



# 2021 Annual Shareholder Letter

A Message from Joe Mastrangelo, Chief Executive Officer

March 31, 2022

Fellow Shareholders:

Eos achieved many milestones in 2021 as we navigated an environment with unprecedented uncertainty and global supply chain complexity. We became an inaugural member of the [Long Duration Energy Storage \(LDES\) Council](#) that was launched during the United Nations Climate Change Conference in Glasgow (COP26). We [hosted U.S. Department of Energy \(“DOE”\) Secretary, the Honorable Jennifer Granholm](#), at our Edison, NJ headquarters, the Secretary’s location of choice to launch the DOE’s “Energy Earthshot Initiative.” By year-end we ran over 300,000 discharge cycles on our battery energy storage system (BESS) technology, delivered \$4.6 million in revenue, and booked \$137 million in new orders, which grew our order backlog to nearly \$150 million. All in all, we believe we delivered solid results in our first full year as a publicly traded company.

We now stand at a unique moment in time. The energy industry is radically transforming at a pace I’ve never seen during my 30-year career. We like to use big words to describe this change. You hear terms like:

**“Electrification”**: replacing technologies that use fossil fuels (coal, oil, and natural gas) with technologies that use electricity as a source of energy.

**“Decarbonization”**: decreasing CO<sub>2</sub> output (greenhouse gases) per unit of electricity generated by deploying lower carbon (renewable) power sources.

**“Intermittency”**: renewable (solar and wind) power source fluctuations, both predictable (the sun shines only during the day) and unpredictable (not knowing when it will be cloudy or when there won’t be any wind).

**“Grid Congestion”**: a power line bottleneck caused by power generation exceeding grid capacity and demand usually caused by a sudden increase in renewable power generation.

Simply stated, the world needs more power. We want to generate that power with sustainable sources, but this objective creates imbalances in our existing energy grid. Managing and mitigating those imbalances will require multiple energy storage technologies to provide safe and reliable power. Until now, most energy storage systems have been short duration, meaning they’ve reliably provided power for less than four hours. We believe the future will require longer duration (6-12 hour) battery energy storage systems that provide the flexibility to match intermittency and congestion.

## **Why Eos Wins**

**We’re Focused**: We provide only stationary storage solutions. Since our founding 13 years ago, we’ve been perfecting our technology. Our essential chemistry hasn’t changed in 10 years, and we’ve built an extensive patent portfolio to protect our intellectual property. Our singular purpose is to provide flexible charge and discharge cycles that allow our customers to smooth intermittency and relieve grid congestion. We do one thing, and we are determined to be the best at it.

**We’re Different**: While energy storage is a nascent application, power generation is not. When people flip a switch, they expect the lights to come on. We’ve built a safe and durable product that can operate in the harshest conditions. Whether it’s in a freezing polar vortex or a sweltering desert, an Eos system doesn’t require additional heating or air conditioning. Underwriters Laboratories (UL) recognizes our non-toxic



battery energy storage system as non-flammable with no need for a fire suppression system. Finally, at the end of a long useful life (est. 20 years), all materials are fully recyclable using common recycling processes. Our systems are simple and easy to use with low maintenance requirements. We help meet tomorrow's energy challenges today.

**We're Scalable:** The storage opportunity is large (projected TAM = 115 GWh), and the numbers are big (every 1% share = \$250M).<sup>1</sup> All signs point to energy storage growing along with utility solar and wind as they come to scale. Over the last decade, solar and wind have become the fastest growing new power generation technologies, and in the process, they have also reduced their costs by 89% and 70%, respectively. The Zynth™ battery is composed of five earth-abundant, readily available raw materials with mature supply chains that allow us to drive cost down as we scale. Many failed battery companies built manufacturing capacity before winning orders and then couldn't support their fixed cost position as they tried to find launch customers. Our business model is to build manufacturing capacity after we have a backlog of firm orders. We can deploy new capacity in as little as 12 months with the ability to accelerate or slow down our timing as the market evolves. The Eos manufacturing process is also more capital efficient. We estimate a 1 GWh factory requires approximately \$50 million capital investment, which is 60% lower than a comparable Li-ion facility. We've built a model that we believe captures growth and will deliver long-term shareholder value.

