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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-K**

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2024

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 001-39525



**ESS Tech, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**26440 SW Parkway Ave., Bldg. 83**

**Wilsonville, Oregon**

(Address of Principal Executive Offices)

**98-1550150**

(I.R.S. Employer  
Identification No.)

**97070**

(Zip Code)

**(855) 423-9920**

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

<b>Title of each class</b>	<b>Trading Symbol(s)</b>	<b>Name of each exchange on which registered</b>
Common Stock, \$0.0001 par value per share	GWH	New York Stock Exchange
Warrants, each fifteen warrants exercisable for one share of common stock at an exercise price of \$172.50	GWH.W	New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes

☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of the last business day of the registrant’s most recently completed second fiscal quarter, June 30, 2024, was approximately \$84.7 million based on the closing sales price of our common stock on the New York Stock Exchange on June 30, 2024 of \$12.27. Shares of the registrant’s common stock held by each executive officer, director, and holder of 10% or more of the outstanding common stock have been excluded because such persons may be deemed affiliates. This calculation does not reflect a determination that certain persons are affiliates of the registrant for any other purpose.

As of March 25, 2025, 12,103,750 shares of common stock, par value \$0.0001 per share, were issued and outstanding.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s definitive proxy statement relating to the 2025 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K to the extent stated herein. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant’s fiscal year ended December 31, 2024.

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## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including, without limitation, statements in “*Part II—Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations*,” includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements can be identified by the use of forward-looking terminology, including the words “believes,” “estimates,” “anticipates,” “expects,” “intends,” “plans,” “possible,” “may,” “might,” “will,” “potential,” “projects,” “predicts,” “continue,” “could,” “would” or “should,” or, in each case, their negative or other variations or comparable terminology. These words and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. These forward-looking statements, which are subject to risks, uncertainties and assumptions about us, may include projections of our future financial performance, our anticipated growth strategies and anticipated trends in our business.

These statements are based on management’s current expectations, but actual results may differ materially due to various factors, risks, and uncertainties, including, but not limited to:

- our financial and business performance, including financial projections and business metrics;
- changes in our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects and plans;
- the implementation, market acceptance and success of our technology and business model;
- our ability to scale in a cost-effective manner;
- developments and projections relating to our competitors and industry;
- the impact of the Russia-Ukraine conflict, geopolitical tensions involving China, tensions in the Middle East, and similar macroeconomic events, including global supply chain challenges, foreign currency fluctuations, instability in the financial markets, fluctuating inflation and interest rates and monetary policy changes, upon our and our customers’, contractors’, suppliers’ and partners’ respective businesses;
- our expectations regarding our ability to obtain and maintain intellectual property protection and manufacture and sell our products and services without infringing on the rights of others;
- our future capital requirements and sources and uses of cash;
- our ability to obtain funding for our operations and the impact of any cash conservation or fundraising measures;
- our business, expansion plans and opportunities;
- our relationships with third parties, including our customers, contractors, and suppliers;
- issues related to the shipment, installation, and operation of our products;
- issues related to contract execution, including customer site readiness and acceptance of our products;
- our ability to enter into commercial or strategic partnerships or transactions and recognize benefits therefrom;
- the outcome of any known and unknown litigation and regulatory proceedings;
- our ability to successfully deploy the proceeds from the Business Combination (as defined herein), other investments in our Company and any borrowing under our existing or future credit agreements;
- our ability to satisfy certain New York Stock Exchange (“NYSE”) listing requirements and maintain a trading market for our common stock;
- other risks and uncertainties discussed in “*Part I—Item 1A. Risk Factors*” and elsewhere in this Annual Report on Form 10-K.

The forward-looking statements contained in this Annual Report on Form 10-K are based on our current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements are made as of the date of this Annual Report on Form 10-K and involve a number of risks, uncertainties (some of which are beyond our control) and other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described in “*Part I—Item 1A. Risk Factors*” and elsewhere in this Annual Report on Form 10-K. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in



material respects from those projected in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. These risks and others described in “*Part I—Item 1A. Risk Factors*” may not be exhaustive.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and developments in the industry in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in this Annual Report on Form 10-K. In addition, even if our results or operations, financial condition and liquidity, and developments in the industry in which we operate are consistent with the forward-looking statements contained in this Annual Report on Form 10-K, those results or developments may not be indicative of results or developments in subsequent periods.

## PART I

### ITEM 1. BUSINESS

Unless the context otherwise requires, all references in this Annual Report on Form 10-K to “ESS,” “we,” “us,” “our,” or the “Company” refer to ESS Tech, Inc.

#### Business Combination

ESS Tech, Inc. (“Legacy ESS”) was founded in 2011 and became a publicly traded company through a business combination with a special purpose acquisition company named ACON S2 Acquisition Corp. (“STWO”) which changed its name to ESS Tech, Inc. upon closing (the “Business Combination”). As a result of the Business Combination, Legacy ESS survived and became a wholly owned subsidiary of ESS Tech, Inc. On March 31, 2024, Legacy ESS merged with ESS Tech, Inc. leaving ESS Tech, Inc. as the sole remaining legal entity. As of April 1, 2024, the Company does not have any subsidiaries.

#### Business Overview

ESS is a long-duration energy storage company specializing in iron flow battery technology. We design and produce long-duration batteries predominantly using earth-abundant materials that we believe can be cycled over 20,000 times without capacity fade. Because we designed our batteries to operate using an electrolyte of primarily salt, iron and water, our products are environmentally sustainable and substantially recyclable or reusable. Our batteries provide flexibility to grid operators and energy assurance for commercial and industrial customers. Our technology addresses energy delivery, duration and cycle life in a single battery platform that compares favorably to lithium-ion batteries, the most widely deployed alternative technology. We design and build this core technology, including battery stacks, electrolyte and electrolyte health management solutions into a core power train that is then sold in a variety of configurations to create distinct products that meet the various needs of the industry. These include our smaller-scale Energy Warehouse, larger containerized Energy Centers, gigawatt-scale fully configurable Energy Base and core power trains that can be assembled at the customer site into complete storage solutions. With each battery deployed, we further our mission to accelerate the transition to a zero-carbon energy future with increased grid reliability.

Our batteries are non-flammable and can operate in a wide range of temperatures from -15°C to 50°C with minimal auxiliary loads. This allows our energy storage products to be located in sites where lithium-ion batteries cannot be placed due to fire, chemical or explosion risks. In addition, our batteries are environmentally sustainable, predominantly utilizing readily sourced materials and recyclable or reusable components.

Our batteries and technology can be purchased with an extended ten-year warranty which is backed by investment-grade, warranty and project insurance policies from Munich Re, a leading provider of reinsurance, primary insurance and insurance-related risk solutions, which stands behind the performance of our energy storage products. To our knowledge, we are the first long-duration energy storage company to receive this type of insurance, which provides a warranty backstop for our proprietary flow battery technology, supporting our performance obligations regardless of project size or location and de-risking the technology for our customers. We have also collaborated with Munich Re to develop separate project coverage for our customers. This project coverage provides warranty continuity insurance in the event of our insolvency, providing long-term assurance of project performance to our customers and their investors and lenders. Bonding and surety capital is provided through OneBeacon Insurance Group (“OneBeacon”) as well as qualification from the U.S. Export-Import Bank, which provides additional product assurance. We believe each of these elements allows us to increase our total addressable market, as potential customers have reduced technology risk, financing risk and importing risk.

We believe that as we are able to increase our production, our per unit costs will decrease, allowing our battery technology to be priced more competitively. When comparing products on a lifetime levelized cost of storage (“LCOS”) basis, which is the total cost of the investment in an electricity storage technology divided by its cumulative delivered electricity, we expect our batteries to be less expensive than lithium-ion alternatives for storage durations greater than eight hours, which we believe is the economic maximum for lithium-ion technologies. Our cost advantage increases as the storage duration extends beyond eight hours because of the scalable nature of our technology.

Energy storage solutions of various sizes and durations must be installed throughout global electrical grids to enable decarbonization in line with global climate objectives. Our energy storage products are intended to supply long-duration power across this expanding spectrum of use cases. As described below in the subsection entitled “*Our Technology and Products*,” we believe our energy storage products will be capable of addressing customer needs across multiple use cases and markets. We are an early mover in long-duration energy storage and we believe our products will enable more rapid implementation of renewable energy while also improving grid stability. The safety, flexibility and durability of our energy storage products enable customers to use them in nearly any location globally. Examples of use cases range from localized

energy storage at commercial and industrial sites to grid-scale use cases, such as peaker plant replacement and grid stabilization.

## **Our Technology and Products**

Our long-duration iron flow batteries are the product of nearly 50 years of scientific advancement. In the 1970s, researchers first developed the concept of iron flow batteries. Despite realizing the batteries' promising ability to store energy, these researchers found that the reaction between the positive and negative sides created hydroxide formations that clogged the electrodes and reduced the activity of the electrolytes. Hydroxide formation caused rapid degradation in early iron flow batteries after only a few cycles. Unable to prevent the hydroxide from forming, these scientists were forced to abandon their work.

Our founders, Craig Evans and Dr. Julia Song, began advancing this technology in 2011 and formed Legacy ESS. Building upon this promising concept, our team has significantly enhanced the technology, improved round-trip efficiency and developed an innovative and patented solution to the hydroxide build-up problem. Our proprietary solution to eliminate the hydroxide formation is known as the Proton Pump, and it works by utilizing hydrogen generated by side reactions on the negative electrode. The Proton Pump converts the hydrogen back into protons in the positive electrolyte. This process eliminates the hydroxide and stabilizes the pH level of the system. The Proton Pump allows the electrolyte to be used for the 20,000 cycle-design without capacity fade.

Our iron flow batteries store energy by converting electrical energy into chemical energy. Each battery module is made up of one or more cells and each of these cells is made up of a negative electrode and a positive electrode, and these two electrodes are separated by a porous separator. On the positive side (positive electrode) of the battery during charge, ferrous iron ( $\text{Fe}+2$ ) is oxidized into ferric iron ( $\text{Fe}+3$ ) and on the negative side (negative electrode) of the battery, ferrous iron is reduced to iron metal. The porous separator is used to minimize the positive and the negative electrolyte from mixing, which helps improve the coulombic efficiency of the battery. The positive and negative electrolytes are stored separately in tanks outside of the battery and this electrolyte is constantly pumped in and out of the battery while in operation. To convert the chemical energy back to electrical energy, the reaction is reversed; on the positive side of the battery, ferric iron is reduced to ferrous iron and on the negative side, metallic iron is oxidized into ferrous iron. During these charge and discharge cycles the pH of the positive and negative electrolyte can change dramatically. The Proton Pump ensures that the electrolyte pH remains stable and clear of any hydroxides.

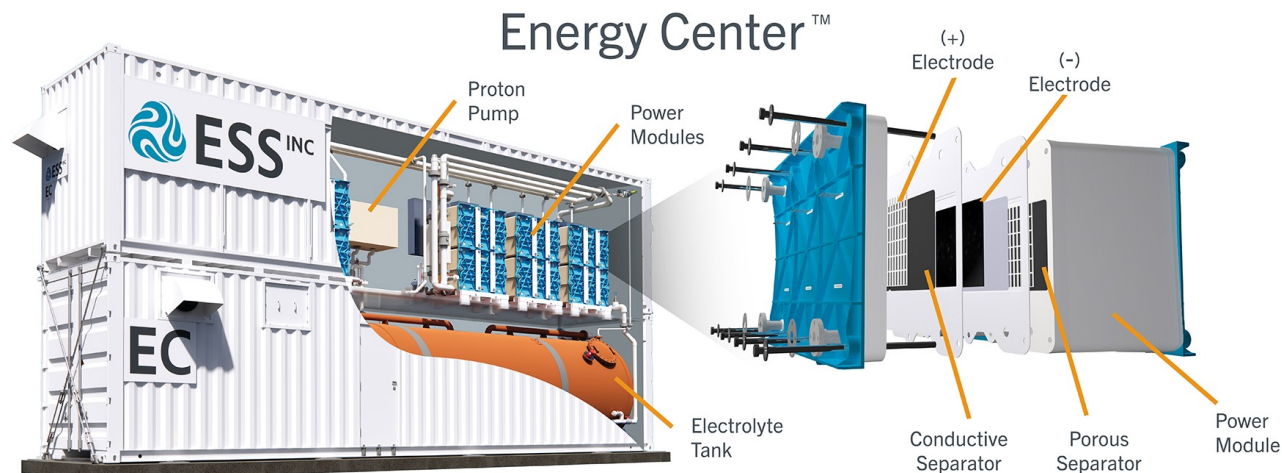
Our iron flow batteries store energy by charging positive and negative electrolyte tanks that are separated by a membrane. In order to release energy, we generate a reaction between the tanks via the membrane. The power generated is a factor of the membrane size, while the duration of storage we can offer is a factor of the tank sizes and the addition of electrolytes to the tank, which can be accomplished at a relatively low cost. The duration of stored energy can be independently varied from the power. This allows for low marginal costs of energy, making our technology attractive for long-duration energy storage.

Using our iron flow battery technology, we developed a variety of products to provide reliable, safe, long-duration energy storage solutions. Our first energy storage product, the Energy Warehouse, is designed as a 'behind-the-meter' solution and is often used for initial testing and technology verification. Our second, larger scale energy storage product, the Energy Center, is designed to be a complete battery solution delivered in a modular, stackable form factor that can be deployed either 'behind-the-meter', at commercial/industrial sites or in micro-grid deployments, or 'front-of-the-meter' for large-scale grid applications. The Energy Center is designed to allow customers to connect multiple units in a variety of configurations, supporting energy storage projects ranging from sub-megawatt to tens-of-megawatt scale. The Energy Center is configured with higher power and longer duration than the Energy Warehouse, and the modular design allows customers to meet the specific requirements of their application as needed. Our third, gigawatt-scale storage product, the Energy Base, is designed with a fully configurable layout that integrates with any site location and that allows the power (the rate of electricity flow) to be decoupled from the capacity (the total amount of energy held). This, combined with an expectation of unlimited cycling and rapid response time, means that the performance of each Energy Base can be tailored to meet individual customer needs. As a result, users have the flexibility to use the battery for various use cases simultaneously on a project.

The same core technology can enable energy storage solutions designed to meet specific customer needs, particularly when much larger (<5-100MW) requirements exist. In this arrangement, we offer core components configured as power trains, which can then be assembled on-site with various 'balance of system' components, including tanks, pumps, and plumbing, to create fully integrated storage solutions. These balance of system components are commercially available products used across a variety of industries and applications. ESS has developed and will continue to expand its documentation, reference design and recommendations to allow customers and partners to build and operate integrated storage solutions based on our core technology.

For all of our energy storage products, the intellectual property and points of differentiation are contained within the core technology components, the Proton Pump, power module, Battery Management System and electrolyte. These components are protected by trade secrets, patents (both granted and in process) and years of research. The balance of system components required to build complete solutions are intentionally designed to be easily produced using broadly available pumps, tanks and other equipment and easily fabricated enclosures, allowing energy storage products to be assembled and deployed almost anywhere at an efficient cost.

### **ESS' Critical Technology**



### **Customers**

Our current and potential customers include utilities, IPPs and C&I end users. We intend to serve customers in both 'behind-the-meter' and 'front-of-the-meter' markets. In behind-the-meter applications, customers will use our energy storage products to reduce energy costs, integrate with renewable energy solutions to achieve corporate sustainability goals, and to enhance their energy resiliency. Behind-the-meter customers may include data centers, microgrids, critical infrastructure assets and small-scale C&I customers.

Front-of-the-meter customers, in contrast, are primarily utilities experiencing high rates of renewable energy penetration and requiring energy storage to help balance the grid, and IPPs who can leverage energy storage to improve the economics of renewable energy projects. These customers use our energy storage products to store energy on a utility scale that they can then utilize or sell to their customers when needed and ensure overall grid reliability at a time of increasing demand for energy and grid reliability. Over time, we expect our customer base to expand to include additional types of energy suppliers and an even broader variety of use cases.

We believe our solutions are well-suited to address these diverse applications and use cases due to their flexibility, longevity and safety, among other factors.

### **Suppliers**

Our batteries are made predominantly of earth-abundant, environmentally sustainable materials. These materials are considerably less expensive than rare earth metals that make up other batteries and as a result make up a low percentage of the total costs for our batteries. Because these materials are widely available, there are multiple suppliers for each input. In addition, we use limited high cost materials such as platinum in our manufacturing. While supply chain disruptions have in the past impacted the ability of some of our suppliers to deliver certain components of our batteries to us in a timely manner as described in the section entitled "*Part I—Item 1A. Risk Factors—Risks Related to Our Technology, Products and Manufacturing—We depend on third-party suppliers for the development and supply of key raw materials and components for our energy storage products. We also depend on vendors for the shipping of our energy storage products. Quality issues or delays in our supply or delivery chain and shipments could harm our ability to manufacture, supply and commercialize our energy storage products,*" the mechanical elements and control systems of our batteries are comprised of commercially available equipment that can be supplied by multiple manufacturers.

### **Partnerships**

- *Munich Re:* We offer our customers the opportunity to purchase our batteries and technology with a ten-year warranty which is backed by investment-grade warranty and project insurance policies from Munich Re, a leading

provider of reinsurance, primary insurance and insurance-related risk solutions, which stands behind the performance of our energy storage products. To our knowledge, we are the first long-duration energy storage company to receive this type of insurance, which provides a warranty backstop for our proprietary flow battery technology, supporting our performance obligations regardless of project size or location and de-risking the technology for our customers. We have also collaborated with Munich Re to develop separate project coverage for our customers. This project coverage provides warranty continuity insurance in the event of our insolvency, providing long-term assurance of project performance to our customers and their investors and lenders.

- *OneBeacon Insurance*: Through OneBeacon, we offer project surety capacity and corporate bonding options to our customers.
- *Export-Import Bank of the United States*: The Export-Import Bank of the United States (“EXIM”) is the official export credit agency of the United States. EXIM equips U.S. businesses with the financing tools necessary to compete for global sales when private sector lenders are unable or unwilling to provide financing. Our energy storage products are qualified by EXIM, which can provide financing for qualified overseas buyers.

## **Research & Development**

Since January 1, 2019, we have invested approximately \$176.4 million in improving our technology and bringing our energy storage products to market. Our research and development efforts are conducted in Oregon and supported by our approximately 41 research and development employees.

We aim to be a leader in the long-duration energy storage market, and in order to do so, it is essential to continue our ongoing research and development activities. We have a research and development roadmap for additional breakthroughs to extend our technology advantages further. Expanding our technological capabilities to alternate chemistries and technologies is also a long-term goal of our research and development team.

## **Intellectual Property**

Intellectual property is an integral differentiator for our business, and we rely upon a combination of patents, copyrights and trade secrets to protect our proprietary technology. We believe that we have enforceable intellectual property protection over all critical design elements as well as the key enabling technologies for iron flow batteries. We have developed a significant patent portfolio. We have over 333 patents that are granted, applied for or in the pipeline for application, and an undisclosed number of trade secrets. Without taking into account any possible patent term adjustments or extensions, the earliest our current, issued patents will begin to expire is 2028. We continually review our efforts to assess the existence and patentability of new proprietary technology. We intend to leverage our iron flow expertise to drive innovation and are pursuing additional technological advancements.

## **Competition**

The energy storage industry is highly competitive. The declining cost of renewable energy, the decrease in battery costs, improving battery technologies, and public financial support in the form of grants and tax incentives are shifting customer demands causing the industry to evolve and expand. The main competitive factors in the energy storage market include, but are not limited to, safety and reliability, duration, performance and uptime, operational flexibility, asset life length and cyclability, ease of integration, operability in extreme temperatures, environmental sustainability, historical track record, and field-proven technology.

