels to clean energy. Nations worldwide are advancing the construction of new energy industries. Under China's national strategic goals of carbon neutrality and peaking carbon emissions, the new energy vehicle and energy storage industries continue to grow, albeit at a slower pace, with expanding production capacities across various sub-sectors intensifying competition. As one of the four key materials in lithium batteries, lithium battery separators are widely used in electric vehicles, consumer electronics, energy storage batteries, and other fields, playing a pivotal role in driving the development of the new energy industry in China and globally.

According to EV TANK's *China Lithium-ion Battery Separator Industry Development White Paper (2025)*, by the end of 2024, the company's market share had remained the highest for seven consecutive years. As a leading enterprise in the lithium battery separator industry, the company possesses significant competitiveness in global production capacity, product quality, cost efficiency, and technological R&D. It has successfully entered the supply chain systems of the vast majority of global mainstream lithium battery manufacturers, covering the three major fields of power batteries, consumer batteries, and energy storage batteries, with diverse application scenarios. In 2024, the company maintained its leading position in the industry, ranking first in both production capacity and shipment volume of separator products.

2. Industry Development Trends

The global new energy vehicle industry and energy storage market continue to grow, although the growth rate of power lithium batteries has slowed down temporarily, with intense competition across the sector. However, the scale and demand of the energy storage market have seen significant increases. According to SNE Research, global power battery installations reached 894.4 GWh in 2024, a year-on-year increase of 27.2%. Statistics from ICC Xinluo indicate that global energy storage battery shipments hit 314.7 GWh in 2024, up 60% year-on-year. The continuous expansion of the lithium battery market has driven the development of lithium battery separators. Yet, the supply in the separator industry has been concentrated in recent years, leading to fierce competition. Coupled with downstream lithium battery companies tightening cost controls, separator product prices have declined, putting pressure on the profitability of the entire industry. EV Tank's "China Lithium-ion Battery Separator Industry Development White Paper (2025)" shows that China's lithium-ion battery separator shipments reached 22.8 billion square meters in 2024, a 28.6% increase year-on-year.

( 1) The diaphragm industry has a vast market space, with high requirements for scale and localized support

From a global perspective, China has taken a leading position in the electrification and intelligent development of automobiles, while overseas regions such as Europe and America are also following suit with their own plans. Given the vast growth potential in the new energy vehicle and lithium battery markets, particularly in energy storage, GGII data indicates that by 2030, global shipments of new energy passenger vehicles, commercial vehicles, and energy storage batteries are expected to exceed 2000GWh, nearly 700GWh, and 1400GWh, respectively. Emerging application areas, such as construction machinery, ships, aircraft, and "intelligence-driven application scenarios," will also generate demand exceeding hundreds of GWh by 2030. The penetration rate of new energy vehicles overseas remains relatively low compared to the domestic market, suggesting that their future market growth is projected to outpace that of the domestic market. As an indispensable key raw material in lithium battery manufacturing, lithium battery separators rely on stable and reliable localized production capacity and product quality as the cornerstone for separator companies to secure large-scale orders from downstream customers. By continuously deepening partnerships with global leading clients and leveraging its global production capacity, product quality, worldwide service capabilities, and industry-leading technological R&D and patent advantages, the company is well-positioned to further increase its global market share and solidify its leading position in the global industry.

( 2) Enhance innovation capabilities and actively optimize product and customer structures

As the core component of new energy vehicles, lithium batteries are seeing increasingly stringent requirements from manufacturers regarding key performance aspects such as safety, range, and lifespan, as the market shifts from policy-driven to market-driven. The continuous advancement of lithium battery technology has raised higher demands for the performance enhancement and technological iteration of separator products. Therefore, separator companies that master core technologies and possess independent R&D and innovation capabilities will enjoy better development prospects and opportunities. Additionally, the application scenarios for lithium batteries are continuously expanding, with future sectors like the low-altitude economy and robotics expected to further increase the market size for lithium batteries and lithium battery separators.

The competition in the separator industry is becoming increasingly fierce, with technological innovation, the development of new products, and iterative product upgrades being one of the trends for separator companies. Coating inorganic ceramic materials, PVDF, aramid, and other materials onto the base film can effectively enhance the puncture resistance, heat resistance, and other properties of lithium battery separators, improving battery safety and lifespan. Compared to base films, coated films better meet the critical performance requirements of lithium batteries for separators and offer higher product value-added. Therefore, separator companies that master the core technology of high-quality coated films have greater development prospects, and increasing the shipment volume of coated films contributes to the improvement of overall profitability. At the same time, continuous development of new products, such as ultra-thin separators and fast-charging separators, is essential.