

Initiation Report

ERAYAK POWER SOLUTION GROUP INC.



Erayak Power Solution Group Inc. – Emerging Power Solutions Provider

Targeting Large Market

Erayak Power Solution Group Inc. (NASDAQ: RAYA)

Share Price: \$0.87

Valuation: \$4.67



Key Statistics

52 Week Range	\$0.65 - \$3.88
Avg. Volume (3 months)	14.31K
Shares Outstanding	12.45M
Market Capitalization	\$10.83M
EV/Revenue	0.6x
Cash Balance*	\$7.03M
Analyst Coverage	1

*Cash balance as of December 2022

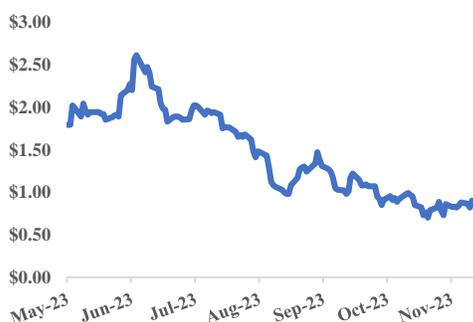
Revenue (in \$mm)

Dec - FY	2022A	2023E	2024E
H1	11.48	12.56	14.06
H2	15.43	16.77	18.72
FY	26.91	29.33	32.78

EPS (in \$)

Dec - FY	2022A	2023E	2024E
H1	0.24	0.11	0.13
H2	0.14	0.14	0.15
FY	0.38	0.25	0.28

Stock Price Chart (in \$)



Investment Highlights

- Diversified Product Portfolio Supported by Strong R&D Capabilities** - Erayak's growth revolves around its ability to advance with continuous innovation and evolving market needs. The company has successfully managed to adapt to changing consumer demands and technological trends, creating a diversified portfolio of inverters, generators, and chargers. Leveraging its strong research and development capabilities, Erayak has been upgrading its product technology and designs across multiple product segments, thus providing its customers with state-of-the-art energy-efficient solutions that meet or exceed industry standards. The company's R&D efforts and capabilities have even been recognized by the Zhejiang provincial government, allowing its entry into China's National High-Tech Enterprise Program. The company's pure and modified sine wave inverter series and portable generator series find their application across various residential and commercial avenues, including the automotive market, agriculture, electrical appliances, outdoor and power tools, and renewable energy. The numerous applications of its diversified portfolio are further bolstered by its global reach and wide online presence.
- Multiple Growth Catalysts** - Erayak has managed to report robust growth numbers in the past two years, with revenue growing at a CAGR of 38.05%. This has been made possible by management's ability to capitalize on multiple demand drivers, new product launches, and its widening and deepening presence across various geographies. These factors have historically driven the company's growth and have allowed expansion of the business. The company's ongoing commitment to R&D enables it to continuously launch cutting-edge products, solidifying its market position and meeting diverse power needs. The forthcoming launch of the power station series is a testament to this dedication, further expanding their product range while driving growth. Simultaneously their international presence, accentuated by strategic e-commerce partnerships like the Amazon Accelerator initiative, allows them to tap into multiple markets and build strong brand recognition. Lastly, their agility in capitalizing on short-term demand spikes - evident from the surge in generator sales during the global energy crisis - coupled with a strategic focus on long-term trends like China's impending heavy truck replacement cycle, and mobile and outdoor lifestyle collectively offers a strong, multi-faceted growth strategy for Erayak.
- Burgeoning Industry** - The global inverter and generator markets are crucial components of the energy sector, and both are poised for steady growth over the next decade. The inverter market is expected to expand at a CAGR of 15.8%, reaching \$73.27 billion by 2032, driven by the increasing adoption of renewable energy, an increase in the number of solar rooftop installations, favorable government policies, and technological advancements. On the other hand, the generator market is projected to grow at a CAGR of 5.6% to reach \$54.8 billion by 2032. This market is buoyed by the demand for reliable power sources in regions with unstable electricity supply. Diesel generators remain the preferred choice, especially in residential applications, and are expected to maintain their market dominance. Both markets are significantly influenced by rising electricity demands, particularly in emerging Asian economies.
- Valuation** – We have valued the company using discounted cash flow (DCF) as our primary valuation approach. Using a discount rate of 9.4% and a long-term growth rate of 1.5%, our valuation model yielded an intrinsic value of \$4.67 per share contingent on successful execution by the company.

Company Description

Erayak Power Solution Group Inc. specializes in the R&D, manufacturing, and distribution of power solution products, including inverters, generators, and battery chargers. Established in 2019 and based on Wenzhou, China the company serves multiple markets, including agricultural, industrial, and recreational sectors.

Company Overview

Erayak Power Solution Group Inc., incorporated in the Cayman Islands in 2019, has established itself as a leading provider of power solution products. The company primarily operates through its wholly-owned subsidiaries, Zhejiang Leiya and Wenzhou New Focus, in the People's Republic of China (PRC). Erayak specializes in the manufacturing, research, and development (R&D), and wholesale and retail of a comprehensive range of power solution products. This includes sine wave and off-grid inverters, inverter and gasoline generators, battery and smart chargers, and custom-designed products. These products are used extensively in a variety of sectors, including agricultural and industrial vehicles, recreational vehicles (RVs), electrical appliances, and outdoor living products. This wide application of products demonstrates the company's broad market reach and its ability to cater to diverse customer needs.

Erayak specializes in the manufacturing, research, and development (R&D), and wholesale and retail of a comprehensive range of power solution products

The company's primary office is strategically located in Zhejiang province, enabling it to serve a large customer base throughout the PRC. Moreover, Erayak has successfully expanded its reach to international clients, showcasing its global aspirations and its ability to compete in the international market. Erayak's product portfolio is diversified, with inverters, chargers, and gasoline generators constituting the majority of its revenue. The company's products are manufactured in factories operating under quality management systems accredited by the International Organization for Standardization (ISO 9001:2015). They comply with various international safety and environmental standards, reflecting the company's commitment to quality, safety, and environmental sustainability.

Erayak Overview

Erayak is a leading manufacturer, designer, and exporter of high-quality products in the power supply industry.

Our products are used in agricultural and industrial vehicles, recreational vehicles, electrical appliances, and outdoor living products



Product Portfolio

- Sine wave and off-grid inverters
- Inverter and gasoline generators
- Battery and smart chargers
- Custom-designed products

ISO 9001 Quality Management | System Certified in 2012

Exhibit 1: Company Overview. Source: Company, Diamond Equity Research

Erayak's business model is built-to-order (BOT), which maximizes flexibility in production scheduling, material procurement, and delivery to meet unique customer demands. The company has adopted a multi-step, full-service system to ensure quality and client satisfaction. This includes a thorough process of customer consultation, technical evaluation, sample creation, quality

inspection, and final product delivery. This customer-centric approach ensures that each product is tailored to meet the specific needs of the customer, enhancing customer satisfaction and loyalty.