With the rising demand for clean electric power solutions with lower greenhouse gas emissions, there has been a transition to renewable energy sources and increasing penetration of distributed energy infrastructure. The proliferation of intermittent generating resources has created new challenges to electric grid stability, and thus an opportunity for an increased role for long-duration energy storage solutions. In recent years there have been, and in the future there may continue to be, more unpredictable weather events including extreme temperatures, hurricanes and wildfires. Our technology can operate efficiently and effectively in these extreme weather conditions. Our key competitors include different energy storage technologies such as lithium-ion batteries, lithium metal batteries, vanadium or zinc bromine batteries, sodium sulfur batteries, compressed air, hydrogen, fuel cell and pumped-storage hydropower. Key competitors in the traditional lithium-ion space include Contemporary Amperex Technology Co. Limited, LG Chem, Ltd., Samsung Electronics Co., Ltd., Sungrow Power Supply Co., Ltd., and Tesla, Inc. Key competitors in the non-lithium-ion space include CellCube, CMBlu Energy AG, Energy Dome Energy Vault, Enerox GmbH, Eos Energy Enterprises, Inc., Form Energy, Highview Power PTY Ltd., Hydrostor, Lockheed Martin (GridStar Flow), Malta Inc., and VoltStorage GmbH. Many of our competitors have substantially greater financial, marketing, personnel and other resources than we do. Although we may be small compared to some of our competitors, we believe we are well-positioned to compete with them in the market supported by our innovative iron flow battery technology, strategic partnerships and premier leadership team with a proven track record of success.



New technologies may enter the market that may have additional or superior advantages to our offerings. We believe there is significant government support available for energy storage technologies, and a variety of newer and emerging companies have announced plans to develop energy storage products using a variety of technologies, including compressed air, thermal energy, and solid-state batteries among others. Although many of these companies are not in commercial production today, they may in the future offer solutions that become competitive with our offerings. We intend to continuously improve our product offerings and maintain robust research and development efforts in order to stay ahead of existing and emerging competitors.

### **Government Regulations and Compliance**

We operate in the heavily regulated energy sector. As such, there are a variety of federal, state and local regulations and agencies that impact our operations. As a participant in the renewable energy sector specifically, there are additional regulations, tax incentives and support mechanisms in place to promote growth. Renewable energy is a priority for many national, state and local governments.

On the federal level, tax credits are currently in place that incentivize the deployment of renewable energy and battery storage. Battery storage projects storing energy from renewable energy sources are eligible for investment tax credits that allow project developers to monetize and sell the tax credits they receive from the creation of their projects. Additionally, battery storage is eligible for accelerated depreciation via the federal government's Modified Accelerated Cost Recovery System. Both policies provide tax and financing advantages for battery storage projects, lower the capital requirements for renewable energy projects to be developed and open a new source of funding for these projects.

State incentives have also driven growth in the deployment of renewable energy and energy storage. States with high Renewable Portfolio Standards ("RPS"), for example, have seen greater deployment of renewables than states with similar renewable resources that lack such requirements. In many states, including Texas, Oklahoma and California, the RPS-driven deployment of intermittent renewables is straining the electric grid and thus driving demand for energy storage.

Incentives for renewable energy and grid upgrades in Australia may drive growth for battery and energy storage as well. The Australian Government's Powering Australia plan includes an investment of AU\$20 billion by 2030 for upgrades to the electricity grid to support more renewable power. At the state level, the government of Victoria has pledged to legislate Australia's largest renewable energy storage targets: 2.6 gigawatts of renewable energy storage capacity by 2030 and 6.3 gigawatts of storage by 2035. New South Wales has also recognized the critical need for energy storage, calling for the procurement of 2 gigawatts of long-duration energy storage in its Electricity Infrastructure Roadmap.

All of these governmental programs supporting demand for our products are complex and political in nature, and therefore are subject to repeal, amendment, and interpretation in ways less supportive of our growth.

In addition to benefiting from governmental laws and regulations supporting energy storage, we are subject to federal, state and local requirements related to the environment, health, safety and employment. Our manufacturing process is subject to environmental regulations, and our products are subject to regulations addressing safety and reliability. We are also subject to the requirements of the Occupational Safety and Health Act, local wage regulations and rigorous health and safety regulations in the State of Oregon.

### **Human Capital Management**

We pride ourselves on our clean, innovative technology and our employees are dedicated to our strategic mission to deliver reliable, resilient and safe renewable energy storage solutions to communities worldwide. Approximately a third of our employees are involved in product manufacturing in order to refine and grow our operations. As of December 31, 2024, we employed 240 full-time employees, based primarily at our headquarters in Wilsonville, Oregon.

In order to achieve our mission to create a reliable, resilient, and safe renewable energy future, we are committed to investing in our employees and building a respectful and diverse work environment. We provide equal employment opportunities to all persons regardless of race, age, color, gender, sexual orientation, national origin, physical or mental disability, religion, or any other characteristic protected by federal, state, or local law. Our employees are key to our success as a company, and we are committed to attracting, developing and retaining the best talent. Many of our employees are highly skilled in technical areas related to energy storage, and our philosophy is to both develop talent from within as well as strategically hire qualified individuals with the skills, experience and industry knowledge necessary to contribute to the growth and success of ESS. We also supplement our workforce with consultants or independent contractors as necessary. In order to retain top talent, we have designed our compensation program to provide employees with competitive compensation and benefits consistent with positions, skill levels, experience, knowledge, and geographic location. We are also continuously working to improve our recruiting, retention and development processes as our operations grow.

Executive management assists our board of directors in its oversight of human capital management including with respect to corporate culture, diversity and inclusion, recruiting, retention, attrition, talent management, career development and progression, succession and employee relations.

The success of our business is connected to the well-being of our team members. Accordingly, we are committed to the health, safety and wellness of our team members worldwide. To date, we have not experienced any work stoppages and we consider our relationship with our employees to be good. None of our employees are represented by a labor union or subject to a collective bargaining agreement.

### **Recent Developments**

On February 13, 2025, Eric Dresselhuys, Chief Executive Officer of the Company, separated from the Company and resigned as a member of our board of directors. In connection with Mr. Dresselhuys' departure, Kelly F. Goodman, the Company's then Vice President of Legal and Corporate Secretary, was appointed as the interim Chief Executive Officer and principal executive officer of the Company, effective February 13, 2025. Ms. Goodman is being supported by an Office of the Interim CEO, which includes Ms. Goodman, Anthony Rabb, Chief Financial Officer, and Ben Heng, EVP of Engineering.

### **Available Information**

Our investor relations website is located at <https://investors.essinc.com/>, our Company X account is located at [https://x.com/ESS\\_info](https://x.com/ESS_info), and our corporate LinkedIn account is located at <https://www.linkedin.com/company/energy-storage-systems/>. The information on, or that can be accessed through, our website and the aforementioned X account and LinkedIn account is not incorporated by reference into this Annual Report and should not be considered to be part of this Annual Report on Form 10-K unless expressly noted. Further, our references to website URLs are intended to be inactive textual references only. We may use our investor relations website and the aforementioned X account and LinkedIn account to post important information for investors, including news releases, analyst presentations, and supplemental financial information, and as a means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD. Accordingly, investors should monitor our investor relations website and the aforementioned X account and LinkedIn account, in addition to following press releases, filings with the Securities and Exchange Commission (the "SEC") and public conference calls and webcasts.

We will file or furnish periodic reports and amendments thereto, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K (and amendments to those reports), proxy and information statements and other information filed or furnished pursuant to Sections 13(a) and 15(d) of the Exchange Act with the SEC. The SEC maintains a website that contains reports, proxy and information statement, and other information regarding issuers that file electronically, which may be accessed through the SEC at <http://www.sec.gov>. Our reports, amendments thereto, proxy statements and other information are also made available, free of charge, on our investor relations website as soon as reasonably practicable after we electronically file or furnish such information with the SEC. All statements made in any of our securities filings, including all forward-looking statements or information, are made as of the date of the document in which the statement is included, and we do not assume or undertake any obligation to update any of those statements or documents unless we are required to do so by law.

### **ITEM 1A. RISK FACTORS**

*Investing in our securities involves a high degree of risk. Before making an investment decision, you should consider carefully the risks and uncertainties described below, together with all of the other information in this Annual Report on Form 10-K, including our financial statements and related notes thereto included elsewhere in this Annual Report on Form 10-K and in our other filings with the SEC. Our business, operating results, financial condition or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material. If any of the risks actually occur, our business, operating results, financial condition and prospects could be adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment. References to "we," "our," or "us" generally refer to ESS, unless otherwise specified.*

#### **Summary Risk Factors**

Our business is subject to numerous risks and uncertainties. The following is a summary of the principal risks we face:

- We face significant barriers in our attempts to produce our energy storage products, certain of our energy storage products are still under development, and we may not be able to successfully develop our energy storage products at commercial scale. If we cannot successfully overcome those barriers, our business will be negatively impacted and could fail;

- We are in the early stage of commercialization. In addition, certain aspects of our technology have not been fully field tested. If we are unable to develop our business and effectively commercialize our energy storage products as anticipated, we may not be able to generate significant revenues or achieve profitability;
- We depend on third-party suppliers for the development and supply of key raw materials and components for our energy storage products. We also depend on vendors for the shipping of our energy storage products. Quality issues or delays in our supply or delivery chain and shipments could harm our ability to manufacture, supply and commercialize our energy storage products;
- We have experienced in the past, and may experience in the future, delays, disruptions, or quality control problems in our manufacturing operations;
- We may be unable to adequately control the costs associated with our operations and the components necessary to build our energy storage products, and if we are unable to reduce our cost structure and effectively scale our operations in the future, our ability to become profitable may be impaired;
- Our cost reduction strategy may not succeed or may be significantly delayed, which may result in our inability to achieve profitability;
- We rely on complex machinery for our operations and the production of our iron flow batteries involves a significant degree of risk and uncertainty in terms of operational performance and costs;
- Our future success depends in part on our ability to increase our production capacity, and we may not be able to do so in a cost-effective manner. If we elect to expand our production capacity by constructing or leasing one or more new manufacturing facilities, we may encounter challenges relating to the construction, management and operation of such facilities;
- If required maintenance is performed incorrectly or if maintenance requirements exceed our current expectations, this could adversely affect our reputation, prospects, business, financial condition and results of operations;
- Our relationships with related parties, SBE, an affiliate of SoftBank Group Corp., and Honeywell, are subject to various risks which could adversely affect our business and future prospects;
- We have a history of losses and have to deliver significant business growth to achieve sustained, long-term profitability and long-term commercial success;
- Our warranty insurance provided by Munich Re is important to many potential customers. Should we be unable to maintain our relationship with Munich Re and be unable to find a similar replacement, demand for our products may suffer;
- Failure to deliver the benefits offered by our technology, or the emergence of improvements to competing technologies, could reduce demand for our energy storage products and harm our business;
- Our plans are dependent on the development of market acceptance of our products and long duration energy storage technology;
- As deployment of our energy storage products increases, we will incur corresponding warranty obligations and our warranty obligations may be significant. If our energy storage products do not operate successfully in the field or if we are unable to manage our warranty costs, our business and ability to generate revenue and achieve profitability could fail;
- We may face regulatory challenges to or limitations on our ability to sell our products directly in certain markets. Expanding operations internationally could expose us to additional risks;
- If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, then our business and results of operations could be materially harmed; and
- As we endeavor to expand our business, we will incur significant costs and expenses, which could outpace our cash reserves. We will need to raise additional capital in the near future, and it may not be available on acceptable terms, if at all. Unfavorable conditions or disruptions in the capital and credit markets may also adversely impact business conditions and the availability of credit.

The following risk factors apply to our business and operations. These risk factors are not exhaustive, and investors are encouraged to perform their own investigation with respect to our business, financial condition and prospects. We may face additional risks and uncertainties that are not presently known to us, or that we currently deem immaterial, which may also impair our business. The following discussion should be read in conjunction with the financial statements and notes to the financial statements included elsewhere in this Annual Report on Form 10-K.



## **Risks Related to Our Technology, Products and Manufacturing**

***We face significant barriers in our attempts to produce our energy storage products, certain of our energy storage products are still under development, and we may not be able to successfully develop our energy storage products at commercial scale. If we cannot successfully overcome those barriers, our business will be negatively impacted and could fail.***

Producing long-duration iron flow batteries that meet the requirements for wide adoption by commercial and utility-scale energy storage applications is a difficult undertaking. We are still in the early stage of commercialization and have faced and may yet face significant challenges in completing the development of our various energy storage products and in producing our energy storage products in commercial volumes. Some of the challenges that could prevent the successful scaling of our iron flow battery products include difficulties with (i) increasing manufacturing capacity to produce the volume of cells needed for our energy storage products, (ii) installing and optimizing higher volume manufacturing equipment, (iii) packaging our batteries to ensure adequate cycle life, (iv) cost reduction, (v) qualifying new vendors and subcomponents, (vi) expanding supply chain capacity, (vii) the completion of rigorous and challenging battery safety testing required by our customers or partners, including but not limited to, performance, life and abuse testing and (viii) the development of the final manufacturing processes and specifications.

As of December 31, 2024, we had limited deployment of our energy storage products and there may be significant yield, cost, performance and manufacturing process challenges to be solved as we ramp up commercial production and use. Our core technology components in the Energy Warehouse, the Energy Center, and the Energy Base products are also still under development for integration into third-party systems. We have encountered and are likely to further encounter engineering challenges as we seek to increase the capacity, duration, efficiency and reliability of our batteries. If we are not able to overcome these barriers in developing and producing our iron flow batteries, our business could fail. If the performance characteristics or other specifications of the batteries fall short of our targets, our sales, product pricing and margins would likely be adversely affected.

***We are in the early stage of commercialization. In addition, certain aspects of our technology have not been fully field tested. If we are unable to develop our business and effectively commercialize our energy storage products as anticipated, we may not be able to generate significant revenues or achieve profitability.***

The growth and development of our operations will depend on the successful commercialization and market acceptance of our energy storage products and our ability to manufacture products at scale while timely meeting customers' demands. There is no certainty that, once shipped, our products will operate over the long term as expected, and we may not be able to generate sufficient customer confidence in our latest designs and ongoing product improvements or to perform under our contracts with customers. There are inherent uncertainties in our ability to predict future demand for our energy storage products and, as a consequence, we may have inadequate production capacity to meet demand, or alternatively, have excess available capacity. Our inability to predict the extent of customer adoption of our proprietary technologies in the already-established traditional energy storage market makes it difficult to evaluate our future prospects.

As of December 31, 2024, we had limited Energy Warehouse products fully deployed and only initial deliveries and deployment of our Energy Center products. Production and productized versions of our core component technology is still under development. We have experienced various quality and performance issues with units that have been installed and although we have worked to repair or replace any known issues, our inability to address these or potential new issues effectively may have cost and warranty implications and may affect the acceptance of our products in the market. In addition, although we believe our iron flow battery technology is field tested and ready for sale, there are no assurances that our proprietary technologies, such as our Proton Pump, will operate as expected and with consistency over time. We have also experienced grid compatibility and other site integration issues that are not within our control, which has required and will continue to require an adjustment of our power electronics and energy management system interface on a site-by-site basis. Certain operational characteristics have never been witnessed in the field and as we deploy more of our products, we may discover further aspects of our technology that require improvement. Any of these issues could delay existing contracts and new sales, result in order cancellations, result in significant warranty obligations, and negatively impact the market's acceptance of our technology. If we experience significant delays, order cancellations or warranty claims, or if we fail to develop and install our energy storage products in accordance with contract specifications, then our operating results and financial condition could be adversely affected. In addition, there is no assurance that if we alter or change our energy storage products in the future, that the demand for these new products will develop, which could adversely affect our business and revenues. If our energy storage products are not deemed desirable and suitable for purchase and we are unable to establish a customer base, we may not be able to generate significant revenues or attain profitability.

***We depend on third-party suppliers for the development and supply of key raw materials and components for our energy storage products. We also depend on vendors for the shipping of our energy storage products. Quality issues or delays in***

***our supply or delivery chain and shipments could harm our ability to manufacture, supply and commercialize our energy storage products.***

We depend on third-party suppliers for the development and supply of key raw materials and components for our energy storage products, including power module components (e.g., bipolar plates, frames, end plates and separators), shipping containers, chemicals and electronic components. We will need to maintain and significantly grow our access to key raw materials and control our related costs. We use various raw materials and components to construct our energy storage products, including polypropylene, iron and potassium chloride, that are critical to our manufacturing process. We also rely on third-party suppliers for injected molded parts and power electronics which undergo a qualification process that can take months.

The cost of components for our iron flow batteries, whether manufactured by our suppliers or by us, depends in part upon the prices and availability of raw materials. In recent periods, we have seen an increase in costs for a wide range of materials and components and such increases may continue, particularly if we again experience high rates of inflation. Additionally, supply chain disruptions and access to materials have impacted and continue to impact our vendors and suppliers' ability to deliver materials and components to us in a timely manner. We have experienced significant disruptions to key supply chains, shipping times, shipping availability, manufacturing times, and increases in associated costs, both with respect to the sourcing of supplies and the delivery of our products. We have experienced and may continue to experience supply chain issues, delays to deliveries, and vendor quality issues, as well as increases in our supply costs of many of our key components, including polypropylene, resin, power electronics, circuit board components and shipping containers. Such issues have also affected the ramping up of our automated production line. If we experience similar issues in the future, including any delays of deliveries of additional manufacturing automation equipment that we require, they may further delay our ability to produce and deliver our products and to recognize additional revenue, particularly for our larger scale Energy Center products (see also "*Part II—Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Components of Results of Operations—Revenue*").

We expect prices for materials to fluctuate over time. Available supply for materials may also be unstable, depending on market conditions and global demand for these materials, including as a result of increased global production of batteries and energy storage products. For example, our Proton Pump is manufactured with certain raw materials, which not only include precious and non-precious metals but also carbon, graphite and thermoplastics, the prices of which have historically fluctuated on a cyclical basis and depend on a variety of factors over which we have no control. We have also experienced increased prices and/or inconsistent quality and supply of other electrical components and power module components including frames, end plates and separators. Any reduced availability of these materials may impact our ability to manufacture our products and any further increases in their prices may reduce our profitability if we cannot recoup the increased costs through increased prices for our products. In addition, we utilize shipping containers to house our iron flow batteries within our Energy Warehouse and Energy Center products. Shipping delays caused by various economic, weather and COVID-19 pandemic effects created a shortage in shipping containers and other supply chain delays in the past and may again in the future. We have limited visibility into these supply chain disruptions and increased shipping container costs. Given that our product currently relies on the availability of shipping containers, such shortages may reduce our profitability if we are not able to pass the increased costs to our customers. Moreover, any such attempts to increase product prices may be difficult to achieve and even if achieved, may harm our brand, prospects and operating results.

In addition, the conflicts in Ukraine and the Middle East have led to disruption, instability and volatility in the global markets and certain industries and may also lead to further disruptions, particularly if the conflicts were to escalate further, that could negatively impact our operations and our supply chain. The U.S. government and other governments have imposed severe sanctions and export controls against Russia and Russian interests and continue to impose additional sanctions and controls. The impact of these measures, as well as potential responses to them by Russia, is currently unknown and they could adversely affect our business, supply chain, partners or customers.

We depend on third-party vendors for the shipping of our energy storage products. We have in the past faced and may yet again face disruptions in the logistics sector making it more challenging to find trucks to ship our products. The shipping of our products to customers internationally in a timely, cost-effective, and secure manner that does not damage our products has proved and may again prove to be challenging. The failure to deliver our products in a timely fashion or within budget may also harm our brand, prospects and operating results. In addition, if our batteries are damaged during shipment, we may be required to repair or replace such units.

