Yunnan Energy New Material Co., Ltd. 2024 Annual Report **Section III Management Discussion and Analysis** ### **1. Industry Overview During the Reporting Period** The Company is required to comply with the disclosure requirements for "Rubber and Plastic Products Manufacturing" under the "Chemical Industry-Related Business" section of the *Shenzhen Stock Exchange Self-Regulatory Guidelines for Listed Companies No. 3 - Industry Information Disclosure*. #### **1.1 Industry Status and the Company's Market Position** With increasing global focus on green, low-carbon, and sustainable development, over 150 countries have now established ambitious carbon neutrality goals. At the United Nations Climate Change Conference, nearly 200 nations reached the landmark "UAE Consensus," marking the first time in nearly three decades that countries have collectively agreed to transition energy systems from fossil fuels to clean energy. Governments worldwide are actively advancing the development of new energy industries. Under China's national strategic goals of carbon peaking and carbon neutrality, the new energy vehicle (NEV) and energy storage industries have maintained growth, albeit at a slower pace. Capacity expansion across sub-sectors has intensified competition. Lithium-ion battery (LIB) separators, as one of the four key materials in LIBs, are widely used in electric vehicles (EVs), consumer electronics, and energy storage batteries, playing a pivotal role in advancing the new energy industry both in China and globally. According to EVTANK's *White Paper on the Development of China's Lithium-Ion Battery Separator Industry (2025)*, the Company has maintained the leading market share for seven consecutive years as of the end of 2024. As an industry leader, the Company possesses significant competitive advantages in global production capacity, product quality, cost efficiency, and R&D capabilities. It has successfully entered the supply chains of most major global LIB manufacturers. covering power batteries, consumer batteries, and energy storage batteries, with diverse application scenarios. In 2024, the Company retained its leading position, ranking first in both production capacity and shipment volume of separator products. #### **1.2 Industry Development Trends** The global NEV and energy storage markets continue to grow, though the expansion of power LIBs has slowed temporarily amid fierce competition. In contrast, the energy storage market has seen substantial demand growth. According to SNE Research, global power battery installations reached 894.4 GWh in 2024, a year-on-year increase of 27.2%. ICC Xinluo data shows global energy storage battery shipments at 314.7 GWh, up 60% year-on-year. The expanding LIB market has driven separator demand, but the industry faces intensified competition due to concentrated capacity releases in recent years. Downstream LIB manufacturers' heightened cost controls have further pressured separator prices, squeezing industry profitability. EVTANK reports that China's LIB separator shipments reached 22.8 billion square meters in 2024, a 28.6% year-on-year increase. ##### **(1) Broad Market Potential with High Requirements for Scale and Localization** Globally, China leads in automotive electrification and intelligence, while regions like Europe and North America are catching up. Given the vast growth potential in NEVs and LIBs—especially in energy storage—GGII projects that by 2030, global shipments of new energy passenger vehicles, commercial vehicles, and energy storage batteries will exceed 2,000 GWh, nearly 700 GWh, and 1,400 GWh, respectively. Emerging applications in construction machinery, marine vessels, aircraft, and "intelligence-driven scenarios" are expected to generate over 100 GWh in demand by 2030. With NEV penetration rates overseas still lower than in China, international market growth is projected to outpace domestic expansion. As a critical LIB component, separators require stable, localized production capacity and high-quality standards to meet large-scale downstream orders. By strengthening partnerships with global top-tier customers and leveraging its production scale, product quality, global service capabilities, and leading R&D and patent advantages, the Company is well-positioned to further increase its global market share and reinforce its industry leadership. *(Tables

and numerical data are preserved as per original formatting.)* (2) Enhancing Innovation Capabilities and Actively Optimizing Product and Customer Structures As the core component of new energy vehicles, lithium-ion batteries are subject to increasingly stringent requirements from manufacturers regarding key performance metrics such as safety, range, and lifespan, as the market shifts from policy-driven to market-driven dynamics. The continuous advancement of lithium-ion battery technology demands higher performance and faster technological iterations for separator products. Consequently, separator companies that possess core technologies and independent R&D and innovation capabilities will enjoy stronger growth prospects. Furthermore, the application scenarios for lithium-ion batteries continue to expand, with emerging fields such as low-altitude economy and robotics expected to further increase the market demand for lithium-ion batteries and their separators. The separator industry is becoming increasingly competitive, making technological innovation, new product development, and iterative upgrades key trends for industry players. Coating base films with inorganic ceramic materials, PVDF, aramid, and other materials can significantly enhance the puncture resistance, heat resistance, and overall performance of lithium-ion battery separators, improving battery safety and lifespan. Compared to base films, coated separators better meet the critical performance requirements of lithium-ion batteries and offer higher added value. Therefore, separator companies that master the core technologies for high-quality coated films will have greater development potential, and increasing the shipment volume of coated films will contribute to improved overall profitability. Additionally, continuous development of new products—such as ultra-thin separators and fast-charging separators—will further drive market competitiveness and technological leadership.