Erayak's primary objective is to create value by sustaining growth in earnings and cash flows from operating activities over various economic cycles. To achieve this objective, the company focuses on several key strategies. These include optimizing its portfolio and product mix to respond to market conditions, providing superior quality products and customer service, focusing on efficient manufacturing and cost management, strengthening key supplier relationships, executing pricing strategy to pass through underlying costs, and cooperating with prominent eCommerce stores.

Corporate Structure

The corporate structure of Erayak Power Solution Group is a direct holding structure, which does not include a variable interest entity (VIE). At the top of this hierarchy is Erayak Power Solution Group Inc. (Erayak), which is listed in the U.S. Erayak wholly owns Wenzhou Wenjie Information Technology Co. Ltd. (Erayak WFOE) and other domestic operating entities indirectly through holdings of Erayak Power Solution Limited (Erayak BVI), a British Virgin Islands company, and Erayak Power Solution Hong Kong Limited (Erayak HK).

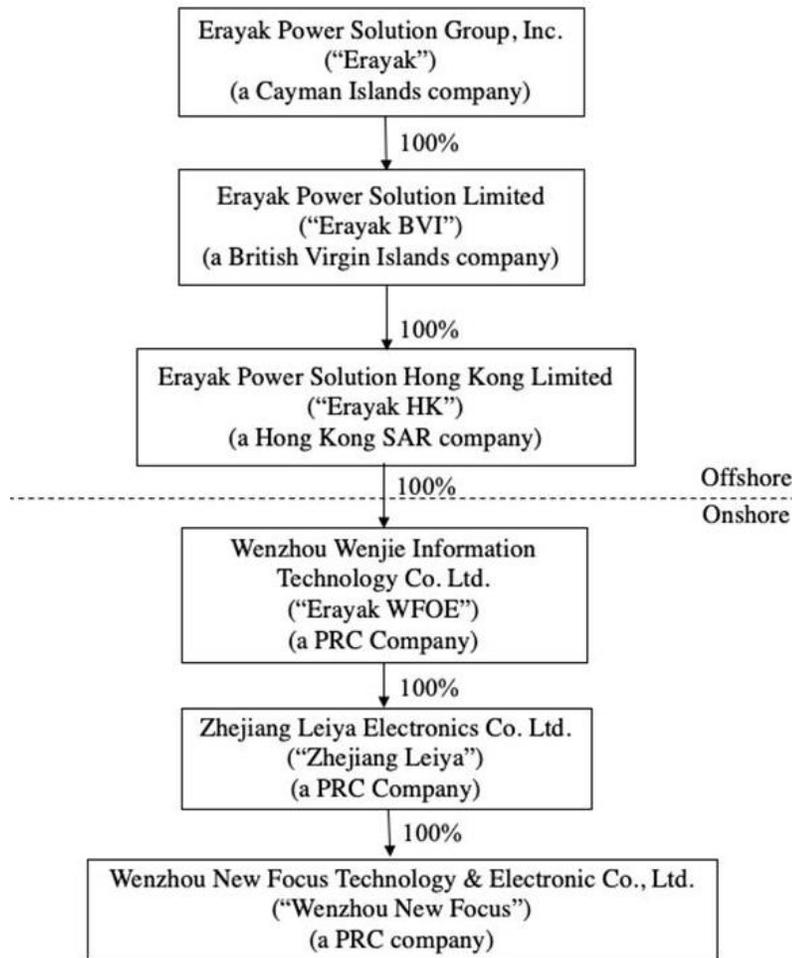


Exhibit 2: Corporate Structure. Source: Company Filings

In terms of fund transfers within the group, the proceeds from foreign investors obtained at the close of this offering can be legally transferred to Erayak BVI and then to Erayak HK, following which they can be transferred to the subordinate operating entities via Erayak WFOE. These movements comply with the laws and regulations of the People's Republic of China (PRC).

If the company decides to distribute dividends, the process will start from Zhejiang Leiya, transferring dividends to Erayak WFOE, which then transfers them to Erayak HK in accordance with PRC laws. Erayak HK would then transfer the dividends to Erayak BVI, which finally transfers them to Erayak. From Erayak, the dividends would be proportionally distributed to all shareholders, regardless of their geographical location.

Continuous Innovation Resulting in a Diversified Product Portfolio

In today's dynamic world of power solutions, Erayak is an emerging player that distinguishes itself with a meticulously crafted portfolio that resonates with innovation and versatility. From its roots in Zhejiang, China, to its widespread international presence, Erayak has steadily built a reputation for reliable and diverse power solutions. Boasting a diversified portfolio that finds its application across numerous sectors reflects on the company's ability to adapt continuously to evolving industry needs. Their broad product range, coupled with an emphasis on customization, highlights their understanding of diverse customer requirements. This is further supported by the state-of-the-art production workshop and an in-house research and development center that signifies the company's commitment to developing innovative products while ensuring the highest standards of quality.

Erayak has created a diversified portfolio of innovative power solution products leveraging in-house research & development capabilities

In-House Research & Development Center

Awarded "High-Tech Enterprise" status by the provincial government.

A qualification for China's National High-Tech Enterprise Program, and eligibility for up to a 10% corporate income tax break and certain deductions related to intangible assets, such as obtaining patents in the R&D process.



Staffed With Industry Experts

Core employees have more than 15 years industry experience

Industry Partnerships

Established long-term cooperation with leading international laboratories

Built-to-Order Business Model

Maximizes flexibility in production scheduling, material procurement, and delivery to meet customers' unique demands

Exhibit 3: Erayak's R&D Overview. Source: Company

The company's significant investment in research and development, creating a cutting-edge portfolio of products, has earned it an esteemed recognition of High-Tech Enterprise from the

Zhejiang provincial government. This accolade enabled the company’s entry into China’s National High-Tech Enterprise Program. Notably, participants in this program can benefit from a reduced corporate income tax of up to 10% and enjoy certain allowances for intangible assets, such as those stemming from patent acquisition during R&D activities. Owing to its investment in research and development activities, the company has secured a diverse collection of 21 issued patents in China, providing a broad level of protection to the company’s wide range of product portfolio. This diversified portfolio of power solution products can be categorized into inverters, chargers, gasoline generators, and custom products, each of which has been designed to cater to specific energy needs.