***We do not know whether we will be able to maintain long-term supply relationships with our critical suppliers, or, if required, secure new long-term supply relationships on terms that will allow us to achieve our objectives.***

We continually evaluate and qualify new suppliers. However, there are a limited number of suppliers for some of the key components of our products and we have, to date, fully qualified only a very limited number of such suppliers. Therefore, we have limited flexibility in changing suppliers. In addition, we have had issues with inconsistent quality and supply of certain key power module components. We do not know whether we will be able to maintain long-term supply

relationships with our critical suppliers, or, if required, secure new long-term supply relationships on terms that will allow us to achieve our objectives. A supplier's failure to develop and supply components in a timely manner, to supply components that meet our quality, quantity, cost requirements or our technical specifications, to support our warranty claims, or our inability to obtain alternative sources of these components on a timely basis or on terms acceptable to us, could each harm our ability to manufacture and commercialize our energy storage products. In addition, to the extent the processes that our suppliers use to manufacture components are proprietary, we may be unable to obtain comparable components from alternative suppliers, all of which could harm our business, financial condition and results of operations.

In the long term, we intend to supplement certain components from our suppliers by manufacturing them ourselves, which we believe will be more efficient and manufacturable at greater volumes and cost-effective than currently available components. However, our efforts to develop and manufacture such components have required and may require significant investments, and there can be no assurance that we will be able to accomplish this in the timeframes that we have planned or at all. If we are unable to do so, we may have to curtail our product production or procure additional raw materials and components from suppliers at potentially greater costs, either of which may harm our business and operating results.

***We have experienced in the past, and may experience in the future, delays, disruptions, or quality control problems in our manufacturing operations.***

Our manufacturing and testing processes require significant technological and production process expertise and modification to support our projected business objectives. We have already experienced various issues related to the scaling up of the manufacturing process and while we seek to prevent the reoccurrence of such issues, there can be no assurance that such issues will not reoccur in the future. In addition, any change in our processes could cause one or more production errors, requiring a temporary suspension or delay in our production line until the errors can be researched, identified, and properly addressed and rectified. This may occur particularly as we introduce and transition to new products, modify our engineering and production techniques, and/or expand our capacity. In addition, our failure to maintain appropriate quality assurance processes could result in increased product failures, loss of customers, increased warranty reserves, increased production, and logistical costs and delays. Any of these developments could lead to current and potential customers cancelling or postponing their purchases of our products, which could have a material adverse effect on our business, financial condition and results of operations.

***We may be unable to adequately control the costs associated with our operations and the components necessary to build our energy storage products, and if we are unable to reduce our cost structure and effectively scale our operations in the future, our ability to become profitable may be impaired.***

Our ability to become profitable in the future will not only depend on our ability to successfully market our products but also to control our manufacturing costs. If we are unsuccessful in our cost-reduction plans or if we experience design or manufacturing defects or other failures as a result of these design changes, we could incur significant manufacturing and re-engineering costs. In addition, we will require significant capital to further develop and grow our business and expect to incur significant expenses, including those relating to research and development, raw material procurement, leases, sales and distribution as we build our brand and market our products, and general and administrative costs as we scale our operations. If we are unable to cost-efficiently design, manufacture, market, sell and distribute our energy storage products, our margins, profitability and prospects would be materially and adversely affected.

Substantial increases in the prices of raw materials would increase our operating costs and could adversely affect our profitability. The price of oil likewise fluctuates on a cyclical basis and any increase in price may affect the cost of manufacturing, distributing and transporting our products. If we are unable to pass any such increased costs to our customers, this could have a material adverse effect on our business, financial condition and results of operations.

In order to achieve our business plan and reach profitability, we must continue to increase the number of units sold and reduce the manufacturing and development costs for our products as at current volumes, production costs for our units significantly exceed their selling price. Additionally, certain of our existing customer contracts were entered into based on projections regarding cost reductions that assume continued advances in our manufacturing and services processes that we may be unable to realize. The cost of components and raw materials, for example, has been increasing and could continue to increase in the future, offsetting any successes in reducing our manufacturing costs. Any such increases could slow our growth and cause our financial results and operational metrics to suffer. In addition, we may face increases in our other expenses including increases in wages or other labor costs as well as installation, marketing, sales or related costs. In order to expand into new markets (especially markets in which the price of electricity from the grid is lower), we will need to continue to reduce our costs. Increases in any of these costs or our failure to achieve projected cost reductions could adversely affect our results of operations and financial condition and harm our business and prospects. If we are unable to reduce our cost structure in the future, we may not be able to achieve profitability, which could have a material adverse effect on our business and our prospects.

Further, we have not yet produced our products at volume and our expected cost advantage for the production of these products at scale, compared to conventional lithium-ion cells, will require us to achieve rates of throughput, use of electricity and consumables, yield, and rates of automation demonstrated for mature battery, battery material, and manufacturing processes, that we have not yet achieved. If we are unable to achieve these targeted rates, our business will be adversely impacted.

***Our cost reduction strategy may not succeed or may be significantly delayed, which may result in our inability to achieve profitability.***

Our ability to successfully implement our overall business strategy relies on our ability to reduce development and manufacturing costs in the future and thereby lower our selling price. Our cost reduction strategy is based on the assumption that increases in production will result in economies of scale. In addition, our cost reduction strategy relies on advancements in our manufacturing process, global competitive sourcing, engineering design, reducing the cost of capital and technology improvements (including stack life and projected power output). Its successful implementation also depends on a number of factors, some of which are beyond our control, including the impact of inflation and the timely delivery of key supplies at reasonable prices. For example, our current supply imbalance may result in additional costs that exceed our current expectations. There is no assurance that our cost reduction strategy will be successful and failure to achieve our cost reduction targets could have a material adverse effect on our business, financial condition and results of operations.

***We rely on complex machinery for our operations and the production of our iron flow batteries involves a significant degree of risk and uncertainty in terms of operational performance and costs.***

We rely heavily on complex machinery for our operations and manufacturing and this equipment has not yet been used before for the large-scale manufacturing of iron flow battery products. The work required to integrate this equipment into the production of our iron flow battery product is time intensive and requires us to work closely with the equipment provider to ensure that it works properly for our unique iron flow battery technology. This integration work will involve a significant degree of uncertainty and risk and may result in a delay in the scaling up of production or result in additional cost to our iron flow batteries.

Our manufacturing facility utilizes large-scale machinery, particularly for the automated production line. Such machinery is likely to suffer unexpected malfunctions from time to time and will require repairs and spare parts to resume operations, which may not be available when needed. Unexpected malfunctions of our production equipment may significantly affect the intended operational efficiency or yield. Some examples would be inadequate bonding of the battery cells resulting in overboard or internal leakage, damage to the separator, or cracked bipolar or monopolar plates. In addition, because this equipment has never been used to build iron flow battery products, the operational performance and costs associated with this equipment can be difficult to predict and may be influenced by factors outside of our control, such as, but not limited to, failures by suppliers to deliver necessary components of our energy storage products in a timely manner and at prices and volumes acceptable to us, environmental hazards and remediation, difficulty or delays in obtaining governmental permits, damages or defects in systems, industrial accidents, fires, seismic activity and other natural disasters.

Operational problems with our manufacturing equipment could result in the personal injury to or death of workers, the loss of production equipment, damage to manufacturing facilities, monetary losses, delays and unanticipated fluctuations in production. In addition, operational problems may result in environmental damage, administrative fines, increased insurance costs and potential legal liabilities. All of these operational problems could have a material adverse effect on our business, cash flows, financial condition or results of operations.

***Our future success depends in part on our ability to increase our production capacity, and we may not be able to do so in a cost-effective manner. If we elect to expand our production capacity by constructing or leasing one or more new manufacturing facilities, we may encounter challenges relating to the construction, management and operation of such facilities.***

In order to grow our business, we will need to increase our production capacity. For example, our current manufacturing capacity may not be sufficient to meet our planned production targets and we are currently seeking to expand our capacity. Our ability to plan, develop and equip additional manufacturing facilities is subject to significant risks and uncertainties, including but not limited to the following:

- The expansion or construction of any manufacturing facilities will be subject to the risks inherent in the development and construction of new facilities, including risks of delays and cost overruns as a result of factors outside our control, which may include delays in government approvals, burdensome permitting conditions, and delays in the delivery or installation of manufacturing equipment and subsystems that we manufacture or obtain from suppliers, similar to or more severe than what we have experienced recently.



- In order for us to expand internationally, we anticipate entering into strategic partnerships, joint ventures and licensing agreements that allow us to add manufacturing capability outside of the United States. Adding manufacturing capacity in any international location will subject us to new laws and regulations including those pertaining to labor and employment, environmental and export/import. In addition, any such expansion brings with it the risk of managing larger scale foreign operations.
- We may be unable to achieve the production throughput necessary to achieve our target annualized production run rate at our current and future manufacturing facilities.
- Manufacturing equipment may take longer and cost more to engineer and build than expected and may not operate as required to meet our production plans.
- We may depend on third-party relationships in the development and operation of additional production capacity, which may subject us to the risk that such third parties do not fulfill their obligations to us under our arrangements with them.
- We may be unable to obtain financing needed to build future manufacturing facilities.
- We may be unable to attract or retain qualified personnel.

If we are unable to expand our manufacturing facilities, we may be unable to further scale our business, which would negatively affect our results of operations and financial condition. We cannot provide any assurances that we would be able to successfully establish or operate an additional manufacturing facility in a timely or profitable manner, or at all, or within any expected budget for such a project. The construction of any such facility would require significant capital expenditure and result in significantly increased fixed costs. If we are unable to transition manufacturing operations to any such new facility in a cost-efficient and timely manner, then we may experience disruptions in operations, which could negatively impact our business and financial results. Further, if the demand for our products decreases or if we do not produce the expected output after any such new facility is operational, we may not be able to spread a significant amount of our fixed costs over the production volume, thereby increasing our per product fixed cost, which would have a negative impact on our business, financial condition and results of operations.

In addition, if any of our partners suffer from capacity constraints, deployment delays, work stoppages or any other reduction in output, we may be unable to meet our delivery schedule, which could result in lost revenue, damages, and deployment delays that could harm our business and customer relationships. If the demand for our iron flow batteries or our production output decreases or does not rise as expected, we may not be able to spread a significant amount of our fixed costs over the production volume, resulting in a greater than expected per unit fixed cost, which would have a negative impact on our financial condition and our results of operations.

Our ability to expand our manufacturing capacity would also greatly depend on our ability to hire, train and retain an adequate number of manufacturing employees, in particular employees with the appropriate level of knowledge, background and skills. Should we be unable to hire, train, or retain such employees, our business and financial results could be negatively impacted.

***We have in the past and may be compelled in the future to undertake product recalls or take other actions, which could adversely affect our business, prospects, operating results, reputation and financial condition.***

We have in the past and may be compelled in the future to undertake product recalls. For example, in the past, we had to recall our Gen I battery modules due to vendors not properly manufacturing the parts to our specifications and we have also had to replace, and may again be required to replace, certain components of our products delivered to customers to date. Any quality issues can result in single module failures or can result in a cascade of numerous failures. Failures in the field can result in a single module replacement or may result in a total recall depending on the severity or contamination to the remainder of the system.

Any product recall in the future may result in adverse publicity, damage our reputation and adversely affect our business, financial condition and results of operations. In the future, we may, voluntarily or involuntarily, initiate a recall if any of our products or components prove to be defective or noncompliant with applicable safety standards. Such recalls, whether caused by systems or components engineered or manufactured by us or our suppliers, would involve significant expense, damages and diversion of management's attention and other resources, which could adversely affect our brand image in our target market and our business, financial condition and results of operations.

***If required maintenance is performed incorrectly or if maintenance requirements exceed our current expectations, this could adversely affect our reputation, prospects, business, financial condition and results of operations.***

Our energy storage products require periodic maintenance or refurbishment, such as the cleaning or replacement of air filters or other components, inspection and re-torquing of electrical or mechanical fasteners, and the replenishment of

hydrogen. Maintenance items are intended to be scheduled on a periodic basis but may vary depending on system operations. We currently rely on our customers that do not have service agreements with us or that perform maintenance that is not covered by such agreements to follow our product operations and maintenance manuals. We have had, and in the future may continue to have, incidents of failure to maintain or perform required maintenance correctly that damage or adversely affect the performance of our energy storage products and/or result in the leakage of electrolyte. In addition, we have had, and in the future may continue to have, components such as our electrolyte rebalancing cell that have a shorter service life than anticipated and require replacement in lieu of maintenance. Furthermore, there is risk of harm to persons or property if individuals performing maintenance do not follow applicable maintenance or safety protocols. Any such incident or harm would likely lead to adverse publicity and potentially a safety recall, decisions or mandates to temporarily halt production or implement an extended suspension of field operations, and expenses related to carrying out site remediation, revising our training programs and updating our maintenance manual, and could also adversely affect our reputation, customer's willingness to place future orders, our operating results and prospects, business, financial condition and results of operations.

In addition, for customers that have purchased maintenance services from us, unforeseen issues may arise that may require maintenance beyond what we currently expect. We have no experience providing maintenance on a large scale and since our existing and potential customers are geographically dispersed, if any recurring or significant one-off maintenance is required, this could increase our costs.

### **Risks Related to Our Business and Industry**

***Our expectations for future operating and financial results and market growth rely in large part upon assumptions and analyses developed by us. If these assumptions or analyses prove to be incorrect, our actual operating results may be materially different from our anticipated results.***

We operate in rapidly changing and competitive markets and our expectations for future performance are subject to the risks and assumptions made by management with respect to our industry. Operating results are difficult to predict because they generally depend on our assessment of the timing of adoption of our technology and energy storage products, which is uncertain. Expectations for future performance are also subject to significant economic, competitive, industry and other uncertainties and contingencies, all of which are difficult or impossible to predict and many of which are beyond our control, and subsequent developments may affect such expectations. As discussed elsewhere in this Annual Report on Form 10-K, any future sales and related future cash flows may not be realized in full or at all. Furthermore, our planned expansion into new revenue streams such as franchising opportunities for our energy storage products may never be realized or achieve commercial success, whether because of lack of market adoption of our energy storage products, competition or otherwise. Important factors that may affect the actual results and cause our operating and financial results and market growth expectations to not be achieved include risks and uncertainties relating to our business, industry performance, the regulatory environment, general business and economic conditions and other factors described under the section entitled “*Cautionary Note Regarding Forward-Looking Statements*” in this Annual Report on Form 10-K.

In addition, expectations for future performance also reflect assumptions that are subject to change and do not reflect revised prospects for our business, changes in general business or economic conditions or any other transaction or event that has occurred or that may occur and that was not previously anticipated. In addition, long-term expectations by their nature become less predictive with each successive year. There can be no assurance that our future financial condition or results of operations will be consistent with our expectations or with the expectations of investors or securities research analysts, which may cause the market price of our common stock to decline. If actual results differ materially from our expectations, we may be required to make adjustments in our business operations that may have a material adverse effect on our financial condition and results of operations.

***We have a history of losses and have to deliver significant business growth to achieve sustained, long-term profitability and long-term commercial success.***

We have had net losses on a U.S. GAAP basis in each fiscal year since our inception. For the years ended December 31, 2024 and 2023, we had \$86.2 million and \$77.6 million in net losses, respectively, and as of December 31, 2024 we had \$782.4 million in accumulated deficit. In order to achieve profitability as well as long-term commercial success, we must continue to execute our plan to expand our business, which will require us to deliver on our existing global sales pipeline in a timely manner, increase our production capacity, reduce our manufacturing and warranty costs, competitively price and grow demand for our products, and seize new market opportunities by leveraging our proprietary technology and our manufacturing processes for novel solutions and new products. Failure to do one or more of these things could prevent us from achieving sustained, long-term profitability.

We expect, based on our sales pipeline, to grow revenues. However, our revenue may not grow as expected for a number of reasons, many of which are outside of our control, including a decline in global demand for iron flow battery storage

products, increased competition, or our failure to continue to capitalize on growth opportunities. If we are not able to generate and grow revenue and raise the capital necessary to support our operations, we may be unable to continue as a going concern.

***The report of our independent registered public accounting firm includes a “going concern” explanatory paragraph.***

We will require substantial additional funds to continue our operations. Our cash and cash equivalents and short-term investments were \$31.6 million at December 31, 2024. Given our planned expenditures for the next year, we have concluded, and our independent registered public accounting firm has agreed with our conclusion that there is a substantial doubt regarding our ability to continue as a going concern for a period of at least 12 months beyond the filing of this Annual Report on Form 10-K. As a result, the report of our independent registered public accounting firm on our financial statements for the year ended December 31, 2024 includes an explanatory paragraph regarding the existence of substantial doubt about our ability to continue as a going concern. Any such inability to continue as a going concern may result in our stockholders losing their entire investment. There is no guarantee that we will become profitable or secure additional financing on acceptable terms. Further, the inclusion of disclosures expressing substantial doubt about our ability to continue as a going concern could materially adversely affect our stock price and our ability to raise new capital or enter into partnerships or other agreements.

We have prepared our consolidated financial statements on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. Our audited consolidated financial statements included in this Annual Report on Form 10-K do not include any adjustments to reflect the possible inability to continue as a going concern within at least 12 months after the issuance of such financial statements.

***There is no assurance nonbinding pre-orders or framework agreements will be converted into binding orders or that orders will be completed.***

Our business model is focused on building relationships with large customers. To date, we have engaged in limited marketing activities and we have only a limited number of contracts with customers. Certain of our energy storage products are still subject to further design evolution and until the time that the design and development of our energy storage products stabilizes, and until we are able to scale up our marketing function to support sales, there will be uncertainty as to customer demand for our energy storage products. Demand for our energy storage products by independent energy developers may depend upon a bankability determination by institutional sources of project finance capital and that determination may be difficult to obtain. The potentially long wait from the time an order is made until the time our energy storage products are delivered, and any delays beyond expected wait times, could also impact user decisions on whether to ultimately make a purchase. There is no assurance that nonbinding pre-orders or framework agreements will be converted into binding orders or sales. Even if we are able to obtain binding orders, customers may limit their volume of purchases initially as they assess our products and whether to make a broader transition to our energy storage products. This may be a long process and will depend on the safety, reliability, efficiency and quality of our energy storage products, as well as the support and service that we offer. It will also depend on factors outside of our control, such as general market conditions and site capacity, that could impact customer buying decisions. As a result, there is significant uncertainty regarding demand for our energy storage products and the pace and levels of growth that we will be able to achieve.

In addition, some of the Energy Warehouse units we have shipped to date have not met the specifications set forth in the purchase contracts for such units, resulting in additional installation time and costs in order to receive customer acceptance of such units. If we are unable to meet contractual performance specifications of our units, customers may bring claims against us or choose to cancel or postpone orders, which would adversely affect our business, financial condition and results of operations.

***Our warranty insurance provided by Munich Re is important to many potential customers. Should we be unable to maintain our relationship with Munich Re and be unable to find a similar replacement, demand for our products may suffer.***

Our warranty insurance provided by Munich Re is important to many potential customers, and such warranty insurance is a bespoke product not widely offered by multiple insurers. There is no assurance that we will be able to maintain our relationship with Munich Re. If Munich Re terminates or significantly alters its relationship with us in a manner that is adverse to the Company, our business would be materially adversely affected. Similarly, if we are unable to maintain our relationship with Munich Re, or if our arrangement with Munich Re is modified so that the economic terms become less favorable to us, we may be unable to find a similar replacement warranty insurance and our business would be materially adversely affected.