**We're Operating vs. Inventing:** Since our inception, we have run over 2.3 million operating cycles (charge & discharge) in our Edison Innovation Lab and in the field with customers. Every day, and with every cycle, we learn how to improve performance, lower cost, improve quality, and accelerate manufacturing. In the fourth quarter we grew sales by 332% while cost of goods sold (COGS) increased only 64%, or greater than 5 times operating leverage. Just 30 months ago, we opened our factory in Turtle Creek, Pennsylvania, and today we have a 135-person manufacturing team at this location who shows up with one goal in mind: shipping quality systems to our customers. We have evolved beyond trying to make a product that works to now working on making a proven product better. Our next generation product, the Z3, is currently on test in Edison, New Jersey and has successfully run nearly 100 cycles. The Z3 utilizes the same chemistry and is designed with lower cost materials that we project will reduce weight, improve performance, and decrease manufacturing cycle time. All of these steps better position Eos to continue rapid growth and deliver positive gross margins.

**We're a Great Team:** At Eos, chemistry is paramount. It's what makes our system work. However, what is even more essential is how we have assembled our team. I am astounded by our progress this year, and I am proud to be on this talented team. What we are doing at Eos is not and should not be easy. Around every corner there is a new challenge, a new target, and the ultimate goal of becoming a profitable growth company. Our compensation model is weighted towards stock performance and every employee at Eos is a shareholder. We don't just try to think like owners; all of us *are* owners of Eos. We're building something important. Something we're proud of. Something that is going to make a difference in the world.

### ***We Have Work to Do***

Being in a growth industry with so many possibilities is exciting. At the same time, we need to be careful that those possibilities don't become a trap. Success requires that we focus on one thing, and that is delivering on our customer commitments. Our 2022 revenue target is \$50 million—greater than 10x our 2021 revenue—with shipments coming from customer orders in backlog. We expect our operating leverage to continue to improve as we scale. We plan to invest \$25 million in our Turtle Creek facility in 2022 to

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<sup>1</sup> Multiple sources, including, *Net-zero power: Long duration energy storage for a renewable grid*, report by LDES Council, McKinsey & Company. Also, *Battery Energy Storage System Market worth \$15.1 billion by 2027 – Exclusive Report by MarketsandMarkets™*, Bloomberg.



deliver this growth and expand our capacity to 800 MWh. Our opportunity pipeline<sup>2</sup> stands at \$4 billion and growing to support our target of \$400 million in new firm orders. Our targets are ambitious yet achievable.

Like virtually all companies, we continue to see supply chain complexity. Securing deliveries has required more cash advances to suppliers and lead times required additional planning, however, we've steadily diversified our supply base and continue to build capability near our factory with the goal that more than 90% of our raw materials will be domestically sourced by year-end.

Our almost \$150 million order backlog<sup>3</sup> includes \$34 million in long-term (over 7-15 years) recurring service revenue that starts after our standard warranty expires. Today, our anticipated service revenue is solely focused on supporting the installed hardware in the field. We also have a proprietary battery management system that allows us to optimize performance. We know vastly more about our systems, and as customer requirements evolve, we believe we'll have the software to deliver that performance.

We are currently prioritizing growth because scale allows us to achieve our full potential faster. This strategy requires additional capital, and our intent is to do this with a capital structure that minimizes dilution to current shareholders while providing the flexibility to move quickly. We are focused on increasing manufacturing capacity (in progress), delivering to customers (from our orders backlog), and introducing an improved product (on test today). Our promise is to be good stewards of shareholder resources by deploying capital effectively and efficiently while maintaining the appropriate cost structure.

We are moving from a differentiated technology to differentiated performance. We believe there are significant opportunities to bring new value to our customers. This requires sustained investment in infrastructure and software to make Eos the easiest system to operate. We also believe that there are substantial global opportunities for Eos's operating model. We will be bold yet thoughtful in that approach.

We are very optimistic about our future. We believe energy storage will be a very large opportunity, and we are determined to be one of several companies playing an indispensable role in providing long-duration storage as the world continues its transition to cleaner energy. We're proud of what we've done, and we're even more excited about what we'll do in the future.

Special thanks to our customers for the trust they've placed in our capabilities, to our team for the passion and hard work they put in every day, and above all, to our shareholders for the support and belief they share in the vision of what we will become.<sup>4</sup>

A handwritten signature in black ink, appearing to read "Joe Mastrangelo", with a long horizontal line extending to the right.

**Joe Mastrangelo**  
Chief Executive Officer

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<sup>2</sup> Our pipeline represents projects that we have submitted technical proposals or non-binding quotes plus customers with letter of intents or firm commitments. Pipeline does not include lead generation projects.

<sup>3</sup> "Backlog" is described in detail in the key metrics section, in our press release dated February 25, 2022, found here: <https://investors.eose.com/news-releases/news-release-details/eos-energy-enterprises-reports-fourth-quarter-and-full-year-2021>.

<sup>4</sup> This letter is qualified as set forth here: <https://investors.eose.com/forward-looking-statements-1>.