The company has secured a diverse collection of 21 issued patents in China, backed by its continuous investment in research and development activities

Inverter Product Range

Erayak’s expertise in power solutions is evident in its diverse range of inverter products that have contributed more than half of the company’s total revenue in the past three financial years. Designed to cater to both individual and industrial needs, these inverters efficiently convert energy from direct current (DC) to alternating current (AC) for varied needs and niches.

Product Series	Description	Specifications	Primary Applications
12v Inverters	Convert 12v DC to usable AC	Pure Sine Wave (75W-3000W);	Power electronic equipment, motor appliances.
	More economical compared to pure sine wave	Modified Wave (75W-3000W)	Mobile phones, laptops, cameras, game chargers
24v Inverters	Convert 24v DC to AC	Pure & Modified Sine Wave (75W -3000W)	Large vehicles
Vehicle Inverters	Provide power to vehicles	≤1000W; Modified & Pure Sine Wave	Mobiles, tablets car, fridges, other car appliances
Erayak Car Inverter (Pioneer Series)	Intelligent, with diverse designs	Modern design, variety of paintings, temperature control	Upgraded power solutions in vehicles
Erayak Car Inverter (Flat Panel Series)	High-power, unique technical strengths	Strong 130% power ductility	Advanced vehicle power requirement
Erayak Modified Sine Wave Inverter Series	Classic to modern designs with varying functionalities	Classic, Tank, and Genius series	Wide global acceptance, versatile applications
Erayak Pure Sine Wave Inverter (Classic Series)	High-quality current output	Bluetooth Control Function; Classic RV Model	High-end products, RVs, mobile power supplies, air conditioners, refrigerators etc.
Inverter Generators	Convert power with efficiency.	AC (Portable & Frame types, 750W-5000W); DC (For systems with 12v/24v/48v batteries)	Household, outings trucks, RVs, and outdoor operations.

Erayak’s pure sine wave and modified sine wave inverter series have numerous applications across residential, industrial, and recreational markets

Exhibit 4: Erayak’s Off-grid Inverter Product Portfolio. Source: Company Filings

Erayak’s power solution portfolio stands out for its sophisticated range of inverters and products, reflecting both diversity and innovation. The company’s inverter offerings span from pure and modified sine-wave inverters to vehicle-specific models, ensuring a vast market coverage.

Notably, their sine wave inverters highlight Erayak’s prowess in the technological domain and require specialized expertise carrying lucrative profit margins.

In terms of global outreach, Erayak’s distribution channels have made significant inroads into pivotal markets such as Europe, America, and the Middle East. The far-reaching popularity of their classic series of modified sine wave inverters in these regions is a strong indicator of the company’s diversification strategy. The product boasts an impressive use base of approximately 5 million and an annual growth of 1.2 million users in recent years. Such a substantial figure not only indicates product acceptance but also suggests a brand that continues to resonate with evolving customer preferences. The company’s drive to integrate modern technologies, as seen with the rollout of Bluetooth-enabled pure sine wave inverters, showcases its commitment to staying ahead of the curve. Their tailored solutions, such as those developed for the RV market, highlight their astute market observations. With a burgeoning RV market globally, Erayak’s targeted inverters are well poised to capitalize on this growth segment.



Exhibit 5: Erayak’s Inverter Product Range Source: Company Filings

Looking forward, Erayak’s meticulous product planning indicates a phased launch of the car inverter Pioneer Series from 2021-2025, and the comprehensive array of inverters slated for release is evidence of an emerging brand that is competitively positioning itself in the market. By catering to diverse market segments, from compact vehicles to industrial trucks, Erayak has expanded its opportunity set.

Gasoline Generators

Erayak’s second category of product pipeline includes gasoline generators. Catering to a wide range of power needs. The company has established itself as a reliable power solutions provider in situations that require uninterrupted power. Whether it’s for homes, vehicles, or the outdoors, Erayak has a generator tailored for every requirement.

Product Series	Description	Specification	Application
Inverter Generator (Hercules Series)	A fusion of frequency conversion tech and traditional generator power leads to efficient output.	Frequency conversion technology; Pure waveform power; Parallel connection capability; Can use gasoline or diesel.	Best suited for household power needs, scalable power through parallel connections.
Dual Fuel Series	A robust generator series that accommodates diverse fuel types, ensuring uninterrupted power supply	Multi-fuel compatibility (LPG, gasoline, CNG, diesel); Open-frame design; Electronic starters; LCD display; Mobility features	A versatile choice for areas with varied fuel availability; optimal for larger homes and small enterprises
On-board generator (Mobile Series)	Tailored for vehicle integration, this series guaranteed a steady power supply for the always-on-the-move	24V generators; designed for seamless vehicle integration; Equipped with a remote-control system	Perfect fit for vehicles such as trucks, trailers, and RVs; caters to the needs of frequent vehicle users

Exhibit 6: Erayak’s Gasoline Generator Product Portfolio Source: Company Filings

Erayak’s portable generator series is efficient, quiet, and capable of generating pure sine wave output. The device boasts a durable and lightweight design and is equipped with multiple safety features

Erayak’s range of gasoline generators has stood out as a reliable, consistent, and efficient source of power solutions tailored to specific needs. The energy crisis across Western economies, especially in Europe, has been a blessing in disguise, with revenue from gasoline generators growing more than seven times in 2022. Mobile blackouts and power cuts across multiple regions in Europe have underscored the need for dependable power solutions, with Erayak’s generator portfolio establishing itself as a leading choice for a convenient and uninterrupted power source.



Exhibit 7: Erayak’s Portable Inverter Generator. Source: Company Website

Erayak generator series product sales witnessed a year-on-year growth of 664% in 2022

Battery Charger and Power Product Portfolio

Battery chargers are fundamental to the modern digital age, ensuring that our devices and machinery are fuelled and ready for use whenever we need them. From simple household gadgets to more substantial industrial equipment, the continuity and efficiency of operations often hinge on the reliability of these power sources. As technology evolves, the demand for more efficient, durable, and versatile battery chargers and power solutions grows. The company entered this product segment by providing basic chargers, evolving into offering more advanced products like the backup series.