***Failure to deliver the benefits offered by our technology, or the emergence of improvements to competing technologies, could reduce demand for our energy storage products and harm our business.***

We believe that, compared to lithium-ion batteries, our energy storage solutions offer significant benefits, including using widely available, low-cost materials with no rare mineral components, being substantially recyclable or reusable at end-of-life, having a 25-year product design life, and having a wide thermal operating range that reduces the need for fire suppression and heating (except where otherwise required by applicable law), ventilation and air conditioning equipment, which would otherwise be required for use with lithium-ion batteries. While we believe that total cost of ownership pricing is the key consideration, lithium-ion battery pack selling costs have decreased significantly over time and may decrease further in the future. While we have also decreased our selling costs, if we are unable to further decrease our costs or if our manufacturing costs increase, if our or our customers' expectations regarding the operation, performance, maintenance and disposal of our energy storage products are not realized, or if local regulations require alterations to our equipment, then we could have difficulty marketing our energy storage products as a superior alternative to already-established technologies. This would also impact the market reputation and adoptability of our energy storage products.

We also currently market our energy storage products as having superior design cyclability to other energy storage solutions on the market. However, in general, flow batteries have suffered challenges running multiple cycles over their lifetime without experiencing degradation in storage capacity and, in particular, earlier iterations of our iron flow batteries, specifically our first-generation units, failed at cycling reliably. All of our first-generation units (except for one) have been returned to us and the continuing risk of product failure on our first-generation units is limited. However, there is no assurance that our later-generation units will not fail or have issues cycling in the future if our technology does not operate as expected. If our technology is inadequate or our energy storage solutions fail to operate as expected or designed, our warranty costs may be significant and current and potential customers may choose to cancel or postpone orders or seek alternative solutions for their energy storage needs, which would adversely affect our business, financial condition and results of operations.

In addition, developments of existing and new technologies could improve the cost and usability profile of such alternative technologies, reducing any relative benefits currently offered by our energy storage products, which would negatively impact the likelihood of our energy storage products gaining market acceptance.

***Our plans are dependent on the development of market acceptance of our products and long duration energy storage technology.***

Our plans are dependent upon market acceptance of our products and our ability to effectively educate potential customers on the benefits of our technology. Iron flow batteries represent an emerging market, and we cannot be sure that potential customers will accept iron flow batteries as a replacement for traditional power sources. In particular, traditional lithium-ion batteries, which are already produced on a large global scale and have widespread market acceptance, offer higher power density and round-trip efficiency than our iron flow batteries. If customers were to place greater value on power density and round-trip efficiency over what we believe to be the numerous other advantages of our technology, then we could have difficulty positioning our iron flow batteries as a viable alternative to traditional lithium-ion batteries and our business would suffer.

As is typical in a rapidly evolving industry, demand and market acceptance for recently introduced products and services are subject to a high level of uncertainty and risk. It is difficult to predict with certainty the size of the energy storage market and its growth rate. The development of a market for our products may be affected by many factors that are out of our control, including:

- the cost competitiveness of our products including availability and output expectations and total cost of ownership;
- the future costs associated with renewable energies;
- perceived complexity and novelty of our technology and customer reluctance to try a new product;
- the market for energy storage solutions and government policies that affect those markets;
- government incentives, mandates or other programs favoring zero carbon energy sources;
- local permitting and environmental requirements;
- customer preference for lithium-ion based technologies, including but not limited to the power density offered by lithium-ion batteries; and
- the emergence of newer, more competitive technologies and products.



If a sufficient market fails to develop or develops more slowly than we anticipate, we may be unable to recover the losses we will have incurred in the development of our products, and we may never achieve profitability.

***Our future growth and success depend on our ability to sell effectively to large customers.***

Many of our potential customers are electric utilities and C&I businesses that tend to be large enterprises. Therefore, our future success will depend on our ability to effectively sell and deliver our products to such large customers. Sales to these end-customers involve risks that may not be present (or that are present to a lesser extent) with sales to smaller customers. These risks include, but are not limited to, (i) increased purchasing power and leverage held by large customers in negotiating contractual arrangements with us and (ii) longer sales cycles and the associated risk that substantial time and resources may be spent on a potential end customer that elects not to purchase our solutions.

Large organizations often undertake a significant evaluation process that results in a lengthy sales cycle. In addition, product purchases by large organizations are frequently subject to budget constraints, multiple approvals and unanticipated administrative, processing and other delays. Finally, large organizations typically have longer implementation cycles, require greater product functionality and scalability, require a broader range of services, demand that vendors take on a larger share of risks, and expect greater payment flexibility. All of these factors can add further risk to business conducted with these potential customers.

***We operate in highly competitive energy industries and there is increasing competition. Many of our competitors and potential competitors have substantially greater financial, marketing, personnel and other resources than we do and if we do not compete effectively, our competitive positioning and our operating results will be harmed.***

The energy storage markets continue to evolve and are highly competitive. Many of our current and potential competitors are large entities at a more advanced stage in development and commercialization than we are and, in some cases, have substantially greater financial, marketing, personnel and other resources, to increase their market share. Our key competitors include different energy storage technologies such as lithium-ion batteries, lithium metal batteries, vanadium or zinc bromine batteries, sodium sulfur batteries, compressed air, hydrogen, fuel cell and pumped-storage hydropower. If our competitors continue to penetrate the energy storage market, our prospects for gaining market share will be diminished.

We expect competition in energy storage technology to intensify due to a regulatory push for lower-carbon energy sources, including intermittent sources such as wind and solar, continuing globalization, and consolidation in the energy industry. Developments in alternative technologies or improvements in energy storage technology made by competitors may materially adversely affect the sales, pricing and gross margins of our products.

Some of our current and potential competitors have longer operating histories and greater financial, technical, marketing and other resources than we do. These factors may allow our competitors to respond more quickly or efficiently than we can to new or emerging technologies. These competitors may engage in more extensive research and development efforts, undertake more far-reaching marketing campaigns and adopt more aggressive pricing policies, which may allow them to more effectively compete for new energy storage projects and customers.

***Our project awards and sales pipeline may not convert to contracts or may be delayed, which may have a material adverse effect on our revenue and cash flows.***

We expect a significant portion of the business that we will seek in the foreseeable future will be awarded through competitive bidding against other energy storage technologies and other forms of power generation. The competitive bidding process involves substantial costs and a number of risks, including the significant cost and managerial time to prepare bids and proposals for contracts that may not be awarded to us, the length of time required to conclude the process, even if successful, and our failure to accurately estimate the resources and costs that will be required to fulfill any contract we win. In addition, following a contract award, we may encounter significant expense, delay or contract modifications or award revocation as a result of our competitors protesting or challenging contracts awarded to us in competitive bidding. Our failure to compete effectively in this procurement environment could adversely affect our revenue and/or profitability.

Some of the project awards we receive and orders we accept from customers require certain conditions or contingencies (such as permitting, interconnection, financing or regulatory approval) to be satisfied, some of which are outside of our control. Certain awards are cancellable or revocable at any time prior to contract execution. The time periods from receipt of an award to execution of a contract, or receipt of a contract to installation may vary widely and are determined by a number of factors, including the terms of the award, governmental policies or regulations that go into effect after the award, the terms of the customer contract and the customer's site requirements. These same or similar conditions and contingencies may be required by financiers in order to draw on financing to complete a project. If these conditions or contingencies are not satisfied, or changes in laws affecting project awards occur, or awards are revoked or cancelled, project awards may not convert to contracts, and installations may be delayed or canceled. In addition, contracted customers may have specific site requirements and interface technology or experience delays in preparing their site for

equipment installation, which has caused, and in the future may continue to cause, delays with respect to delivery and installation and potentially our ability to recognize revenue. This could have an adverse impact on our revenue and cash flow and our ability to complete construction of a project.

We also bear the risk of non-payment or late payments by our customers. In the near term, we will depend on a relatively small number of customers for a significant portion of our revenue. If these customers fail to pay us or pay us late, cash flow from operations are impacted and our operating results and financial condition could be harmed. If a contract is cancelled due to the customer's inability to pay, the redeployment of our product(s) could be expensive, and it may take time to find a replacement customer to whom our product(s) could be redeployed in a cost-effective manner.

***Our contracted sales are subject to the risk of termination by the contracting party.***

The majority of our commercial contracts contain provisions which allow the customer to terminate an agreement if certain conditions are not met, including the failure to meet performance specifications or for other defaults, or for extended force majeure. Our customers are also subject to force majeure events and may issue such notices to us. In addition, certain of our contracts can be terminated by the customer simply for convenience. We have experienced in the past, and may experience in the future, order cancellations or contract terminations, which could have an adverse impact on our revenues, longer term potential and market reputation, which would have an even greater impact on our ability to achieve future sales.

***We may not be able to accurately estimate the future supply and demand for our products and services, which could result in a variety of inefficiencies in our business and hinder our ability to generate revenue. If we fail to accurately predict our manufacturing requirements, we could incur additional costs or experience delays.***

We are a company with a limited operating history. Having only recently transitioned from research and development activities to commencing commercial production and sales, it is difficult to predict our future revenues and appropriately budget for our expenses, and we may have limited insight into trends that may emerge and affect our business. We anticipate being required to provide expectations of our demand to our current and future suppliers prior to the scheduled delivery of products to potential customers. Currently, there is limited historical basis for making judgments on the demand for our products and services or our ability to develop, manufacture, and deliver iron flow batteries, or our profitability in the future. If we overestimate our manufacturing requirements, our suppliers may have excess inventory, which indirectly would increase our costs. If we underestimate our manufacturing requirements, our suppliers may have inadequate inventory or capacity, which could interrupt manufacturing of our products and result in delays in shipments and revenues. In addition, lead times for materials and components that our suppliers order may vary significantly and depend on factors such as the specific supplier, contract terms and demand for each component at a given time. If we fail to order sufficient quantities of product components in a timely manner, the delivery of batteries to our potential customers could be delayed, which would harm our business, financial condition and results of operations.

***If we fail to manage our growth effectively, we may be unable to execute our business plan, maintain high levels of customer service, or adequately address competitive challenges.***

We intend to continue to expand our business significantly within existing and new markets. This growth has placed, and any future growth may place, a significant strain on management, operational, and financial infrastructure. In particular, we will be required to expand, train, and manage our growing employee base and scale and otherwise improve our information technology ("IT") infrastructure in tandem with that headcount growth. Management will also be required to maintain and expand our relationships with customers, suppliers, and other third parties and attract new customers and suppliers, as well as manage multiple geographic locations.

Our current and planned operations, personnel, customer support, IT, information systems, and other systems and procedures might be inadequate to support future growth and may require us to make additional unanticipated investment in our infrastructure. Our success and ability to scale our business will depend, in part, on our ability to manage these changes in a cost-effective and efficient manner. If we cannot manage our growth, then we may be unable to take advantage of market opportunities, execute our business strategies, or respond to competitive pressures. This could also result in declines in quality or customer satisfaction, increased costs, difficulties in introducing new offerings, or other operational difficulties. Any failure to effectively manage growth could adversely impact our business and reputation.

***We have signed product sales contracts and have entered into service agreements with customers. If we do not meet the obligations under these agreements or if our estimates of the projected useful life of our energy storage products are inaccurate, our business and financial results could be adversely affected.***

We have entered into service agreements with certain customers for our energy storage products with terms of up to 10 years. Under the provisions of these contracts, we will provide services to maintain, monitor, and repair our energy storage products to meet minimum operating levels. While we have conducted tests to determine the overall life of our energy

storage products, we have not run certain of our energy storage products over their projected useful life or in all potential conditions prior to large scale commercialization. As a result, we cannot be sure that these energy storage products will last to their expected useful life or perform as anticipated in all conditions, which could result in warranty claims, performance penalties, maintenance, on-going servicing and battery module replacement costs and/or a negative perception of our energy storage products.

Further, the occurrence of chronic defects or other chronic performance problems with respect to our deployed energy storage products could result in loss of customers, legal claims, including warranty and service agreement claims, or diversion of our resources, including through increased service and warranty expenses or financial concessions, and increased insurance costs. The costs incurred in correcting any material defects in our deployed energy storage products may be substantial and could adversely affect our business, financial condition, and results of operations.

Our customers also depend on our support organization to resolve performance issues relating to our energy storage products. Any failure to maintain high-quality support services, or a market perception that we do not maintain high-quality and highly responsive customer support, could adversely affect our reputation, our ability to sell our energy storage products to existing and prospective customers, and our business, financial condition and results of operations.

***Our ability to proceed with projects under development and complete construction of projects on schedule and within budget are subject to contractual, technology, operating and commodity risks as well as market conditions that may affect our operating results.***

Our ability to proceed with projects under development and complete construction of projects on schedule and within budget may be adversely affected by escalating costs and lead times for materials and components, tariffs, export controls, labor and regulatory compliance, inability to obtain necessary permits, interconnections or other approvals on acceptable terms or on schedule and by other factors. If any development project or construction is not completed, is delayed or is subject to cost overruns, we could become obligated to make delay or termination payments or become obligated for other damages under contracts, experience diminished returns or write off all or a portion of our capitalized costs in the project. Each of these events could have an adverse effect on our business, financial condition and results of operations. We currently face and will continue to face significant competition, including from products using other energy sources that may be lower priced or have preferred environmental characteristics.

We compete on the basis of our energy storage products' reliability, efficiency, environmental sustainability and cost. Technological advances in alternative energy products, improvements in the electric grid or other sources of power generation, or new battery technologies or market entrants may negatively affect the development or sale of some or all of our energy storage products or make our energy storage products less economically attractive, non-competitive or obsolete prior to or after commercialization. Significant decreases in the price of alternative technologies, or significant increases in the price of the materials we use to build our energy storage products could have a material adverse effect on our business because other generation sources could be more economically attractive to consumers than our energy storage products.

***We invest significantly in research and development, and to the extent our research and development investments are not directed efficiently or do not result in material enhancements to our products and technologies, our business and results of operations would be harmed.***

A key element of our strategy is to invest significantly in our research and development efforts to enhance the features, functionality, performance and ease of use of our products and technologies to address additional applications that will broaden the appeal of our products and technologies and facilitate their broad use. Research and development projects can be technically challenging and expensive. As a result of the nature of research and development cycles, there will be delays between the time we incur expenses associated with research and development activities and the time we are able to offer compelling enhancements to our products and technologies and generate revenue, if any, from those activities. If we expend a significant amount of resources on research and development efforts that do not lead to the successful introduction of new products, functionality or improvements that are competitive in our current or future markets, our business and results of operations will suffer.

***The loss of one or more members of our senior management team and other key personnel or our failure to attract and retain qualified personnel may adversely affect our business and our ability to achieve our anticipated level of growth.***

We depend on the continued services of our senior management team and other key personnel, each of whom would be difficult to replace. The loss of any such personnel, or the inability to effectively transition to their successors, could have a material adverse effect on our business and our ability to implement our business strategy. All of our employees, including our senior management, are free to terminate their employment relationships with us at any time. Any changes to our senior management team, including hires or departures, could cause disruption to our business and have a negative impact on operating performance, while these operational areas are in transition.

Additionally, our ability to attract qualified personnel, including senior management and key technical personnel, is critical to the execution of our growth strategy. Competition in the labor market, including for qualified senior management personnel and highly skilled individuals with technical expertise, is intense. We face and are likely to continue to face challenges identifying, hiring, and retaining qualified personnel in all areas of our business, and we can provide no assurance that we will find suitable successors as transitions occur. In addition, integrating new employees into our team, and key personnel in particular, could prove disruptive to our operations, require substantial resources and management attention, and ultimately prove unsuccessful. Our failure to attract and retain qualified personnel in all areas of our business, including senior management and other key technical personnel, could limit or delay our strategic efforts, which could have a material adverse effect on our business, financial condition and results of operations. The failure to ensure a smooth transition to a permanent Chief Executive Officer when identified could also have a material adverse effect on our business, financial condition and results of operations.

***Our results of operations may fluctuate from quarter to quarter, which could make our future performance difficult to predict and could cause our results of operations for a particular period to fall below expectations, resulting in a decline in the price of our common stock.***

Our products take months to manufacture and prepare for delivery and any revenue in future periods may fluctuate based on underlying customer arrangements. Further, we expect our arrangements may have multiple deliverables and performance obligations and the amount and timing of recognizing revenue for those different performance obligations may vary which could cause our revenue to fluctuate. Our revenues also depend on a number of other factors, some of which are beyond our control, including the impact of supply chain issues (see also “—*Risks Related to Our Technology, Products and Manufacturing—We depend on third-party suppliers for the development and supply of key raw materials and components for our energy storage products. We also depend on vendors for the shipping of our energy storage products. Quality issues or delays in our supply or delivery chain and shipments could harm our ability to manufacture, supply and commercialize our energy storage products.*”). As a result, our quarterly results of operations are difficult to predict and may fluctuate significantly in the future.

***We currently are and in the foreseeable future will be significantly dependent on a limited number of products.***

We currently are and in the foreseeable future will continue to be significantly dependent on revenue generated from our Energy Center and newly launched Energy Base products and the servicing thereof while our core component technology productization and future product offerings are under development. Given that our business currently depends on a limited number of products, to the extent our products are not well-received by the market, our sales volume, business, financial condition and results of operations would be materially and adversely affected.

***Our planned expansion into new geographic markets or new product lines or services could subject us to additional business, financial, and competitive risks.***

We have entered into contracts and other agreements to sell our products in a number of different geographic markets, including the United States, Europe (European Union (“EU”) and non-EU), Africa, and Australia. We have in the past, and may in the future, evaluate opportunities to expand into new geographic markets and introduce new product offerings and services that are a natural extension of our existing business. For example, we are launching our Energy Base product and are actively bidding on projects for daily cycling applications in the 12 to 24 hour long duration storage market to serve emerging AI/data center driven load needs and to firm baseload renewable production; however, there is no assurance that we will be able to secure any contracts for, or derive any revenue from, the installation of energy storage systems for applications in the 12 to 24 hour long duration storage market. We also may from time to time engage in acquisitions of businesses or product lines with the potential to strengthen our market position, enable us to enter attractive markets, expand our technological capabilities, or provide synergy opportunities.

Our success operating in these new geographic or product markets, or in operating any acquired business, will depend on a number of factors, including our ability to develop solutions to address the requirements of the electric utility industry and other applicable regulatory bodies, renewable energy project developers and owners, and C&I end users, our timely qualification and certification of new products, our ability to manage increased manufacturing capacity and production, and our ability to identify and integrate any acquired businesses.

Further, any additional markets that we may enter could have different characteristics from the markets in which we currently sell products, and our success will depend on our ability to adapt properly to these differences. These differences may include regulatory requirements, including tax laws, trade laws, foreign direct investment review regimes, labor regulations, tariffs, export quotas, customs duties, or other trade restrictions, limited or unfavorable intellectual property protection, international, political or economic conditions, restrictions on the repatriation of earnings, longer sales cycles, warranty expectations, product return policies and cost, certifications, and performance and compatibility requirements. In addition, expanding into new geographic markets will increase our exposure to presently existing and new risks, such as



fluctuations in the value of foreign currencies and difficulties and increased expenses in complying with United States and foreign laws, regulations and trade standards, including the Foreign Corrupt Practices Act of 1977, as amended (the “FCPA”).

Failure to develop and introduce new products successfully into the market, to successfully integrate acquired businesses or to otherwise manage the risks and challenges associated with our potential expansion into new product and geographic markets, could adversely affect our revenues and our ability to sustain profitability.

***Our business and operations may be adversely affected by outbreaks of contagious diseases and other adverse public health developments.***

Any outbreaks of contagious diseases and other adverse public health developments in countries where we and our suppliers operate, could have a material and adverse effect on our business, financial condition and results of operations. The worldwide COVID-19 pandemic resulted in, and any future pandemic or adverse public health development may again result in, disruptions to or restrictions on our workforce and facilities or those of our customers, suppliers, or other vendors in our supply chain.