Erayak has a vast portfolio of battery chargers, power products, and portable power stations

Product Series	Description	Specification	Application
Battery Charger	Used to charge batteries efficiently	6v and 12v chargers, current ranging from 1A to 12A	Ideal for charging low-voltage batteries using an eight-stage charging cycle
Power Bank (Backup Series)	Outputs pure sine wave current, emulating the mains	Uses battery power for a quieter and lighter design	Portable power needs; battery preservation and maximization
High-Pressure Washer (Storm Series)	Employs gasoline to produce high-pressure water columns	Power up to 4000W; the pressure of up to 220bar	Cleaning applications, including vehicles, houses, and farms

Exhibit 8: Erayak’s Battery Charger Product Portfolio. Source: Company Filings

Power Station Series

On its road to continuous innovation and introduction of new products, Erayak recently unveiled its upcoming power station series that stores power in its battery and then uses an inverter to convert the stored DC power to AC for use by regular devices.

- **Fast Recharge:** With a launch expected in September 2023, the BDS Portable Power Station Series sets itself apart with its rapid recharging capability. In just 2 hours, users can replenish 80% of the battery through a wall outlet and 60W PD USB-C port. Additional recharging options include an AC adaptor at home, a car outlet during travels, and an Erayak solar panel.
- **Reliable Power:** This device is designed to provide a consistent and safe power supply. It uses lithium-ion battery packs with varying capacities - 315Wh, 504Wh, 917Wh, and 1023Wh. Notably, the power provided is a pure sinewave, ensuring stability and safety for the devices. Even with such power, the devices remain portable, with the lightest version weighing just 7.1 pounds (3.25 Kg).
- **Versatile Outputs:** The product’s versatility stems from its ability to charge itself and up to six other devices simultaneously. It comes equipped with two AC outlets, a 60W USB-C port, a fast charge 3.0 port, a standard USB-A port, and a DC port. This ensures compatibility with a wide range of devices, from drones and laptops to cameras.
- **Eco-friendly Charging:** Eco-conscious users will appreciate its compatibility with Erayak solar panels. With the in-built MPPT controller, it ensures maximum power

absorption from the solar panels, speeding up recharging and making it an excellent companion for outdoor activities like tent camping or overland journeys.



Exhibit 9: Erayak's Power Station Series. Source: Company Filings

Erayak has started accepting pre-orders for the BDS Power Station Series on its website. The base model, ideal for everyday users with standard power needs, is priced at \$350. Other products in the series priced at \$660, \$1,200, and \$1,590 come with enhanced capacity, greater power output, and greater output options.

Erayak's Growth Drivers

Erayak is targeting to become a premier power solutions brand that delivers a wide range of high-quality standardized and customized power solution products. The company's ability to adapt to dynamic market environments by launching new and advanced products, while widening and deepening its presence in key markets remains its primary growth strategy. Furthermore, the company has historically shown to capitalize on demand trends, supplementing its primary growth strategy. Erayak Power Solutions' future growth can be described as a blend of innovation, understanding market needs, and strengthening its brand identity.

- New Product Launches:** Erayak's commitment to innovation is evident in the company's significant investment in research and development, resulting in the creation of a diversified portfolio. The company's extensive product portfolio, from sine wave inverters to battery chargers and custom-designed products, remains a go-to solution for a vast range of power challenges. The advancement and new launches within its product portfolio are evident within the company's inverter product range, which evolved from the Erayak Modified Sine Wave Inverter (Classic Series) to the Modified Wave Inverter (Tank Series) and the Erayak Modified Sine Wave Inverter (Genius Series). The upcoming launch of BDS Powerstation is also a testament to the company's emphasis on continuous research and development, showcasing its commitment to developing state-of-the-art solutions that cater to modern energy needs, while setting industry standards for reliable power solutions.
- Brand-Building Enabled by Widening and Deepening Presence:** Erayak, even though an emerging player, hasn't restricted itself to the Chinese Market. The company boasts a presence in a multitude of countries, including Japan, England, Germany, France, Spain, Switzerland, Sweden, the Netherlands, the U.S., Canada, Mexico, Australia, Dubai, and 9 other countries. The company recently announced that it has initiated plans to expand its presence in the Middle East and South Asian regions. They are in the planning stages to begin construction of a warehouse in the Middle East and have been working to form ties with local wholesalers. Recognizing the strong demand in these economically growing regions, Erayak plans to conduct a thorough market study. Furthermore, in Pakistan, the company plans to establish an office and warehouse near Lyallpur Galleria in Faisalabad, having already recruited local staff and experienced significant demand following initial product shipments. Erayak continues to deepen its geographical footprint across these geographies, tapping into diverse markets with varied power solution demands. In an effort to increase product visibility, the company has established a significant presence across e-commerce channels that primarily include Amazon.com and JD.com. Erayak's products have made a mark on Amazon, securing spots within the top ten bestsellers on Amazon's German website, Amazon.de. The company's growing presence across the platform captured the attention of Amazon, leading to Erayak's selection for the Amazon Accelerator initiative. This program by Amazon is curated to identify potential businesses and bring them under Amazon's exclusive "platform brand," enhancing the brand's outreach and drawing in a more expansive clientele. Moreover, an essential aspect of this collaboration ensures that Erayak's products gain exclusive representation across various

The prospective expansion trajectory of Erayak Power Solutions is fundamentally anchored in three core pillars: pioneering technological ingenuity, keen market insight, and fortifying its brand equity

European Amazon platforms. With a deepening geographical presence and a widening sales channel, the company has been establishing a recognizable brand identity anchored to qualitative and reliable power solution offerings. Moreover, the company's built-to-order (BOT) approach ensures products that are not only tailored to specific market or consumer needs but also deepen brand loyalty and customer satisfaction.

- **Leveraging Strategic Partnership to Expand Market Opportunities** - Erayak is in talks with potential strategic partners to broaden its market presence and product offerings. The company is engaging with a diversified Chinese energy company, exploring opportunities to collaborate in the domestic and international energy solution business and share industry expertise, technology, and experience. Additionally, Erayak is discussing a partnership with a UK-based trading company known for distributing brands like Stanley Black and Decker. This prospective partnership would enable both firms to focus on the production of electrically powered clean energy products. These discussions towards solidifying crucial partnerships will enhance Erayak's product range while allowing it to reach a wider customer base.
- **Capitalizing on Demand Trends:** Erayak's recent financial results are indicative of the company's ability to capitalize on demand trends. The company's sales of gasoline generators grew by 664% in 2022, predominantly attributed to the energy crisis, particularly in European Union countries. This adaptability not only demonstrates Erayak's keen market insight but also solidifies its position as a responsive and forward-thinking player in the power solution industry. This extreme growth in the company's revenue might stabilize, but we expect normalized and steady growth given the fact that the energy crisis might have receded in the past few months; it has certainly not ended.¹ Capitalizing on this short to medium-term trend, Erayak believes a more sustainable growth driver would be to build on the trend of mobile lifestyles, from RVs to yachts and outdoor activities. The company has positioned its products as essential companions for those on the move, ensuring that its product lineup resonates with contemporary lifestyles and emerging societal trends. Another major growth driver is the impending replacement cycle in China's heavy truck industry, which is expected to be fuelled by the logistics sector and stricter emission standards. Heavy trucks usually have a replacement cycle of 5-8 years, and the current fleet is poised for significant turnover. In 2026. It is expected that 1.11 million trucks will be replaced, compared to 580,000 in 2021. As trucks modernize and adopt more electronic systems, including potential shifts toward electric or hybrid models, the demand for reliable on-board power conversion and backup solutions like inverters and generators is likely to surge. Erayak is expected to capitalize on both new installations and replacement demand, positioning itself as a go-to provider for high-quality power solutions products.