The extent to which such a pandemic would impact our business and our financial results would depend on a variety of factors, which are highly uncertain and cannot be predicted. Such factors may include the geographic spread of the pandemic, the severity of the disease, the duration of the outbreak, the speed at which vaccines or other effective treatment methods are developed, the actions that may be taken by various governmental authorities in response to the outbreak, such as mandatory quarantine or “shelter-in-place” orders and business closures, and the impact on the U.S. or global economy. These and other factors could have a material adverse effect on our business, results of operations and financial position.

***We have identified material weaknesses in our internal control over financial reporting in the past, and may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate any material weaknesses or if we otherwise fail to establish and maintain effective control over financial reporting, our ability to accurately and timely report our financial results could be adversely affected.***

As a public company, we are required to comply with the SEC’s rules implementing Sections 302 and 404 of the Sarbanes-Oxley Act of 2002 (the “Sarbanes-Oxley Act”), which requires management to certify financial and other information in our quarterly and annual reports and to provide an annual management report on the effectiveness of controls over financial reporting (see “Part II—Item 9A. Controls and Procedures”). When evaluating our internal control over financial reporting, we may identify material weaknesses that we may not be able to remediate in time to meet the applicable deadline for compliance with the requirements of Section 404. If we are unable to identify and remediate material weaknesses, it could result in material misstatements to our annual or interim financial statements that might not be prevented or detected on a timely basis or result in delayed filings of required periodic reports. If we are unable to assert that our internal control over financial reporting is effective, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could be adversely affected and we could become subject to litigation or investigations by the NYSE, the SEC, or other regulatory authorities, which could require additional financial and management resources.

We have in the past identified and remediated material weaknesses in our internal control over financial reporting. Although we review and evaluate our internal control systems on a regular basis, we cannot provide any assurances that the measures that we have taken will be sufficient to prevent future material weaknesses and control deficiencies from occurring. We also cannot assure you that we have identified all of our existing material weaknesses. If further remediation measures are required, they may be time consuming, costly, and might place significant demands on our financial and operational resources.

***As deployment of our energy storage products increases, we will undertake corresponding warranty obligations and our warranty obligations may be significant. If our energy storage products do not operate successfully in the field or if we are unable to manage our warranty costs, our business and ability to generate revenue and achieve profitability could fail.***

We have experienced quality issues in the field and our products may contain undetected errors or defects, especially when first introduced or when new generations of products are released. Errors, defects, or poor performance can arise due to design flaws, defects in raw materials or components or manufacturing difficulties, which can affect the quality of our products. Any actual or perceived errors, defects, or poor performance in our products could result in repair costs or the replacement or recall of our products, shipment delays, rejection of our products, damage to our reputation, lost revenue,

diversion of our personnel from our operational efforts, and increases in customer service and support costs, all of which could have a material adverse effect on our business, financial condition, and results of operations.

Furthermore, defective components may give rise to warranty, indemnity, or environmental or product liability claims against us that exceed any revenue or profit we receive from the affected products. Our product generally comes with an initial one-year manufacturing warranty. We also offer customers an extended performance warranty at an additional cost to the customer. For extended warranties, this may require system augmentation or replacements, which could be provided at no additional charge beyond the price of the extended warranty paid by such customer.

While we have accrued reserves for warranty claims, our estimated warranty costs for previously sold products may change to the extent future products are not compatible with earlier generation products under warranty. Our warranty accruals are based on various assumptions, which are based on a short operating history. As a result, these assumptions could prove to be materially different from the actual performance of our systems, causing us to incur substantial unanticipated expenses to repair or replace defective products in the future or to compensate customers for defective products. Our failure to accurately predict future claims could result in unexpected volatility in, and have a material adverse effect on, our financial condition.

***Defects or performance problems in our products could result in loss of customers, reputational damage, and decreased revenue, and we may face warranty, indemnity, and product liability claims that may arise from defective products.***

We may become subject to product liability claims, even those without merit due to product tampering or operation and maintenance in violation of operating manuals, which could harm our business, financial condition and results of operations. We face inherent risk of exposure to claims in the event our batteries do not perform as expected or malfunction resulting in personal injury or death. Our risks in this area are particularly pronounced given our products have not yet been commercially tested at scale or mass produced. Although we seek to limit our liability, a product liability claim brought against us, even if unsuccessful, would likely be time consuming, costly to defend, and may hurt our reputation in the marketplace. A successful product liability claim against us could require us to pay a substantial monetary award. Moreover, a product liability claim could generate substantial negative publicity about our products and business and inhibit or prevent commercialization of other future battery candidates, which would have a material adverse effect on our brand, business, prospects and operating results. Any insurance coverage might not be sufficient to cover all potential product liability claims. Any lawsuit seeking significant monetary damages either in excess of our coverage, or outside of our coverage, may have a material adverse effect on our reputation, business and financial condition. We may not be able to secure additional product liability insurance coverage on commercially acceptable terms or at reasonable costs when needed, particularly if we do face liability for our products and are forced to make a claim under our policy.

In addition, as we grow our manufacturing volume, the chance of manufacturing defects could increase. We may be unable to correct manufacturing defects or other failures of our components and the products in which they are incorporated in a manner satisfactory to our customers, which could adversely affect customer satisfaction, market acceptance and our business reputation.

***Third parties might attempt to gain unauthorized access to our network or seek to compromise our products and services.***

Our business is dependent on the security and efficacy of our networks and computer and data management systems. For example, our Energy Warehouse and Energy Center products are connected to and controlled and monitored by our centralized remote monitoring service, and we rely on our internal computer networks for many of the systems we use to operate our business generally. From time to time, we may face attempts by others to gain unauthorized access through the internet or otherwise or to introduce malicious software to our IT systems. We or our products may be a target of computer hackers, organizations or malicious attackers who attempt to:

- gain access to our network or products or networks of our customers;
- steal proprietary information related to our business, products, employees, and customers; or
- interrupt our systems or those of our customers.

From time to time, we encounter attempts at gaining unauthorized access to our network and we routinely run security checks. While we seek to detect and investigate unauthorized attempts and attacks against our network and products of which we become aware, and to prevent their recurrence where practicable through changes to our internal processes and tools and/or changes to our products, we remain potentially vulnerable to additional known or unknown threats. In addition to intentional security breaches, the integrity and confidentiality of company and customer data and our intellectual property may be compromised as a result of human error, product defects, or technological failures. Different geographic markets may have different regulations regarding data protection, raising potential compliance risks. We utilize third-party contractors to perform certain functions for us, and they face security risks similar to us. Further, retaliatory acts by Russia

in response to Western sanctions could include cyber attacks that could disrupt the economy more generally or that could also impact our operations directly or indirectly.

Any failure or perceived failure by us or our service providers to prevent information security breaches or other incidents or system disruptions, or any compromise of security that results in or is perceived or reported to result in unauthorized access to, or loss, theft, alteration, release or transfer of, our information, or any personal information, confidential information, or other data could result in loss or theft of proprietary or sensitive data and intellectual property, could harm our reputation and competitive position and could expose us to legal claims, regulatory investigations and proceedings, and fines, penalties, and other liability. Any such actual or perceived security breach, incident or system disruption could also divert the efforts of our personnel, and could require us to incur significant costs and operational consequences in connection with investigating, remediating, eliminating and putting in place additional tools, devices, policies, and other measures designed to prevent actual or perceived security breaches and other incidents and system disruptions, and in, for example, rebuilding internal systems, reduced inventory value, providing modifications to our products and services, defending against claims and litigation, responding to regulatory inquiries or actions, paying damages, or taking other remedial steps with respect to third parties. Moreover, we could be required or otherwise find it appropriate to expend significant capital and other resources to respond to, notify third parties of, and otherwise address the incident or breach and its root cause, and to notify individuals, regulatory authorities and others of security breaches involving certain types of data.

Further, we cannot assure that any limitations of liability provisions in our current or future contracts that may be applicable would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim relating to a security breach or other security-related matter. We also cannot be sure that our existing insurance coverage will continue to be available on acceptable terms or will be available in sufficient amounts to cover claims related to a security breach or incident, or that the insurer will not deny coverage as to any future claim. The successful assertion of claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, including our financial condition, operating results, and reputation.

***The failure or breach of our IT systems could affect our sales and operations.***

The availability and effectiveness of our energy storage products and our ability to conduct our business and operations, depend on the continued operation of IT and communications systems, some of which we have yet to develop or otherwise obtain the ability to use. Systems used in our business, as well as systems used by third parties on which we rely, will be vulnerable to damage or interruption caused by power outages, climate change and natural disasters, and other factors beyond our control or which we do not presently anticipate, including technical defects or errors. Such systems could also be subject to break-ins, sabotage and intentional acts of vandalism, as well as disruptions and security incidents as a result of non-technical issues, including intentional or inadvertent acts or omissions by employees, service providers, or others. We expect to face significant challenges with respect to information security and maintaining the security and integrity of our systems and other systems used in our business, as well as with respect to the data stored on or processed by these systems. We also anticipate storing and otherwise processing confidential business information of ourselves and third parties, as well as personal information and other data. Advances in technology, an increased level of sophistication and expertise of hackers, and new discoveries in the field of cryptography can result in a compromise or breach of the systems used in our business or of security measures used in our business to protect confidential information, personal information, and other sensitive data, such as data that is subject to export control regulations and controlled unclassified information that is subject to other federal regulations. We may be a target for attacks by state-sponsored actors and others designed to disrupt our operations or to attempt to gain access to our systems or to data that is processed or maintained in our business.

We use outsourced service providers to help provide certain services. For example, we utilize email and collaboration tools, and other third-party services and service providers that store or otherwise process information, including personal information and confidential business information, on our behalf. Any such outsourced service providers face similar security and system disruption risks as us. We are at risk for interruptions, outages and breaches of our and our outsourced vendors' and service providers' operational systems and security systems, our products' and services' integrated software and technology, and customer data that we or our third-party service providers process. These may be caused by, among other causes, physical theft, viruses or other malicious code, denial or degradation of service attacks, ransomware, social engineering schemes, and insider theft or misuse. While we take steps to review security protections of services provided to us, there can be no guarantee that a failure or breach of such systems will not occur or be perceived to occur. If such failures were to occur, we may not be able to sufficiently recover to avoid the loss of data or any adverse impact on our operations that are dependent on such IT systems. This could result in lost sales as we may not be able to meet the demands for our product, and other harm to our business and results of operations. Further, some of the systems used in our business will not be fully redundant, and our disaster recovery planning cannot account for all eventualities. Any security breaches or incidents or other damage to or disruptions to any data centers or other systems used in our business could result in

lengthy interruptions in our service and may adversely affect our business, prospects, financial condition and operating results.

Furthermore, because our IT systems are essential for the exchange of information both internally and in communicating with third parties, including our suppliers and manufacturers, security breaches or incidents could lead to unauthorized acquisition or unauthorized release of sensitive, confidential or personal data or information, improper use of our systems, or unauthorized access, use, disclosure, modification or destruction of information or defective products. Our IT systems also help us produce financial information. We have not, to date, been materially impacted by a cybersecurity incident or cybersecurity risk. However, any disruption, security breach, or other incident could impact our ability to produce timely and accurate financial information needed for compliance, audit, and reporting purposes. If any such security breaches or incidents were to continue, our operations and ability to communicate both internally and with third parties may be negatively impacted.

Significant capital and other resources may be required in efforts to protect against security breaches, incidents, and system disruptions, or to alleviate problems caused by actual or suspected security breaches and other incidents and system disruptions. The resources required may increase over time as the methods used by hackers and others engaged in online criminal activities and otherwise seeking to obtain unauthorized access to systems or data, and to disrupt systems, are increasingly sophisticated and constantly evolving. In addition, laws, regulations, government guidance, and industry standards and practices in the United States and elsewhere are rapidly evolving to combat these threats. We may face increased compliance burdens regarding such requirements with regulators and customers regarding our products and services and also incur additional costs for oversight and monitoring of our supply chain. We also cannot be certain that these systems, networks, and other infrastructure or technology upon which we rely, including those of our third-party suppliers or service providers, will be effectively implemented, maintained or expanded as planned, or will be free from bugs, defects, errors, vulnerabilities, viruses, or malicious code. We may be required to expend significant resources to make corrections or to remediate issues that are identified or to find alternative sources. Any of these circumstances potentially could have a negative impact on our business, prospects, financial condition and operating results.

***We may not be able to identify or complete transactions with attractive acquisition candidates. Future acquisitions may result in significant transaction expenses and we may incur significant costs.***

We may from time to time selectively pursue on an opportunistic basis acquisitions of additional businesses that complement our existing business and footprint. The success of any such growth strategy would depend, in part, on selecting strategic acquisition candidates at attractive prices and effectively integrating their businesses into our own, including with respect to financial reporting and regulatory matters. There can be no assurance that we will be able to identify attractive acquisition candidates or complete the acquisition of any identified candidates at favorable prices and upon advantageous terms and conditions, including financing alternatives. In addition, general economic conditions or unfavorable capital and credit markets could affect the timing and extent to which we can successfully acquire new businesses, which could limit our revenues and profitability.

***Our facilities or operations could be damaged or adversely affected as a result of natural disasters and other catastrophic events.***

Our facilities or operations could be adversely affected by events outside of our control, such as natural disasters, wars, health epidemics and other calamities. We cannot assure you that any backup systems will be adequate to protect our facilities or operations from the effects of fire, floods, typhoons, earthquakes, power loss, telecommunications failures, break-ins, war, riots, terrorist attacks or similar events. Any of the foregoing events may give rise to interruptions, breakdowns, system failures, technology platform failures or internet failures, which could cause the loss or corruption of data or malfunctions of software or hardware as well as adversely affect our ability to provide services.

***We may not have sufficient insurance coverage to cover business continuity.***

A sustained or repeated interruption in the manufacturing of our products due to labor shortage, fire, flood, war, pandemic, natural disasters, regulatory requirements, and similar unforeseen events beyond our control may interfere with our ability to manufacture our products and fulfil customers' demands in a timely manner, and make it difficult, or in certain cases, impossible for us to continue our business for a substantial period of time. Failure to manufacture our products and meet customer demands would impair our ability to generate revenues which would adversely affect our financial results. We currently do not have a formal disaster recovery or business continuity plan in place and any disaster recovery and business continuity plans that we may put in place may prove inadequate in the event of a serious disaster or similar event. As part of our risk management, we maintain insurance coverage for our business. However, we cannot assure you that the amount of insurance will be sufficient to satisfy any damages or losses we may incur. If our insurance coverage is not sufficient, we may incur substantial expenses, which could have a material adverse effect on our business.



***Changes in the global trade environment, including the imposition or escalation of import tariffs, could adversely affect the amount or timing of our revenues, results of operations or cash flows.***

While our current supply chain is largely domestic, it includes Chinese sources for various parts. Escalating trade tensions, particularly between the United States and China have led to increased tariffs and trade restrictions, including tariffs applicable to certain electronic materials and components of our products. This includes the 7.5% - 100% tariffs that the U.S. Trade Representative has imposed on certain imports from China since 2018 as well as the additional 10% tariff on most Chinese-origin goods implemented by the U.S. government in February 2025. Further, the Trump administration has strongly voiced an intention to place additional tariffs on China and other countries. In particular, significant new tariffs of 25% on imports from Canada and Mexico announced in February 2025, which have been temporarily suspended for 30 days pending further negotiations between the U.S. and these countries, may also be implemented; an escalation in tariffs to 25% on aluminum and steel imports into the U.S. is set to take effect in March 2025; and additional tariff actions are expected.

Tariffs and the possibility of additional tariffs in the future have created uncertainty, particularly if we are not able to second source parts from alternative vendors. There can be no guaranty that these developments will not negatively impact the price of the positive electrode used in our products. Additionally, existing, future, or potential tariffs may negatively affect key customers and suppliers, and other supply chain partners. Such outcomes could adversely affect the amount or timing of our revenues, results of operations or cash flows, and cause sales volatility, price fluctuations or supply shortages or cause our customers to advance or delay their purchase of our products.

We are in the process of qualifying alternative sources but anticipate it will take time before alternate sources are qualified for every component. Depending on the outcome of the tariffs that the Trump administration has implemented and may eventually implement on additional products and/or countries, our ability to secure alternative sources of components may be further limited in the future. In addition, such sources may charge a higher cost than our current suppliers, which would negatively impact our results of operations. There is no guaranty that we will be able to identify alternate suppliers that meet our quality, volume and price requirements. Failure to meet these requirements could result in supply disruptions and increased costs. It is difficult to predict what further trade-related actions governments may take, which may include additional or increased tariffs and trade restrictions, and we may be unable to react to such actions quickly and effectively, which could result in supply shortages and increased costs.

***We could be subject to foreign exchange risk.***

Our international sales are typically denominated in U.S. dollars. As a result, we will not have significant direct exposure to currency valuation exchange rate fluctuations. However, because our products are sold internationally, our products may be at a price disadvantage as compared with other non-U.S. suppliers if the U.S. dollar appreciates relative to other major foreign currencies. This could lead to our having to lower prices or our struggling to compete for international customers. Consequently, currency fluctuations, in particular, a strengthening of the U.S. dollar, could adversely affect the competitiveness of our products in international markets.

***We may be required to take write-downs or write-offs, restructuring and impairment or other charges that could have a significant negative effect on our financial condition, results of operations and stock price, which could cause you to lose some or all of your investment.***

Unexpected risks may arise that cause us to write-down or write-off assets, restructure our operations, or incur impairment or other charges that could result in losses. Even though these charges may be non-cash items and not have an immediate impact on our liquidity, the fact that we report charges of this nature could contribute to negative market perceptions about us or our securities. In addition, charges of this nature may cause us to violate net worth or other covenants to which we may be subject. Accordingly, our stockholders could suffer a reduction in the value of their shares.

***Our results of operations could vary as a result of changes to our accounting policies or the methods, estimates and judgments we use in applying our accounting policies.***

The estimates and judgments we use in applying our accounting policies have a significant impact on our results of operations. Such methods, estimates and judgments are, by their nature, subject to substantial risks, uncertainties and assumptions, and factors may arise over time that could lead us to reevaluate our methods, estimates and judgments.

Management regularly evaluates its estimates such as for service agreements, loss accruals, warranty, performance guarantees, liquidated damages and inventory valuation allowances. Changes in those estimates and judgments could significantly affect our financial condition and results of operations. We will also adopt changes required by the Financial Accounting Standards Board and the SEC.

***The requirements of being a public company may strain our resources and divert management's attention.***

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as well as rules adopted, and to be adopted, by the SEC and the NYSE. Compliance with such public company requirements is costly, time-consuming and complex. We expect management and other personnel to continue to devote a substantial amount of time and resources to these compliance initiatives. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements as they continue to evolve over time. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors or as executive officers.

In addition, we may not have adequate personnel with the appropriate level of knowledge, experience and training in the accounting policies, practices or internal controls over financial reporting required of public companies in the United States. The development and implementation of the standards and controls necessary for us to achieve the level of accounting standards required of a public company in the United States may require costs greater than expected. It is possible that we will be required to further expand our employee base and hire additional employees to support our operations as a public company, which will increase our operating costs in future periods.

Moreover, our efforts to comply with new and changing laws and regulations related to public disclosure and corporate governance have resulted in increased general and administrative expenses and a diversion of management time and attention. Because these laws, regulations and standards are subject to varying interpretations, their application in practice may evolve over time as new guidance becomes available. This evolution may result in continuing uncertainty regarding compliance matters and additional costs necessitated by ongoing revisions to our disclosure and governance practices. If we fail to address and comply with these regulations and any subsequent changes, we may be subject to penalties and our business may be harmed.