¹ <https://www.reuters.com/business/energy/eon-flags-market-recovery-after-energy-crisis-2023-08-09/>

Industry and Competitive Overview

The inverter and generator market are a significant component of global energy infrastructure, serving both residential and industrial sectors. Both these product segments together contributed approximately 90% and 96% of the company's total revenue in 2021 and 2022, respectively. Inverters are devices that convert direct (DC) into alternating current (AC), and they are commonly used in renewable energy systems like solar power installations. Generators, on the other hand, are used to convert mechanical energy into electrical energy, providing backup power during outages or as the primary source of electricity in off-grid or remote locations. These two types of equipment are indispensable in ensuring a reliable power supply, especially in situations where energy sources are either unreliable or unavailable.

Inverter Market

The global inverter market size was estimated at \$16.97 billion in 2022 and is estimated to grow at a CAGR of 15.8% by 2032, reaching a valuation of \$73.27 billion.² The market comprises a range of products, from simple inverters used in small-scale residential settings to complex industrial-grade inverters that serve large manufacturing facilities. With the transition towards sustainable energy and increasing technological advancements, the inverter market has seen significant growth over the past few years. This robust growth trajectory, particularly in the fastest growing and emerging residential and automotive market, is likely to continue over the next decade, owing to

- The increasing adoption of renewable energy sources such as solar energy coupled with a rise in the number of solar rooftop installations
- Significant reduction in the levelized cost of electricity (LCOE) of solar and wind energy, making renewable energy increasingly viable.

The inverter market was valued at \$16.97 billion in 2022 and is projected to expand at a 15.8% CAGR through 2032, reaching \$73.27 billion

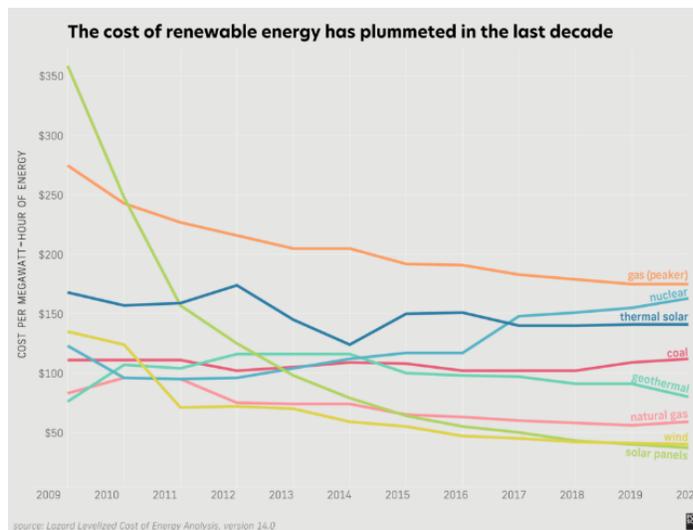


Exhibit 10: Reduction in Cost of Renewable Energy. Source: [Popular Science](https://www.popularscience.com)

² <https://www.precedenceresearch.com/inverter-market>

- Favourable government policies and initiatives related to solar and wind energy generation.
- The electrification of the transportation sector is opening up new avenues for growth, as efficient inverters are critical components in electric vehicles (EVs).

Asia Pacific remains the largest and fastest-growing inverter market across the globe, followed by North America and Europe. Accounting for more than 40% of the global market share, the geography is characterized by significant developments in renewable energy, rising electricity demands in emerging countries, and net zero footprint targets.³ This has contributed to significant increasing investments in photovoltaic (PV) plants and gave rise to Chinese companies such as Huawei, Sungrow, and Darfon, which are not only dominating the Asia-Pacific region but have a strong hold over the global market as well.

Generator Market

The global generator market, valued at an estimated \$32.2 billion in 2022, is expected to grow at a CAGR of 5.5%, reaching a valuation of \$54.8 billion by 2032.⁴ The steady growth of generators across a diverse range of products, from small portable generators for home and camping to use of large industrial generators that can power manufacturing facilities, are majorly found in regions with unreliable power grids, power cuts, load shedding, and regions that are prone to natural disasters. China, followed by the United States and OECD Europe, have historically remained the major electricity consumers across the globe. China will hold its leading position, with the share of global electricity consumption set to increase from 25% in 2015 to 33% by 2025.⁵ The Russia-Ukraine conflict, supply chain challenges due to the COVID-19 pandemic, extreme weather events, and natural disasters have disrupted the electricity supply even in the major developed countries across the globe. Power generators have played a major role during this period, ensuring a reliable and continuous source of energy, and are estimated to have steady growth over the next decade, majorly driven by increasing demand and need for a generator-enabled continuous source of power for end users that include residential, IT/telecom, chemical, construction, and oil & gas sectors. Other broad factors, including population growth, expansion of manufacturing activities, increasing industrialization and urbanization, and infrastructure development, particularly across emerging economies, will likely support power demand.

The global generator market is projected to grow from \$32.2 billion in 2022 to \$54.8 billion by 2032, at a CAGR of 5.5%. This growth is driven by the increasing demand for generators in regions with unreliable power grids, power cuts, and natural disasters

Based on fuel type, diesel generator, known for their efficiency and durability, remains a popular option, particularly in residential application, and holds 77.7% of the overall generator sales market.⁴ Even with increasing usage of clean energy, this segment is estimated to likely account for a similar market share valued at approximately \$42.3 billion by 2032.⁴ Based on geography, China and the United States are the two major economies that hold the leading market share of global generator sales, while China and India are two of the largest and fastest-growing generator markets. Major players in the generator power solutions segment include Weichai Group, Caterpillar Inc., Briggs & Stratton Corporation, Generac Power System, Doosan Portable Power, and AKSA Power Generation Company.