***We may engage in transactions with related parties and such transactions present possible conflicts of interest that could have an adverse effect on us.***

We may enter into further transactions with related parties. Related-party transactions create the possibility of conflicts of interest with regard to management, including that:

- we may enter into contracts between us, on the one hand, and related parties, on the other, that are not as a result of arm's-length transactions;
- our executive officers and directors that hold positions of responsibility with related parties may be aware of certain business opportunities that are appropriate for presentation to us as well as to such other related parties and may present such business opportunities to such other parties; and
- our executive officers and directors that hold positions of responsibility with related parties may have significant duties with, and spend significant time serving, other entities and may have conflicts of interest in allocating time.

Such conflicts could cause such executive officer or director to seek to advance his or her economic interests or the economic interests of certain related parties above ours. Further, the appearance of conflicts of interest created by related-party transactions could impair the confidence of our investors. Our audit committee and our board of directors regularly review these transactions. Notwithstanding this, it is possible that a conflict of interest could have a material adverse effect on our business, financial condition and results of operations.

***Our relationships with related parties, SBE, an affiliate of SoftBank Group Corp., and Honeywell, are subject to various risks which could adversely affect our business and future prospects. There are no assurances that we will be able to commercialize iron flow batteries from our joint development relationship with such parties. In addition, neither SBE nor Honeywell has any obligation to order any energy storage products from us under the agreements with such business partners, including at any price point.***

In April 2021, we signed a framework agreement with SBE to supply our energy storage products to SBE in support of its market activities. Under this agreement, we have made various commitments to meet SBE's potential need for our energy storage products and are obligated to reserve a certain percentage of our manufacturing capacity to meet SBE's future needs, subject to periodic reviews of its firm and anticipated orders, which may negate those capacity reservations if no firm demand is realized. However, SBE is under no obligation to place any firm orders with us at any price point, and any future orders may be subject to future pricing or other commercial or technical negotiations, which we may not be able to satisfy, resulting in a diminished potential value of this relationship to us. To date, no orders have been placed under the framework agreement.

On September 21, 2023, we signed a Supply Agreement with UOP LLC ("UOP"), an affiliate of Honeywell International Inc. ("Honeywell"), pursuant to which UOP may purchase equipment supplied by us, and we agreed to issue additional

warrants to purchase common stock to UOP, consisting of (i) an initial Performance Warrant to issue up to 51,717 shares of common stock, issued on September 21, 2023 in exchange for a prepayment of equipment by UOP in the amount of \$15 million, and (ii) additional Performance Warrants (not to exceed an aggregate value of \$15 million based on target purchase amounts of up to \$300 million by 2030) to be issued on an annual basis for the five-year period beginning in 2026, based on UOP's purchase of additional equipment after execution of the Supply Agreement. On September 21, 2023, we and UOP also entered into a Joint Development Agreement, pursuant to which we and UOP have agreed to work together to collaborate and engage in certain research and development activities generally related to flow battery technology, and a Patent License Agreement, pursuant to which UOP will license certain patent rights to us. However, Honeywell is under no obligation to place any additional firm orders with us at any price point, and any future orders may be subject to future pricing or other commercial or technical negotiations, which we may not be able to satisfy, resulting in a diminished potential value of this relationship to us. In addition, while activities under the Joint Development Agreement have commenced, we and Honeywell may not be able to agree on future activities and endeavors to pursue under the Joint Development Agreement, activities under the Joint Development Agreement may not be successful, or the Patent License Agreement may have limited value to us.

SBE, Honeywell, and any other business partners in the future, may have economic, business or legal interests or goals that are inconsistent with our goals. Any disagreements with our current or other future business partners may impede our ability to maximize the benefits of these partnerships and slow the commercialization of our iron-flow batteries. Future commercial or strategic counterparties may require us, among other things, to pay certain costs or to make certain capital investments or to seek their consent to take certain actions. In addition, if our business partners are unable or unwilling to meet sourcing, development, or other obligations under our partnership arrangements, we may be required to fulfill those obligations alone. These factors could result in a material adverse effect on our business and financial results.

***The execution of our strategy to expand into new markets through strategic partnerships, joint ventures and licensing arrangements is in a very early stage and is also subject to various risks which could adversely affect our business and future prospects.***

We may enter into strategic partnerships, joint ventures and licensing arrangements to expand our business and enter into new markets. However, there is no assurance that we will be able to consummate any such arrangements as contemplated to commercialize our energy storage products. There is also no assurance that we will be able to realize the benefits of any such arrangements even if we do enter into such strategic partnerships, joint ventures and licensing arrangements and there is always a risk that either party may be unable to comply with its delivery, payment, or other obligations under any such arrangement. The occurrence of any such risks may result in diminished potential value of these types of relationships to us. For example, in 2022 we entered into a strategic partnership with Energy Storage Industries Asia Pacific ("ESI") and a framework agreement with Sacramento Municipal Utility District ("SMUD"). Under the terms of our agreement with ESI, we commenced delivery of Energy Warehouse systems to ESI in 2022, continuing through 2023 and 2024, and expect to continue deliveries in 2025 to fulfill their orders. ESI is expected to construct a manufacturing facility in Queensland, Australia, equipped to conduct final assembly of our systems from 2025 onward; however, ESI may be delayed or unable to complete construction of the manufacturing facility or may cancel or decline to place future orders of our product, whether due to funding constraints or other reasons, which may require ESS to find alternative arrangements to addressing the market, such as supplying products directly or identifying alternative in-country facilities. We made the first delivery of our systems to SMUD during the second quarter of 2023, but the task authorization supporting the Energy Warehouse pilot and the next phase order of our Energy Center expired on December 31, 2024, and while we are in discussions for future task authorizations, SMUD is under no obligation to continue the task authorization or place additional orders with us.

Any future strategic partnerships, joint ventures or licensing arrangements may require us, among other things, to pay certain costs, make certain capital investments or to seek the partner's consent to take certain actions. In addition, if a partner is unable or unwilling to meet its economic or other obligations under the respective arrangements, we may be required to either fulfill those obligations alone to ensure the ongoing success of, or to dissolve and liquidate, the partnership, joint venture or licensing arrangement. These factors could result in a material adverse effect on our business, prospects and financial results.

***Our review of commercial and strategic transactions may be disruptive to our business and may not be successful.***

On February 13, 2025, we publicly announced that our board of directors has engaged financial advisors to investigate and pursue commercial or financial transactions, which could include, among other things, divestitures, a merger or sale, joint ventures, partnerships and financings. Exploring commercial and financial transactions may create a significant distraction for our management team and board of directors and require us to expend significant time and resources and incur expenses for advisors. Moreover, the review and consideration of such commercial and financial transactions may disrupt our business by causing uncertainty among current and potential employees, suppliers, customers and investors. The selection

and execution of a commercial or financial transaction may lead to similar disruptions, and parties advocating for alternatives not selected may solicit support for such other alternatives, causing further disruption.

Despite our plan to devote significant efforts to identify and evaluate potential commercial and financial transactions, the process may not result in any definitive offer to consummate such a transaction, or, if we receive such a definitive offer, the terms may not be as favorable as anticipated or may not result in the execution or approval of a definitive agreement. Even if we enter into a definitive agreement, we may not be successful in completing a transaction or, if we complete such a transaction, it may not enhance stockholder value or deliver expected benefits.

***If we do not successfully identify a viable commercial or financial transaction, or consummate such a transaction, or if we are unable to raise sufficient capital to fund our operations, our board of directors may determine that a liquidation of our assets, wind-down, or dissolution of our business is the best method to seek to maximize value.***

If we do not successfully identify a viable commercial or financial transaction, or consummate such a transaction, or if we are unable to raise sufficient capital to fund our operations, our board of directors may determine that the liquidation of our assets, wind-down, or dissolution of our business is the best method to seek to maximize value. In such an event, the amount of cash available for distribution to our stockholders, if any, would depend on many factors, including the costs and timing of such liquidation, the market for the Company's assets, the Company's cash balance, the amount of cash that would need to be reserved for commitments and contingent liabilities, and the amount and relative priority of the Company's liabilities.

Accordingly, holders of our shares and warrants could lose all or a significant portion of their investment in the event of a liquidation of the Company's assets, wind-down, or dissolution of its business.

#### **Risks Related to Regulatory, Environmental and Legal Issues**

***We may face regulatory challenges to or limitations on our ability to sell our products directly in certain markets. Expanding operations internationally could expose us to additional risks.***

While we intend to continue to sell our products across the United States both directly and through third parties, our ability to continue such sales may be affected by future limitations, either directly to the ability to sell energy storage or by broader regulation related to the sales and operation of distributed energy resources, which could have an impact on our ability to sell our products to the market.

Although we currently primarily operate in the United States, we continue to expand our business internationally. Any expansion internationally could subject our business to risks associated with international operations, including legal and regulatory requirements, political uncertainty and social, environmental and economic conditions in numerous jurisdictions, over which we have little control and which are inherently unpredictable. Our operations in such jurisdictions, particularly as a company based in the United States, create risks relating to conforming our products to regulatory and safety requirements and charging and other electric infrastructures; organizing local operating entities; establishing, staffing and managing foreign business locations; attracting local customers; navigating foreign government taxes, regulations and permit requirements; enforceability of our contractual rights; trade restrictions, export controls, foreign direct investment review regimes, customs regulations, tariffs and price or exchange controls; and preferences in foreign nations for domestically manufactured products. Such conditions may increase our costs and tax liabilities, impact our ability to sell and service our products and require significant management attention, and may harm our business if we are unable to manage them effectively.

In addition, there may be laws in international jurisdictions we have not yet entered, laws we are unaware of in jurisdictions we have entered, or changes to laws in jurisdictions we have entered that may affect or restrict our sales or other business practices. Even for those jurisdictions we have analyzed, the laws in this area can be complex, difficult to interpret and may change over time. Continued regulatory limitations and other obstacles interfering with our ability to sell our energy storage products may harm our business, financial condition and results of operations. Additionally, any regulation that affects the sale or operations of distributed energy resources could diminish the real or perceived value of our energy storage solutions in those markets. As a result of these risks, any potential future international expansion efforts that we may undertake may not be successful.

***Our customers may be required to obtain environmental, health and safety or other certifications in order to install our products. If our customers are unable to obtain the necessary certifications, we will not be able to install our products, which would negatively impact our revenues.***

While our engineering team has worked closely with the CSA Group, Intertek, UL and Technischer Überwachungsverein certification agencies to obtain certifications of our flow battery products under all applicable safety standards, there is no guarantee that such certifications will continue to be obtained. From our prior certifications, we have expanded our flow



battery product certification to the European Conformity marking in the European Union and intend to expand to other international standards such as the International Electrotechnical Commission (“IEC”). Failure to comply with IEC standards may have impact on our revenues, as compliance is required by some of our customers.

***We are subject to multiple U.S. federal, state, local and other applicable regulations. Changes in applicable law, regulations or requirements, or our material failure to comply with any of them, can increase our costs and have other negative impacts on our business.***

Applicable laws and requirements address multiple aspects of our operations, such as worker safety, consumer rights, privacy, cybersecurity, employee benefits and more, and can often have different requirements in different jurisdictions. Changes in these requirements, or any material failure to comply with them, could increase our costs, affect our reputation, result in claims, litigation, and regulatory investigations or other proceedings, which may result in fines, penalties, and other liabilities, and which may limit our business, drain management’s time and attention or otherwise, and generally impact our operations in adverse ways.

***We are subject to requirements relating to environmental and safety regulations and environmental remediation matters which could adversely affect our business, results of operation and reputation.***

We are subject to numerous federal, state and local environmental laws and regulations governing, among other things, solid and hazardous waste storage, treatment and disposal, and remediation of releases of hazardous materials. There are significant capital, operating and other costs associated with compliance with these environmental laws and regulations. Environmental laws and regulations may become more stringent in the future, which could increase costs of compliance or require us to manufacture with alternative technologies and materials.

Federal, state and local authorities also regulate a variety of matters, including, but not limited to, health, safety and permitting in addition to the environmental matters discussed above. New legislation and regulations may require us to make material changes to our operations, resulting in significant increases to the cost of production.

Our manufacturing process involves hazards such as but not limited to hazardous materials, machines with moving parts, and high voltage and/or high current electrical systems typical of large manufacturing equipment and related safety incidents.

We have had, and in the future may have further, environmental or safety incidents that damage machinery or product, slow or stop production or field operations, harm employees or result in leakage of electrolyte. Consequences may include litigation, regulation, fines, increased insurance premiums, decisions or mandates to temporarily halt production or field operations, workers’ compensation claims, expenses related to site remediation or other actions that impact our brand and reputation, customer’s willingness to place future orders, our operating results and financial condition, our ability to operate, and our future prospects.

***We may be exposed to delays, limitations and risks related to the environmental permits and other operating permits required to operate our products.***

Operation of our manufacturing facilities requires land use and environmental permits and other operating permits from federal, state and local government entities. New permits may be required to carry out and perform our current plans and operations at our existing facility, and we may require additional environmental, wastewater and land use permits for the commercial operation of any future manufacturing facilities. Delays, denials or restrictions on any of the applications for or assignment of the permits to operate our manufacturing facilities could adversely affect our ability to execute on our business plans and objectives.

***We may collect and process certain information about our customers and about individuals and will be subject to various laws and regulations relating to privacy, data protection and cybersecurity.***

We may collect and process certain battery data required for performance monitoring, safety and serviceability. This information is transmitted to our control center and stored. Such data currently is limited to battery operational and safety parameters. Additionally, we collect and otherwise process other data relating to individuals, including business partners, prospects, employees, vendors, and contractors. Our handling of data relating to individuals is subject to a variety of laws and regulations relating to privacy, data protection and cybersecurity, and we may become subject to additional obligations, including contractual obligations, relating to our maintenance and other processing of this data, and new or modified laws or regulations, such as regulations pertaining to controlled unclassified information or data that is subject to export control laws. Laws, regulations, and other actual and potential obligations relating to privacy, data protection, and cybersecurity are evolving rapidly, and we expect to potentially be subject to new laws and regulations, or new interpretations of laws and regulations, in the future in various jurisdictions. These laws, regulations, and other obligations, and changes in their interpretation, could require us to modify our operations and practices, restrict our activities, and increase our costs. Further, these laws, regulations, and other obligations are complex and compliance with them can be difficult. It is possible



that these laws, regulations, and other obligations may be inconsistent with one another or be interpreted or asserted to be inconsistent with our business or practices. We anticipate needing to dedicate substantial resources in order to comply with laws, regulations, and other obligations relating to privacy and cybersecurity. Any actual or alleged failure by us to comply with our privacy policy or any federal, state or international privacy, data protection or cybersecurity laws or regulations or other obligations could result in claims and litigation against us, regulatory investigations and other proceedings, legal liability, fines, damages and other costs. Any actual or alleged failure by any of our vendors or business partners to comply with contractual or legal obligations regarding the protection of information about our customers could carry similar consequences. Should we become subject to additional laws, regulations, or other obligations relating to privacy, data protection or cybersecurity, we may need to undertake compliance efforts that could carry a large cost and could entail substantial time and other resources.

Further, although we take steps to protect the security of our customers' personal information and other personal information within our control, we may face actual or perceived security breaches, incidents, or other misuses of this information, and many jurisdictions have enacted laws requiring companies to notify individuals, regulatory authorities and others of security breaches involving certain types of data. We may be required to expend significant resources to comply with security breach and incident notification requirements if a third party accesses or acquires such personal information without authorization, if we otherwise experience a security breach or incident or loss or damage of personal information, or if this is perceived to have occurred. Any actual or perceived breach of our network or systems, or those of our vendors or service providers, could result in claims, litigation, and proceedings against us by governmental entities or others, have negative effects on our business and future prospects, including possible fines, penalties and damages, or loss of eligibility for government grants and contracts, and could result in reduced demand for our energy storage products and harm to our reputation and brand, resulting in negative impacts to our business, prospects, and financial results.

***We could be subject to penalties and other adverse consequences for any violations of the FCPA, and other foreign anti-bribery and anti-corruption laws.***

We are subject to the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the United Kingdom Bribery Act 2010, and possibly other anti-bribery and anti-corruption laws in countries outside of the United States in which we conduct our activities. We may have business dealings with customers in certain countries that are high risk for corruption. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly to generally prohibit companies and their employees, agents, representatives, business partners, and third-party intermediaries from authorizing, offering, or providing, directly or indirectly, improper payments or benefits to recipients in the public or private sector.

We sometimes leverage third parties to sell our products and conduct our business abroad. We, our employees, agents, representatives, business partners or third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities and may be held liable for the corrupt or other illegal activities of these employees, agents, representatives, business partners or third-party intermediaries even if we do not explicitly authorize such activities. We cannot assure you that all of our employees and agents will not take actions in violation of applicable law, for which we may be ultimately held responsible. We currently have contracts and may potentially operate in parts of the world that have experienced higher levels of governmental corruption and as we increase our international sales and business, our risks under these laws may increase. In addition, due to the level of regulation in our industry and related energy industries, our entry into certain jurisdictions may require substantial government contact where norms can differ from U.S. standards.

These laws also require that we keep accurate books and records and maintain internal controls and compliance procedures designed to prevent any such actions. While we have policies and procedures to address and to mandate compliance with such laws, we cannot assure you that none of our employees, agents, representatives, business partners or third-party intermediaries will take actions in violation of our policies and applicable law, for which we may be ultimately held responsible.

In the event that we believe, have reason to believe, or are notified that our employees, agents, representatives, business partners, or third-party intermediaries have or may have violated applicable laws, including anti-bribery and anti-corruption laws, we may be required to investigate or have outside counsel investigate the relevant facts and circumstances, and detecting, investigating and resolving actual or alleged violations can be expensive and require significant time and attention from senior management. Any allegation or violation of U.S. federal and state and non-U.S. laws, regulations and policies regarding anti-bribery and anti-corruption could result in substantial fines, sanctions, civil and/or criminal penalties, whistleblower complaints, sanctions, settlements, prosecution, enforcement actions, damages, adverse media coverage, investigations, loss of export privileges, suspension or debarment from government contracts, or other curtailment of operations in the United States or other applicable jurisdictions. In addition, actual or alleged violations

could damage our reputation and ability to do business. Any of the foregoing could materially adversely affect our reputation, business, financial condition, prospects and results of operations.

***We are subject to governmental export and import controls and economic sanctions programs that could impair our ability to compete in international markets or subject us to liability if we violate these controls.***

Our products and services are, or may in the future be, subject to U.S. export control laws and regulations including the Export Administration Regulations (“EAR”) and trade and economic sanctions maintained by the Office of Foreign Assets Control (“OFAC”) and to similar laws and regulations in all other jurisdictions in which we operate. As such, an export license may be required to export, re-export or transfer our products and services to certain countries or end-users or for certain end-uses. If we were to fail to comply with such export control laws and regulations or trade and economic sanctions, we could be subject to both civil and criminal penalties, including substantial fines, possible incarceration for employees and managers for willful violations, and the possible loss of our export and/or import privileges. Compliance with the EAR, OFAC sanctions, and other applicable regulatory requirements regarding the import and export of our products or the performance of services, may create delays in the introduction of our products and services in non-U.S. markets, prevent our customers with non-U.S. operations from deploying these products and services throughout their global systems or, in some cases, prevent the export of the products and services to some countries or users altogether. We may enter into agreements with customers and counterparties located in countries subject to list-based OFAC sanctions.