³ Precedence Research

⁴ <https://www.factmr.com/report/423/generator-market>

⁵ <https://www.iea.org/reports/electricity-market-report-2023/executive-summary>

Management Overview

Erayak Power Solution Group Inc. is guided by a management team with diverse experiences and backgrounds. The leadership's combined expertise in areas such as technology, finance, and business development contribute to the company's operations and strategic direction. This section offers an overview of the key individuals who make up the management team, highlighting their roles, qualifications, and contributions to Erayak Power Solution Group.

Lingyi Kong, Chief Executive Officer, Chairman of the Board, and Director

Lingyi Kong has been serving as the Chief Executive Officer, Chairman of the Board, and Director of Erayak Power Solution Group Inc. since July 2018. His tenure with Zhejiang Real Electronics Company saw him leading international business initiatives, including participation in key trade shows and successful negotiations for OEM contracts with prominent European and North American firms. His leadership at Erayak has been marked by strategic vision and innovation, contributing to the company's growth and success. Mr. Kong's educational background is complemented by a Bachelor's degree in Engineering Management from Ningbo University, earned in 2018.

Lanling Gu, Chief Financial Officer

Lanling Gu, the Chief Financial Officer of Erayak Power Solution Group Inc. since March 2021, has extensive experience in international accounting, including IFRS and USA GAAP reporting. Before her CFO appointment, she directed the Company's accounting department and served as an auditor at Zhejiang Oulong Electric Co., Ltd., where she played a key role in the company's IPO due diligence and led comprehensive audit work. Her deep understanding of cost control and accounting, honed through years in electronics manufacturing, is complemented by an associate's degree in accounting from Anhui Wuhu Vocational and Technical College and a certificate for Intermediate Accountant from the China Accounting Online School.

Wang-Ngai Mak, Director Nominee

Wang-Ngai Mak, Director Nominee, has been the Executive Vice President of Barakah Capital Holdings (M) Sdn. Bhd. since 2011, responsible for project evaluation and business development. His extensive experience spans roles such as Vice President of e-banking at CITIC Ka Wah Bank, where he led Internet banking initiatives, and Chief Information Officer and later CEO at ITG Systems Sdn. Bhd. in Malaysia. From 2017 to 2020, he served as Executive Vice President for Daya Bay Zhongnan Industrial Development Corporation, handling long-term investment projects in environmental preservation and poverty alleviation. Mr. Mak graduated with honors from The Chinese University of Hong Kong with a Bachelor's degree in Philosophy in 1995.

Jizhou Hou, Independent Director Nominee and Chair of Nominating Committee

Jizhou Hou brings two decades of experience in IoT and artificial intelligence. Currently, he serves as the Chief Technology Officer of Feilu Cloud Computing Wenzhou Co., Ltd. His past roles

include project leadership at Shanghai STMicroelectronics and serving as the Chief Architect of AI applications in electric vehicles at BYD Automation. Mr. Hou holds a Master's degree in Artificial Intelligence from the University of Science and Technology of China.

Jing Chen, Independent Director Nominee and Chair of Audit Committee

Jing Chen currently serves as the Vice President of Future FinTech Group Inc. Her extensive financial leadership experience includes roles as CFO at several companies, including AnZhiXinCheng (Beijing) Technology Co., Ltd., Beijing Logis Technology Development Co., Ltd., Beijing AnWuYou Food Co., Ltd., and Beijing DKI Investment Management Co., Ltd. She has also served as an Independent Director at Hello iPayNow (Beijing) Company Ltd. Ms. Chen holds a Doctor of Business Administration degree from Victoria University, Switzerland, an MBA from City University of Seattle, and several professional memberships and certifications, including Fellow Membership of CPA Australia, Fellow Membership of the Association of International Accountants U.K., and Certified Internal Control Professional from the Internal Control Institute.

Peiling Cheng, Independent Director Nominee and Chair of Compensation Committee

Peiling Cheng currently hold dual roles as an assistant controller at EduServe, Inc. and an accounting supervisor at Crown Castle. Her responsibilities span reviewing financial statements, budgeting, forecasting, supervising accountants, and providing analytical insights. Prior to these roles, she served as a senior accountant at Insulet Corporation and Avid Technology, Inc., where she monitored revenue activities, implemented accounting policies, maintained SOX controls, and prepared for audits. Ms. Cheng is a certified public accountant and holds a Master of Science in Accounting from the University of Texas and a Bachelor's degree in Foreign Languages and Literature from National Chung Cheng University in Taiwan.

Financial Performance Discussion

Strong Topline Growth - Erayak has reported strong top-line growth in the past two years, driven by a widening presence across various geographies, increasing adoption of its diversified portfolio of power solution products, and an energy crisis that significantly increased the demand for its generators. The company reported a revenue of \$14.12 million, \$18.63 million, and \$26.91 million for the years 2020, 2021, and 2022, respectively, indicating an impressive two-year revenue CAGR of 38.05%. Erayak is leveraging its research and development capabilities to introduce innovative power solution products, capitalizing on multiple demand trends and tapping additional growth markets. We anticipate these to be the key catalysts for fuelling sustained long-term growth. Inverters and generators are the company’s two core product segments making up for more than 90% of revenue in the past three years. In terms of geographical concentration, China remains the company’s primary market accounting for 57.11% and 67.02% of its total revenue for 2021 and 2022, respectively. Other major geographies include Poland, Germany, Canada, and the U.K.

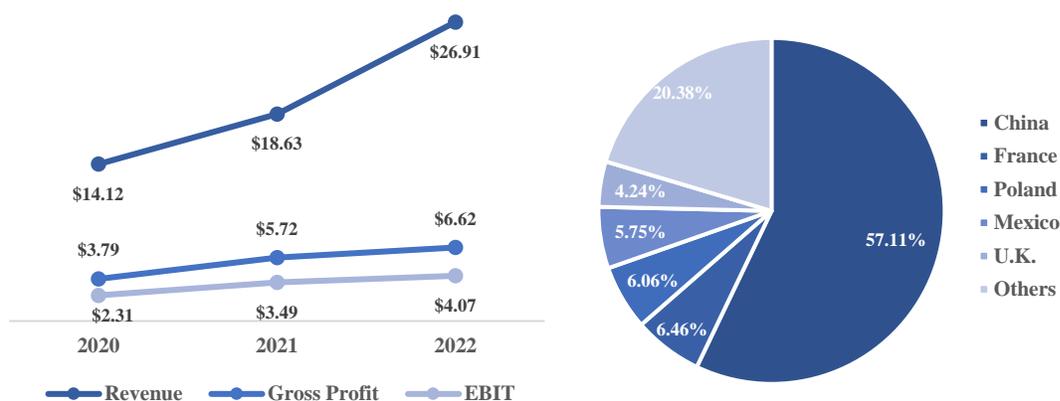


Exhibit 11: Revenue and Profitability Trend (Left), Revenue by Geography - 2021 (Right) Source: Diamond Equity Research

Fluctuation in Gross Margins While Maintaining Steady Operating Costs Relative to Revenue - With evolving revenue composition and shift in revenue contribution by different product segments, the company’s gross margin has remained volatile in the past three years. For 2020, 2021, and 2022, gross margins were 26.90%, 30.70%, and 24.60%, respectively. The decline in gross margin in 2022 is likely attributed to a significant increase in sales of generators and its overall share in total revenue. Generators, which are estimated to have lower margins when compared to inverters, accounted for 43.82% of total sales in 2022 compared to just 8.28% in 2021. Total operating expenses as a percentage of total revenue were 10.55%, 11.96%, and 9.47% for 2020, 2021, and 2022, respectively. Owing to heightened volatility in gross margins, the operating margins have also fluctuated and were 18.67% and 15.10% for 2021 and 2022, respectively. With new product launches in place, we model the gross margins to witness fluctuation over the short to term medium term, while operating expenses as a percentage of revenues are expected to be on similar lines as exhibited in the recent historical results.

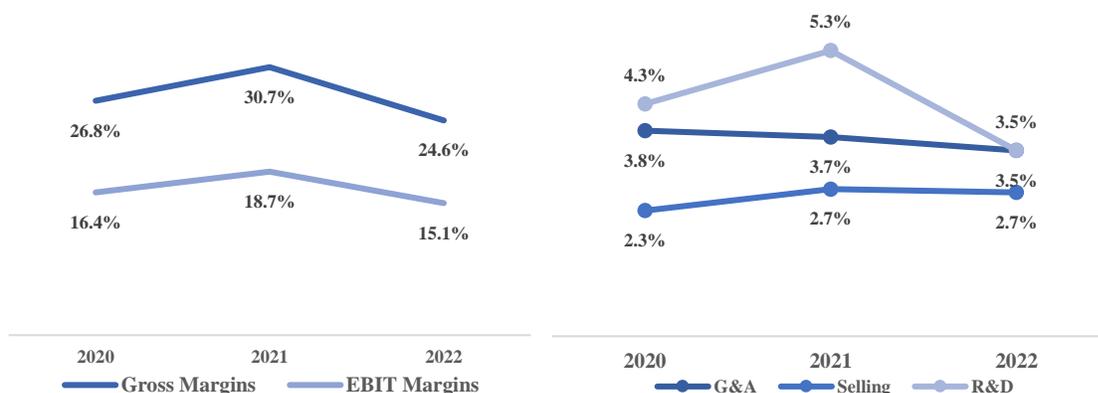


Exhibit 12: Margin Profile (left), Operating Expenses as a Percentage of Revenue (right). Source: Diamond Equity Research

Appropriate Capital Mix Enabling Robust Return Ratios - Erayak has financed its business with a mix of both debt and equity capital. The company’s total debt as a percentage of total capital is 36.6%, while the interest coverage ratio and debt coverage ratio stand at 8.1x and 2.3x, respectively. The company’s strong solvency profile and manageable debt capital indicate management’s prudence in striving to create an optimal capital structure. The use of financial leverage has contributed to robust return metrics, with return on equity (ROE) at approximately 26.50%.

Year-end 31 Dec. (in \$mm)	2021A	2022A	2023E	2024E	2025E
INCOME STATEMENT					
Revenue	\$18.63	\$26.91	\$29.33	\$32.78	\$35.93
Gross Profit	\$5.72	\$6.62	\$7.33	\$8.19	\$8.98
EBITDA	\$3.70	\$4.34	\$4.63	\$5.27	\$5.83
Depreciation & Amortization	(\$0.22)	(\$0.27)	(\$0.39)	(\$0.53)	(\$0.64)
EBIT	\$3.49	\$4.07	\$4.24	\$4.74	\$5.19
Interest Income/Expense	(\$0.42)	(\$0.47)	(\$0.48)	(\$0.46)	(\$0.46)
Profit Before Tax (PBT)	\$3.70	\$3.91	\$4.09	\$4.63	\$5.11
Profit After Tax (PAT)	\$3.39	\$3.48	\$3.06	\$3.47	\$3.83
Basic Shares Outstanding (M)	1.41	9.15	12.45	12.57	12.70
EPS - basic	\$2.40	\$0.38	\$0.25	\$0.28	\$0.30
BALANCE SHEET					
Cash and cash equivalents	\$5.17	\$7.07	\$10.67	\$12.06	\$14.32
Other current assets	\$8.32	\$21.17	\$21.53	\$24.03	\$26.31
Total current assets	\$13.49	\$28.24	\$32.21	\$36.09	\$40.63
Non-current assets	\$9.98	\$9.37	\$10.21	\$10.73	\$10.88
Total Assets	\$23.47	\$37.61	\$42.41	\$46.82	\$51.51
Short-term borrowing	\$5.91	\$10.97	\$10.97	\$10.97	\$10.97
Other current liabilities	\$5.95	\$7.08	\$8.82	\$9.75	\$10.61
Total current liabilities	\$11.87	\$18.04	\$19.79	\$20.72	\$21.58
Long-term borrowing	\$4.71	\$0.22	\$0.22	\$0.22	\$0.22
Other non-current liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total liabilities	\$16.58	\$18.26	\$20.01	\$20.94	\$21.80
Total Equity	\$6.89	\$19.34	\$22.41	\$25.88	\$29.71
Total Liabilities & Equity	\$23.47	\$37.61	\$42.41	\$46.82	\$51.51

Exhibit 13: Income Statement Snapshot. Source: Diamond Equity Research

Valuation

Erayak Power Solutions is an emerging global power solutions provider led by a first-in-class management team who have delivered on both fronts, growth and profitability. The management has built strong research and development capabilities that have supported their ability to effectively execute their growth strategy while capitalizing on positive demand trends. Our optimistic stance on the company is backed by the burgeoning industry, a proven business model, and a considerable possibility of undervaluation. Erayak is a micro-cap company and thus has largely remained under the radar, escaping the notice of mainstream investors, a factor that we think has contributed to its current undervaluation. Mergers and Acquisitions between strategic competitors are a common theme within the power solution industry to expand their presence inorganically while leveraging market synergies.