Obtaining the necessary export license for a particular sale or offering may not be possible, may be time-consuming, and may result in the delay or loss of sales opportunities. Further, U.S. export control laws and trade and economic sanctions as well as similar laws and regulations in other jurisdictions prohibit the export of products and services to certain U.S. embargoed or sanctioned countries, governments, and persons, as well as for prohibited end-uses. Even though we have taken precautions to ensure that we and our partners comply with all relevant import and export control laws and regulations and sanctions, monitoring and ensuring compliance with these complex laws and regulations is particularly challenging, and any failure by us or our partners to comply with such laws and regulations could have negative consequences for us, including reputational harm, government investigations and penalties.

Any change in domestic or international export or import laws or regulations, economic sanctions, or related legislation, shift in the enforcement or scope of existing export, import, or sanctions laws or regulations, or change in the countries, governments, persons, or technologies targeted by such export, import, or sanctions laws or regulations, could result in decreased use of our products and/or services by, or in our decreased ability to export or sell our products and/or services to, end-customers with international operations.

***We may be exposed to various risks related to legal proceedings or claims that could adversely affect our operating results. The nature of our business exposes us to various liability claims, which may exceed the level of our insurance coverage resulting in our not being fully protected.***

We have been and may continue to be party to lawsuits in the normal course of our business. Litigation can be expensive, lengthy and disruptive to normal business operations even if the grounds are meritless. Moreover, the results of complex legal proceedings are difficult to predict. Responding to lawsuits brought against us, or legal actions that we may initiate, can be expensive and time-consuming. Unfavorable outcomes from these claims and/or lawsuits could adversely affect our business, financial condition or results of operations, and we could incur substantial monetary liability and/or be required to change our business practices.

Our business may expose us to claims for personal injury, death or property damage resulting from the use of our products or from employee related matters. Additionally, we could be subject to potential litigation associated with compliance with various laws and governmental regulations at the federal, state or local levels, such as those relating to the protection of persons with disabilities, employment, health, safety, security and other regulations under which we operate.

We carry comprehensive insurance, subject to deductibles, at levels we believe are sufficient to cover existing and future claims made during the respective policy periods. However, we may be exposed to multiple claims, and, as a result, could incur significant out-of-pocket costs before reaching the deductible amount, which could adversely affect our financial condition and results of operations. In addition, the cost of such insurance policies may increase significantly upon renewal of those policies as a result of general rate increases for the type of insurance we carry as well as our historical experience and experience in our industry. Although we have not experienced any material losses that were not covered by insurance, our existing or future claims may exceed the coverage level of our insurance, and such insurance may not continue to be available on economically reasonable terms, or at all. If we are required to pay significantly higher premiums for insurance, are not able to maintain insurance coverage at affordable rates or must pay amounts in excess of claims covered by our insurance, then we could experience higher costs that could adversely affect our financial condition and results of operations.

***We are subject to certain restrictions and obligations on our business as a result of grants and/or loans received under certain governmental programs and we may be subject to similar or other restrictions to the extent we utilize governmental grants in the future.***

Some of our research has been funded by grants from U.S. government agencies. In conjunction with the Advanced Research Projects Agency-Energy grant we received from the Department of Energy, we granted to the United States a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States inventions related to iron flow technology made within the scope of the grant. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents and technical data, generally including, at a minimum, a nonexclusive license authorizing the government to use the invention or technical data for noncommercial purposes. U.S. government funding must be disclosed in any resulting patent applications, and our rights in such inventions will normally be subject to government license rights, periodic progress reporting, foreign manufacturing restrictions and march-in rights. Therefore, if we failed to disclose to the Department of Energy an invention made with grant funds that we disclosed to patent counsel or for publication, or if we elect not to retain title to the invention, the United States may request that title to the subject invention be transferred to it.

March-in rights refer to the right of the U.S. government, under certain limited circumstances, to require us to grant a license to technology developed under a government grant to a responsible applicant or, if we refuse, to grant such a license itself. March-in rights can be triggered if the government determines that we have failed to work sufficiently towards achieving practical application of a technology or if action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give preference to U.S. industry. If we breach the terms of our grants, the government may gain rights to the intellectual property developed in our related research. The government's rights in our intellectual property may lessen its commercial value, which could adversely affect our performance.

To the extent we utilize governmental grants in the future, the governmental entities involved may retain certain rights in technology that we develop using such grant money. These rights could restrict our ability to fully capitalize upon the value of this research by reducing total revenues that might otherwise be available since such governmental rights may give the government the right to practice the invention without payment of royalties if we do not comply with applicable requirements. Such grants and other forms of government incentives may also subject us to additional disclosure or reporting requirements.

***The reduction, elimination or expiration of government tax credits, subsidies and economic incentives related to renewable energy solutions could reduce demand for our technology and harm our business.***

The U.S. federal government and some state and local governments provide incentives to end users and potential purchasers of our energy storage products in the form of rebates, tax credits and other financial incentives, such as system performance payments and payments for renewable energy credits associated with renewable energy generation. We will rely on these governmental rebates, tax credits and other financial incentives to significantly lower the effective price of the energy storage products to our customers in the United States. However, these incentives may expire on a particular date, end when the allocated funding is exhausted, or be reduced or terminated as a matter of regulatory or legislative policy.

Our energy storage products have qualified for tax exemptions, incentives or other customer incentives in many states including California. Some states have utility procurement programs and/or renewable portfolio standards for which our technology is eligible. There is no guarantee that these policies will continue to exist in their current form, or at all. Such state programs may face increased opposition on the U.S. federal, state and local levels in the future. Changes in federal or state programs could reduce demand for our energy storage products, impair sales financing and adversely impact our business results.

On August 16, 2022, President Biden signed into law the Inflation Reduction Act of 2022 (the "IRA"), which extends the availability of investment tax credits ("ITCs") and production tax credits ("PTCs") and makes significant changes to the tax credit regime that applies to solar and energy storage projects. As a result of changes made by the IRA, the ITC for solar generation projects is extended until at least 2033, and has been expanded to include stand-alone battery storage projects. This expansion provides more certainty on the tax incentives that will be available to stand-alone battery storage projects in the future. We believe the IRA will increase demand for our products and services due to the extensions and expansions of various tax credits that are critical for our customers' economic returns, while also providing more certainty in and visibility into the supply chain for materials and components for energy storage systems. To date, guidance has been released by the IRS and the U.S. Treasury Department ("Treasury") to implement many of the IRA's provisions, including with respect to battery storage projects and domestic content requirements, however there continues to be uncertainty with respect to certain aspects of the IRA, which could cause our customers to delay projects pending further guidance and which could reduce demand for our technology and harm our business. For example, the IRS issued Notice 2023-38 in May 2023 setting forth guidance on the domestic content bonus tax credits under the IRA, which introduced uncertainties that have yet to be fully resolved. In May 2024, the IRS issued Notice 2024-41 setting forth further guidance on the

domestic content bonus tax credits, including a safe harbor method for calculating domestic content percentages. And in January 2025, the IRS issued Notice 2025-08, which provides an updated safe harbor method for calculating domestic content percentages. Notice 2024-41, Notice 2025-08 and the elective safe harbor described therein clarified some pre-existing uncertainty in the industry from Notice 2023-38, but they also introduced further uncertainties on some issues. These uncertainties have and could continue to cause our customers to delay projects as they navigate the existing guidance in qualifying for tax credits and possibly wait for further clarity. If we are unable to provide battery storage products that meet the domestic content requirements while our competitors are able to do so, we might experience a decline in sales of our products, which could adversely impact our results of operations and harm our business. Further, although these provisions generally subsidize battery storage both in front of and behind the meter, they may benefit other companies in unexpected ways and thus weaken our competitive position. For example, the IRA may enable companies producing shorter duration lithium-ion batteries to compete with us through added volume of cells at lower cost.

The full impact of the IRA and its accompanying guidance on our operations cannot be known with certainty. We are continuing to evaluate the potential overall impact and applicability of the IRA on our business and operations. To the extent that any impacts from the IRA are less beneficial than anticipated or have a negative impact on us or our business or on our customers' businesses, these changes may materially and adversely impact our business, financial condition, and results of operations. There is additional uncertainty on the future of certain of these incentives under the IRA as a result of the recent change in U.S. presidential administration. Such uncertainty could in itself adversely impact customer demand and our business and future results of operations.

***Changes in tax laws or in their implementation or interpretation may adversely affect our business and financial condition.***

We are or may become subject to income- and non-income-based taxes in the United States under federal, state and local jurisdictions and in certain foreign jurisdictions in which we operate. Tax laws, regulations and administrative practices in these jurisdictions may be subject to significant change, with or without advance notice. For example, beginning in January 2022, the Tax Cuts and Jobs Act of 2017 eliminated the right to deduct research and development expenditures for tax purposes in the period such expenses were incurred and instead requires all U.S. and foreign research and development expenditures to be amortized over five and fifteen tax years, respectively, and as a result, we have recognized a deferred tax asset for the future tax benefit of the amortization deductions of these capitalized research and development expenditures.

Also, the IRA introduced a new non-deductible excise tax of 1% on certain share repurchases by corporations. This 1% excise tax will generally apply to any repurchase of stock (including transactions deemed to be repurchases for U.S. income tax purposes) we undertake, which will generally increase the costs to us of any share repurchases.

Changes in tax laws, as well as other factors, could cause us to experience fluctuations in our tax obligations and effective tax rates and otherwise adversely affect our tax positions and/or our tax liabilities. Such changes may adversely affect our effective tax rates, cash flows and general business condition.

***Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.***

As of December 31, 2024, we had U.S. federal and state net operating loss carryforwards of \$235.6 million and \$235.5 million, respectively. U.S. federal net operating loss carryforwards ("NOLs") generated in taxable years beginning after December 31, 2017 do not expire, but for taxable years beginning after December 31, 2020, the deductibility of such U.S. federal NOLs is limited to 80% of our current year taxable income. Our remaining U.S. federal NOLs will expire beginning in 2032. Our state NOLs may also be subject to certain limitations. It is possible that we will not generate taxable income in time to use our NOLs before their expiration (if applicable) or at all.

Under Sections 382 and 383 of the Internal Revenue Code (the "Code"), if a corporation undergoes an "ownership change" (generally defined as a greater than 50 percentage points change (by value) in the ownership of its equity by certain stockholders over a rolling three-year period), the corporation's ability to use its pre-change NOLs and certain other pre-change tax attributes to offset its post-change income and taxes may be limited. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. We may have experienced such ownership changes in the past, and we may experience ownership changes in the future as a result of shifts in our stock ownership, some of which are outside our control. Accordingly, our ability to utilize our NOLs and certain other tax attributes could be limited by an "ownership change" as described above, which could result in increased tax liability to the Company.

***We are an emerging growth company and a smaller reporting company within the meaning of the Securities Act, and if we take advantage of certain exemptions from disclosure requirements available to "emerging growth companies" or***



***“smaller reporting companies,” this could make our securities less attractive to investors and may make it more difficult to compare our performance with other public companies.***

We will remain an “emerging growth company” within the meaning of the Securities Act, as modified by the Jumpstart Our Business Startups Act (“JOBS Act”), until December 31, 2025, and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies” including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. As a result, our stockholders may not have access to certain information they may deem important. In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the exemption from complying with new or revised accounting standards provided in Section 7(a)(2)(B) of the Securities Act as long as we are an emerging growth company. An emerging growth company can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected not to opt out of such extended transition period and, therefore, we may not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. This may make comparison of our financial statements with another public company which is neither an emerging growth company nor an emerging growth company which has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used. We cannot predict whether investors will find our securities less attractive because we expect to rely on these exemptions. If some investors find our common stock less attractive as a result of our reliance on these exemptions, the trading price of our common stock may be lower than it otherwise would be, there may be a less active trading market for our common stock and the trading price of our common stock may be more volatile.

Additionally, we are currently a “smaller reporting company” as defined in Item 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. We will remain a smaller reporting company only until the last day of the fiscal year in which (i) the market value of the common stock held by non-affiliates exceeds \$250,000,000 as of the prior June 30, or (ii) our annual revenues exceeded \$100,000,000 during such completed fiscal year and the market value of the common stock held by non-affiliates exceeds \$700,000,000 as of the prior June 30. To the extent we take advantage of such reduced disclosure obligations, it may also make comparison of our financial statements with other public companies difficult or impossible.

### **Risks Related to Our Intellectual Property**

***If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, then our business and results of operations could be materially harmed.***

Our success depends to a significant degree on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret, and unfair competition laws, as well as confidentiality and other contractual provisions with our customers, suppliers, employees, and others, to establish and protect our intellectual property and other proprietary rights. Our ability to enforce these rights is subject to general litigation risks, as well as uncertainty as to the enforceability of our intellectual property rights in various countries. When we seek to enforce our rights, we may be subject to claims that our intellectual property rights are invalid or not enforceable. Our assertion of intellectual property rights may result in another party seeking to assert claims against us, which could harm our business. Our inability to enforce intellectual property rights under any of these circumstances would likely harm our competitive position and business.

We have applied for patents in multiple jurisdictions, including the United States, Europe, Australia, Japan and China, and under the Patent Cooperation Treaty, some of which have been issued. We cannot guarantee that any of our pending applications will be approved or that our existing and future intellectual property rights will be maintained or sufficiently broad to protect our proprietary technology, and any failure to obtain such approvals or finding that our intellectual property rights are invalid or unenforceable could force us to, among other things, rebrand or re-design our affected products. In countries where we have not applied for patent protection or where effective intellectual property protection is not available to the same extent as in the United States, we may be at greater risk that our proprietary rights will be misappropriated, infringed, or otherwise violated or may be unprotectable. Government actions may also undermine our intellectual property rights.

Our intellectual property may be stolen or infringed. In the event of such theft or infringement, we may be required to initiate lawsuits to protect our significant investment in our intellectual property. So far, we have been neither the subject of any lawsuits challenging the ownership or validity of our intellectual property, nor have we been required to initiate any lawsuits to protect our intellectual property. However, any such lawsuits may consume management and financial



resources for long periods of time and may not result in outcomes that are favorable or readily enforceable, which may adversely affect our business, financial condition or results of operations.

***Third parties may assert that we are infringing upon their intellectual property rights, which could divert management's attention, cause us to incur significant costs, and prevent us from selling or using the technology to which such rights relate.***

Our competitors and other third parties hold numerous patents related to technology used in our industry. From time to time, we may also be subject to claims of intellectual property right infringement and related litigation, and, if we gain greater recognition in the market, we will face a higher risk of being the subject of claims that we have violated others' intellectual property rights. While we believe that our products and technology do not infringe in any material respect upon any valid intellectual property rights of third parties, we cannot be certain that we would be successful in defending against any such claims. If we do not successfully defend or settle an intellectual property claim, we could be liable for significant monetary damages and could be prohibited from continuing to use certain technology, business methods, content, or brands. To avoid a prohibition, we could seek a license from the applicable third party, which could require us to pay significant royalties, increasing our operating expenses. If a license is not available at all or not available on reasonable terms, then we may be required to develop or license a non-infringing alternative, either of which could require significant effort and expense. If we cannot license or develop a non-infringing alternative, we would be forced to revise, limit or stop sales of our offerings and may be unable to effectively compete and subject to termination and indemnification obligations under our contracts. Any of these results would adversely affect our business, financial condition and results of operations.

***Our patent applications may not result in issued patents or our patent rights may be contested, circumvented, invalidated or limited in scope, any of which could have a material adverse effect on our ability to prevent others from interfering with the commercialization of our products.***

Our patent applications may not result in issued patents, which may have a material adverse effect on our ability to prevent others from commercially exploiting products similar to ours. The status of patents involves complex legal and factual questions and the breadth of claims allowed is uncertain. As a result, we cannot be certain that the patent applications that we file will result in patents being issued, or that our patents and any patents that may be issued to us will afford protection against competitors with similar technology. Numerous patents and pending patent applications owned by others exist in the fields in which we have developed and are developing our technology. In addition, there are numerous academic papers and other publications in our field of technology. As a result, our existing or pending patents may be subject to challenge on the basis of prior art. Furthermore, patent applications filed in foreign countries are subject to laws, rules and procedures that differ from those of the United States, and thus we cannot be certain that foreign patent applications related to issued U.S. patents will be issued.

Even if our patent applications succeed and we are issued patents in accordance with them, we are still uncertain whether these patents will be contested, circumvented, invalidated or limited in scope in the future. The rights granted under any issued patents may not provide us with meaningful protection or competitive advantages, and some foreign countries provide significantly less effective patent enforcement than in the United States. In addition, the claims under any patents that issue from our patent applications may not be broad enough to prevent others from developing technologies that are similar or that achieve results similar to ours. The intellectual property rights of others could also bar us from licensing and exploiting any patents that issue from our pending applications. In addition, patents issued to us may be infringed or designed around by others and others may obtain patents that we need to license or design around, either of which would increase costs and may adversely affect our business, financial condition and results of operations.

***Our products contain third-party open-source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our products or our use of those components give rise to disclosure obligations of proprietary software.***

Our products contain components that are licensed under so-called "open source," "free" or other similar licenses. Open source software is made available to the general public on an "as-is" basis under the terms of a non-negotiable license. Certain open source licenses may give rise to obligations to disclose or license our source code or other intellectual property rights if such open source software is integrated with our proprietary software or used or distributed in certain ways. We currently combine and use our proprietary software with open source software, but not in a manner that we believe requires the release of the source code of our proprietary software to the public. If we combine, use or distribute our proprietary software with open source software in a certain manner in the future, we could be required to release the source code to our proprietary software as open source software, or could be required to cease using the relevant open source software which might be costly to replace. Open source licensors also generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. In addition, if the license terms for the open source software that we use change, we may be forced to re-engineer our software, incur additional costs or discontinue the use of certain offerings if re-engineering could not be accomplished in a timely manner. Although we

monitor our use of open source software to avoid subjecting our offerings to unintended conditions, there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our offerings. We cannot guarantee that we have incorporated open source software in our software in a manner that will not subject us to liability or in a manner that is consistent with our current policies and procedures.

### **Risks Related to Raising Capital**

***As we endeavor to expand our business, we will incur significant costs and expenses, which could outpace our cash reserves. Unfavorable conditions or disruptions in the capital and credit markets may adversely impact business conditions and the availability of credit.***

We expect to incur additional costs and expenses in the future related to the continued development and expansion of our business, including in connection with expanding our manufacturing capabilities to significantly increase production capacity, developing our products, maintaining and enhancing our research and development operations, expanding our sales, marketing, and business development activities in the United States and internationally, and growing our project management, field services and overall operational capabilities for delivering projects. We do not know whether our revenues will grow rapidly enough to absorb these costs or the extent of these expenses or their impact on our results of operations.

Disruptions in the global capital and credit markets as a result of an economic downturn, economic uncertainty, changing or increased regulation, or failures of significant financial institutions, as well as any negative perceptions about our long-term business prospects or the renewable energy sector as a whole, even if exaggerated or unfounded, could adversely affect our customers' ability to access capital and could adversely affect our access to liquidity needed for business in the future. If we or our customers are unable to obtain additional capital as required, whether due to such disruptions or otherwise, we may be required to take further measures to conserve cash, including ongoing evaluation of workforce staffing requirements, further reduction of material purchases by continuing to minimize spending until firm orders are received, refining our focus on R&D and engineering project efforts towards highest priority, greatest return projects and additional reduction in outside vendor spending, until alternative credit arrangements or other funding for our business needs can be arranged, which may adversely affect our business, financial condition and results of operations.

***We will need to raise additional capital in the near future, and it may not be available on acceptable terms, if at all.***

We have incurred operating losses and cash outflows from operations since inception and we anticipate that losses will continue in the near term. During the year ended December 31, 2024, we have incurred net losses of \$86.2 million and used \$72.2 million of cash in operating activities. As of December 31, 2024, we had unrestricted cash and cash equivalents of \$13.3 million and short-term investments of \$18.3 million, or total liquid assets of \$31.6 million.