We have valued the company using discounted cash flows (DCF) as our primary approach while supplementing our valuation assessment with the comparable company analysis. Our assumptions include a weighted average cost of capital (WACC) of 9.4% and a terminal growth rate of 1.5%. The blended analysis of these approaches yielded a valuation of \$58.14 million or \$4.67 per share, contingent on successful execution by the company.

		Approaches (in \$ mm)	Value (USD)	Weight	Wtd. Value (USD)
Calculated Equity Value (\$mm)		DCF	\$49.56	90%	\$44.60
Enterprise Value	\$53.71	GPCM	\$135.45	10%	\$13.54
- Debt and Preferred Stock	\$11.18	GTM	-	0%	\$0.00
+ Cash	\$7.03	Wtd. Avg. Equity Value (USD)			\$58.14
Net Debt	\$(4.15)	No of Diluted Shares Outstanding			12.45
Equity Value	\$49.56	Intrinsic Value Per Share			\$4.67

Company Name	Ticker	Price	Currency	Country	Mkt Cap.	EV/S*	EV/EBITDA*
Ginlong Technologies	300763	76.76	RMB	CN	28,719	4.80	18.50
GoodWe Technologies	688390	141.1	RMB	CN	24,394	4.00	22.70
Sineng Electric	300827	31.38	RMB	CN	11,169	2.60	49.30
Honbridge Holdings	8137	0.4	HKD	HK	4,381	14.30	n.a.
Shenzhen Increase Technology	300713	17.8	RMB	CN	2,822	8.10	n.a.
Shanghai Cooltech Power	300153	7.8	RMB	CN	2,496	2.60	38.10
Shenzhen Sine Electric	688395	25.1	RMB	CN	2,156	4.30	36.60
Huayi Electric	600290	1.4	RMB	CN	1,041	4.80	n.a.
Median						4.55x	36.60x
Mean						5.69x	33.04x

Exhibit 14: Valuation Snapshot (in \$mm). Source: Diamond Equity Research

(*EV/Sales and EV/EBITDA are based on LTM values)

Risks Profile

- **Regulatory Risks and Governmental Influence in China's Market:** Erayak Power Solution Group's considerable presence in China subject it to certain legal and operational risks. The Chinese government's ability to significantly influence businesses, coupled with potential changes in the country's economic, political, or social conditions, could adversely affect the company's performance. Further, the company is domiciled in the Cayman Islands; the perception of the Cayman Islands as a tax haven may lead to reputational risk, scrutiny from international regulators, and potential changes in tax treatment.
- **International Sales and Operations:** The company's international sales are subject to risks that could impact profitability and operations. These include currency exchange rate fluctuations, challenges in accounts receivable collection, extended payment cycles, and changes in foreign regulations, export duties, and taxation. Additionally, import tariffs, other trade barriers, and protectionist policies could negatively affect various metal and semiconductor prices. These factors could increase operational costs and potentially restrict business expansion.
- **Intense Market Competition:** The company operates in a highly competitive power solution market, facing significant competition from domestic and international manufacturers. These competitors may possess advantages like greater brand recognition, larger customer bases, and more robust marketing resources. The inability to compete effectively could lead to loss of market share and customers, potentially impacting the company's financial and operational performance.
- **Substantial Customer Concentration:** The company has significant customer concentration, with a few customers accounting for a large portion of revenues. This presents risks as changes in demand, market conditions, or customer sales could impact revenues.
- **Supply Chain Disruption:** The company is dependent on a complex supply chain for raw materials. Any disruptions due to factors such as local protectionism, transportation issues, or natural disasters could significantly impact the company's manufacturing and distribution capabilities, potentially affecting its ability to produce and deliver products and ultimately impacting profitability.
- **Warranty Claims and Product Recalls:** The company is exposed to risks from warranty claims and product recalls. These could arise if products fail or cause harm, potentially leading to significant financial impacts and damage to the company's reputation.

This list of risk factors is not comprehensive. For a full list, please refer to Erayak Power Solution Group Inc.'s latest prospectus and/or annual filings.

Disclosures

Diamond Equity Research, LLC has created and distributed this report. This report is based on information we consider reliable, including the subject of the report. This report does not explicitly or implicitly affirm that the information contained within this document is accurate and/or comprehensive, and as such should not be relied on in such a capacity. All information contained within this report is subject to change without any formal or other notice provided. Diamond Equity Research, LLC is not a FINRA registered broker/dealer or investment adviser and does not provide investment banking services and follows customary internal trading procedures pending the release of the report found on [disclosure page](#).

This document is not produced in conjunction with a security offering and is not an offering to purchase securities. This report does not consider individual circumstances and does not take into consideration individual investor preferences. Recipients of this report should consult professionals around their personal situation, including taxation. Statements within this report may constitute forward-looking statements, these statements involve many risk factors and general uncertainties around the business, industry, and macroeconomic environment. Investors need to be aware of the high degree of risk in micro capitalization equities, including the complete loss of their investment.

Diamond Equity Research LLC is being compensated by Erayak Power Solution Group Inc. for producing research materials regarding Erayak Power Solution Group Inc. and its securities, which is meant to subsidize the high cost of creating the report and monitoring the security, however the views in the report reflect that of Diamond Equity Research. All payments are received upfront and are billed for research engagement. As of 11/20/23 the issuer had paid us \$34,946.44 (\$35,000 contract, fee reflects wire charge) for our research services, which commenced 08/03/2023 and is billed annually. Diamond Equity Research LLC may be compensated for non-research related services, including presenting at Diamond Equity Research investment conferences, press releases and other additional services. The non-research related service cost is dependent on the company, but usually do not exceed \$5,000. The issuer has not paid us for non-research related services as of 11/20/2023. Issuers are not required to engage us for these additional services. Additional fees may have accrued since then.

Diamond Equity Research, LLC is not a registered broker dealer and does not conduct investment banking or receive commission sharing revenue arrangements related to the subject company of the report. The price per share and trading volume of subject company and companies referenced in this report may fluctuate and Diamond Equity Research, LLC is not liable for these inherent market fluctuations. The past performance of this investment is not indicative of the future performance, no returns are guaranteed, and a loss of capital may occur. Certain transactions, such as those involving futures, options, and other derivatives, can result in substantial risk and are not suitable for all investors.

Photocopying, duplicating or otherwise altering or distributing Diamond Equity Research, LLC reports is prohibited without explicit written permission. This report is disseminated primarily electronically and is made available to all recipients. Additional information is available upon request. For further questions, please contact research@diamondequityresearch.com