As discussed in "Part II—Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources*", we will need additional debt or equity financing, strategic partnerships or other arrangements in order to meet our near-term operating cash flow requirements, and management continues to explore various alternatives for raising capital to facilitate our growth and execute our business strategy. However, these sources of capital may not be available on acceptable terms, or at all. Our ability to obtain additional financing will be subject to a number of factors, including market conditions, our operating performance, the price of our common stock, investor sentiment generally or about the renewable energy sector specifically and our ability to incur additional debt in compliance with agreements governing our then-outstanding debt. These factors may make the timing, amount, terms or conditions of additional financings unattractive to us. If we raise additional funds by issuing equity, equity-linked or debt securities, those securities may have rights, preferences or privileges senior to the rights of our currently issued and outstanding equity or debt, and our existing stockholders may experience dilution. In addition, issued debt securities may contain covenants and limit our ability to pay dividends or make other distributions to stockholders. If we are unable to generate sufficient funds from operations or raise additional capital, our future operations and growth could be impeded or discontinued. These uncertainties cause substantial doubt to exist as to our ability to continue as a going concern for 12 months from the issuance of the financial statements included in this Annual Report on Form 10-K. If we become unable to continue as a going concern, we could have to liquidate our assets, and potentially realize significantly less than the values at which they are carried on our financial statements, and stockholders could lose all or part of their investment in our common stock.

In response to the delay in obtaining funding commitments and negative macroeconomic trends, we have expanded certain cost reduction and cash conservation measures, including ongoing evaluation of workforce staffing requirements, further reduction of material purchases by continuing to minimize spending until firm orders are received, refining our focus on R&D and engineering project efforts towards highest priority, greatest return projects and additional reduction in outside vendor spending, and we may implement further measures. Such cash conservation activities may yield unintended consequences, such as attrition beyond any planned reduction in workforce or near-term delays in our ability to deliver products to our customers.

***Our debt service obligations may adversely affect our financial condition and cash flows from operations.***

On November 1, 2024, we entered into a Credit Agreement (the “Credit Agreement”) by and between the Company, as borrower, and Export-Import Bank of the United States, as lender, and related agreements related to the financing of two production lines. The Credit Agreement provides for a secured loan facility in an aggregate principal amount of up to \$22.7 million, of which \$20 million is available to be borrowed for equipment financing and the balance will be used to finance an exposure fee and transaction expenses. The loan facility has a maturity date of June 30, 2031. Half of the proceeds of the loan facility may be used on a retroactive basis for the financing of our existing automated battery assembly line and the remainder may be used for the financing or refinancing of an additional line upon the closing of an equity raise milestone.

The Credit Agreement contains customary affirmative and negative covenants, including covenants limiting our ability to, among other things, grant liens, undergo certain fundamental changes, use financed goods for an unapproved purpose, make certain restricted payments, dispose of assets, and modify the project site lease, in each case, subject to limitations and exceptions set forth in the Credit Agreement. We are also required to meet or exceed specified trailing four quarter revenue targets, which financial covenant will be tested quarterly beginning with the fiscal quarter ending March 31, 2025.

Our obligations under the Credit Agreement are secured pursuant to a security agreement granting EXIM a first priority security interest in the financed equipment and a securities account containing collateral consisting of cash and cash equivalents in an amount equal to a certain portion of the disbursements under the Credit Agreement that decreases upon the equity raise milestone and will be reported as restricted cash.

The Credit Agreement contains customary events of default including, among others, certain payment defaults, indebtedness cross defaults, covenant defaults, a change of control default, a material adverse change default, bankruptcy and insolvency defaults and judgment defaults. If an event of default exists, EXIM may require immediate payment of all obligations under the Credit Agreement and may exercise certain other rights and remedies provided for under the Credit Agreement, the other credit documents and applicable law. In the event of a payment default, a default interest rate will apply.

Maintenance of our existing and any future indebtedness could also:

- cause us to dedicate a substantial portion of our cash flows from operations towards debt service obligations and principal repayments;
- increase our vulnerability to adverse changes in general economic, industry, and competitive conditions;
- limit our flexibility in planning for, or reacting to, changes in our business and our industry;
- impair our ability to obtain future financing for working capital, capital expenditures, acquisitions, general corporate, or other purposes; and
- due to limitations within the debt instruments, restrict our ability to grant liens on property, enter into certain mergers, dispose of all or substantially all of our assets, or materially change our business, subject to customary exceptions.

**Risks Related to Our Common Stock and Warrants**

***The price of our common stock may be volatile.***

The price of our common stock may fluctuate due to a variety of factors, including:

- changes in the industries in which we and our customers operate;
- variations in our operating performance and the performance of our competitors in general;
- actual or anticipated fluctuations in our quarterly or annual operating results;
- the public’s reaction to our press releases, our other public announcements and our filings with the SEC;
- our failure or the failure of our competitors to meet analysts’ projections or guidance that we or our competitors may give to the market;
- additions and departures of key personnel;
- changes in laws and regulations affecting our business;
- commencement of, or involvement in, litigation involving us;

- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- publication of research reports by securities analysts about us or our competitors or our industry;
- sales of shares of our common stock by our existing stockholders;
- short selling activities;
- the volume of shares of our common stock available for public sale; and
- general economic and political conditions such as recessions, interest rates, fuel prices, inflation, instability in the banking sector and financial markets, foreign currency fluctuations, changing international trade policies, social, political and economic risks, hostilities or the perception that hostilities may be imminent, terrorism, military conflict and acts of war, including an escalation of the situation in Ukraine or the Middle East and the related responses, including sanctions or other restrictive actions, by the United States and/or other countries.

These market and industry factors may materially reduce the market price of our common stock regardless of our operating performance.

In addition, we have been and in the future may again be the subject of a report issued by activist short sellers. Any such report, even if it contains false and misleading statements about the Company, may cause our stock price to experience volatility.

***A sale of a significant portion of our total outstanding shares into the market may cause the market price of our common stock to drop significantly, even if our business is doing well.***

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock.

We maintain a shelf registration statement on Form S-3 pursuant to which we may, from time to time, sell up to an aggregate of \$300 million of our common stock, preferred stock, debt securities, depositary shares, warrants, subscription rights, purchase contracts, or units. We have also filed registration statements with the SEC to register shares of our common stock for certain stockholders who have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We have also filed registration statements with the SEC to register shares reserved for future issuance under our equity compensation plans. Registration of these shares under the Securities Act results in the shares becoming freely tradable in the public market, subject to the restrictions of Rule 144 in the case of our affiliates.

Any issuance of securities under the shelf registration statement may cause stockholders to experience significant dilution of their ownership interests and any sales of securities by us or our stockholders under the registration statements could have a material adverse effect on the market price for our common stock. Sales of our common stock pursuant to the exercise of registration rights may make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. These sales also could cause the trading price of our common stock to fall and make it more difficult for you to sell shares of our common stock at a time and price that you deem appropriate.

***We have warrants outstanding that are exercisable for our common stock, which, if exercised, would increase the number of shares eligible for future resale in the public market and result in dilution to our stockholders.***

As of December 31, 2024, we had outstanding 11,461,227 Public Warrants to purchase an aggregate of 764,081 shares of our common stock. Each fifteen Public Warrants are exercisable for one share of common stock at an exercise price of \$172.50 per share.

We also had outstanding a warrant issued to SMUD exercisable for up to 33,333 shares of our common stock, with the vesting of the shares underlying the warrant being subject to the achievement of certain commercial milestones through December 31, 2030 pursuant to a related commercial agreement, the Investment Warrant held by Honeywell ACS Ventures LLC (“Honeywell Ventures”) exercisable for up to 708,775 shares of common stock, the IP Warrant held by Honeywell Ventures exercisable for up to 417,997 shares of common stock, and the initial Performance Warrant held by UOP exercisable for up to 51,717 shares of common stock. The warrant issued to SMUD has an exercise price of \$64.44 per share, the Investment Warrant has an exercise price of \$28.35 per share, the IP Warrant has an exercise price of \$43.50 per share and the initial Performance Warrant has an exercise price of \$21.75 per share. We may issue additional Performance Warrants to UOP (not to exceed an aggregate value of \$15 million based on target purchase amounts of up to \$300 million by 2030) on an annual basis for the five-year period beginning in 2026, based on UOP’s purchase of additional equipment pursuant to the Supply Agreement. The additional Performance Warrants will have an exercise price equal to the volume-

weighted average price of the Company's common stock for the last fifteen (15) trading days of the relevant calendar year for which such additional Performance Warrant is being issued.

To the extent such warrants are exercised, additional shares of our common stock will be issued, which will result in dilution to the holders of our common stock and increase the number of shares eligible for resale in the public market. Sales of substantial numbers of such shares in the public market or the fact that such warrants may be exercised could adversely affect the prevailing market prices of our common stock. For further information, see Note 11, *Common Stock Warrants*, to our financial statements for the year ended December 31, 2024 included elsewhere in this Annual Report on Form 10-K.

***The terms of our warrants may be amended from time to time.***

Our Public Warrants were issued in registered form under a warrant agreement with Continental Stock Transfer & Trust Company, as warrant agent. The warrant agreement provides that the terms of the Public Warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision or correct any mistake, but requires the approval by the holders of 65% of the then-outstanding Public Warrants to make any change that adversely affects the interests of the registered holders of Public Warrants. Accordingly, we may amend the terms of the Public Warrants in a manner adverse to a holder if holders of 65% of the then-outstanding Public Warrants approve of such amendment. Although our ability to amend the terms of the Public Warrants with the consent of 65% of the then-outstanding Public Warrants is unlimited, examples of such amendments could be amendments to, among other things, increase the exercise price of the warrants, convert the warrants into cash, shorten the exercise period or decrease the number of shares of our common stock purchasable upon exercise of a warrant. We may also lower the exercise price for our Public Warrants in our sole discretion at any time prior to the expiration date, subject to compliance with certain notice and timing requirements. The warrant issued to SMUD, the Investment Warrant, the IP Warrant and the initial Performance Warrant may all be amended with the consent of the respective holders thereof.

***We may redeem your unexpired warrants prior to their exercise at a time that is disadvantageous to you, thereby making your warrants worthless.***

We have the ability to redeem the outstanding Public Warrants at any time after they become exercisable and prior to their expiration, at a price of \$0.01 per warrant, provided that the closing price of our common stock equals or exceeds \$270.00 per share (as adjusted for share subdivisions, share dividends, rights issuances, subdivisions, reorganizations, recapitalizations and the like) for any 20 trading days within a 30 trading-day period ending on the third trading day prior to proper notice of such redemption and provided that certain other conditions are met. If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws. As a result, we may redeem the warrants as set forth above even if the holders are otherwise unable to exercise the warrants. Redemption of the outstanding warrants could force you to (i) exercise your warrants and pay the exercise price therefor at a time when it may be disadvantageous for you to do so, (ii) sell your warrants at the then-current market price when you might otherwise wish to hold your warrants or (iii) accept the nominal redemption price which, at the time the outstanding warrants are called for redemption, we expect would be substantially less than the market value of your warrants.

In addition, we have the ability to redeem the outstanding Public Warrants at any time after they become exercisable and prior to their expiration, at a price of \$0.10 per warrant upon a minimum of 30 days' prior written notice of redemption provided that the closing price of our common stock equals or exceeds \$150.00 per share (as adjusted for adjustments to the number of shares issuable upon exercise or the exercise price of a warrant) for any 20 trading days within a 30 trading-day period ending on the third trading day prior to proper notice of such redemption and provided that certain other conditions are met, including that holders will be able to exercise their warrants prior to redemption for a number of shares of common stock determined based on the redemption date and the fair market value of our common stock. The value received upon exercise of the warrants (1) may be less than the value the holders would have received if they had exercised their warrants at a later time where the underlying share price is higher and (2) may not compensate the holders for the value of the warrants, including because the number of ordinary shares received is capped at 0.02407 shares of common stock per warrant (subject to adjustment) irrespective of the remaining life of the warrants.

***We do not expect to declare any dividends in the foreseeable future.***

We do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. Consequently, investors may need to rely on sales of their shares after price appreciation, which may not occur for some time or not at all, as the only way to realize any future gains on their investment.

***There can be no assurance that we will be able to continue to satisfy the continued listing standards of the NYSE.***

On March 24, 2025, we received a written notice from the NYSE (the "Notice") indicating that we did not satisfy the continued listing standard set forth in Section 802.01B of the NYSE's Listed Company Manual, as our average global



market capitalization over a consecutive 30 trading-day period was less than \$50 million and, at the same time, our stockholders' equity was less than \$50 million. As described in the Notice, as of March 21, 2025, our 30 trading-day average market capitalization was approximately \$47.8 million and our last reported stockholders' equity as of September 30, 2024, was approximately \$49.2 million.

In accordance with applicable NYSE procedures, within 45 days from receipt of the Notice, we intend to submit a plan to the NYSE advising it of the definitive action(s) we have taken, are taking, or plan to take that would bring us into conformity with the NYSE's Minimum Market Capitalization Standard within 18 months of receipt of the Notice (the "Cure Period"). Upon receipt of such plan, the NYSE will have up to 45 days to evaluate the plan and determine whether we have made a reasonable demonstration of our ability to come into conformity with the relevant listing standards within the Cure Period. If the NYSE accepts our plan, the NYSE will review us on a quarterly basis to confirm compliance with the plan. If our plan is not accepted, we fail to comply with the plan or do not meet the NYSE's Minimum Market Capitalization Standard at the end of the Cure Period, we will be subject to NYSE's prompt initiation of suspension and delisting procedures.

If the NYSE delists our securities from trading on its exchange and we are not able to list such securities on another national securities exchange, we expect such securities could be quoted on an over-the-counter market. If this were to occur, we and our stockholders could face significant material adverse consequences including:

- a limited availability of market quotations for our securities;
- reduced liquidity for our securities;
- a limited amount of news and analyst coverage; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

***The ultimate effect of the 1-for-15 reverse stock split on the market price of our common stock cannot be predicted with any certainty and shares of our common stock have likely experienced decreased liquidity as a result of such reverse stock split.***

On August 23, 2024, we held a special meeting at which our stockholders approved a reverse stock split at various ratios, after which our Board approved the reverse stock split at a ratio of 1-for-15 which was effected on such date. The liquidity of our common stock may be adversely affected given the reduced number of shares of our common stock that are now outstanding following the reverse stock split. As a result of the lower number of shares outstanding following the reverse stock split, the market for our common stock may also become more volatile, which may lead to reduced trading and a smaller number of market makers for our common stock. Our share price may not attract new investors, including institutional investors. In addition, the market price of our common stock may not satisfy the investing requirements of those investors. The trading liquidity of our common stock may not improve. All the foregoing risks may result in a material adverse effect to our stockholders.

***Reports published by analysts, including projections in those reports that differ from our actual results, could adversely affect the price and trading volume of our common stock.***

Securities research analysts may establish and publish their own periodic projections for us. These projections may vary widely and may not accurately predict the results we actually achieve. Our share price may decline if our actual results do not match the projections of these securities research analysts. Similarly, if one or more of the analysts who write reports on us downgrades our stock or publishes inaccurate or unfavorable research about our business, our share price could decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, our share price or trading volume could decline.

***We may be subject to short selling strategies that may drive down the market price of our common stock.***

Short selling occurs when an investor borrows a security and sells it on the open market, with the intention of buying identical securities at a later date to return to the lender. A short seller hopes to profit from a decline in the value of the securities between the sale of the borrowed securities and the purchase of the replacement shares. Because it is in the short seller's best interests for the price of the stock to decline, some short sellers publish, or arrange for the publication of, opinions or characterizations regarding the relevant issuer, its business prospects, and similar matters calculated to or which may create negative market momentum. Short sellers can publicly attack a company's reputation and business on a broader scale via online postings. In the past, the publication of such commentary about us by a self-described short seller has precipitated a decline in the market price of our common stock, and future similar efforts by other short sellers may have similar effects. Companies that are subject to unfavorable allegations promoted by short sellers, even if untrue, may have to expend a significant amount of resources to investigate such allegations and defend themselves.

***Provisions in our amended and restated certificate of incorporation, as amended, and amended and restated bylaws and Delaware law might discourage, delay or prevent a change in control of the Company or changes in management and, therefore, depress the market price of our common stock.***

Our certificate of incorporation (as amended, the “Charter”) and amended and restated bylaws contain provisions that could delay or prevent a change of control of the Company or changes in our board of directors that our stockholders might consider favorable. These provisions, among other things:

- establish a classified board of directors so that not all members of our board are elected at one time;
- permit only the board of directors to establish the number of directors and fill vacancies on the board;
- provide that directors may only be removed “for cause” and only with the approval of a majority of the voting power of the issued and outstanding capital stock of the Company entitled to vote in the election of directors;
- authorize the issuance of “blank check” preferred stock that our board could use to implement a stockholder rights plan (also known as a “poison pill”);
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- prohibit cumulative voting by stockholders at any election of directors;
- authorize our board of directors to amend the bylaws;
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings; and
- require a super-majority vote of stockholders to amend some of the provisions described above.

In addition, Section 203 of the Delaware General Corporation Law (the “DGCL”), prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

Any provision of our Charter, amended and restated bylaws or Delaware law that has the effect of delaying or preventing a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our capital stock and could also affect the price that some investors are willing to pay for our common stock.

***Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America will be the exclusive forums for certain stockholder litigation matters, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.***

Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another State court in Delaware or the federal district court for the District of Delaware) is the exclusive forum for the following (except for any claim as to which such court determines that there is an indispensable party not subject to the jurisdiction of such court (and the indispensable party does not consent to the personal jurisdiction of such court within 10 days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than such court or for which such court does not have subject matter jurisdiction):

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of fiduciary duty owed by any director, stockholder, officer or other employee of the Company to the Company or to the Company’s stockholders;
- any action arising pursuant to any provision of the DGCL, our Charter or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal affairs doctrine.

This provision would not apply to suits brought to enforce a duty or liability created by the Securities Act, the Exchange Act or any other claim for which the U.S. federal courts have exclusive jurisdiction.

Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other

considerations, our amended and restated bylaws further provide that, unless the Company consents in writing to the selection of an alternative forum, the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act against any person in connection with any offering of the Company's securities, including any auditor, underwriter, expert, control person, or other defendant. We note that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

These exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. Any person or entity purchasing, holding or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions. There is uncertainty as to whether a court would enforce such provisions, and the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. If a court were to find these types of provisions to be inapplicable or unenforceable, and if a court were to find the exclusive forum provision in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could materially adversely affect our business.

***Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.***

Our Charter and amended and restated bylaws provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law.

In addition, as permitted by Section 145 of the DGCL, our amended and restated bylaws and our indemnification agreements that we have entered into with our directors and officers provide that:

- we indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful;
- we may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law;
- we are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification;
- we are not obligated, pursuant to our amended and restated bylaws, to indemnify a person with respect to proceedings initiated by that person against us or our other indemnitees, except with respect to proceedings authorized by our board of directors or brought to enforce a right to indemnification;
- the rights conferred in our amended and restated bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons; and
- we may not retroactively amend our amended and restated bylaw provisions to reduce our indemnification obligations to directors; officers, employees and agents.

While we maintain a directors' and officers' insurance policy to the fullest extent permitted by the DGCL, such insurance may not be adequate to cover all liabilities that we may incur, which may reduce our available funds to satisfy third-party claims and may materially adversely affect our cash position.

## **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

## **ITEM 1C. CYBERSECURITY**

### **Risk Management and Strategy**

We have established policies and processes for assessing, identifying, and managing material risk from cybersecurity threats, and have integrated these processes into our overall risk management systems and processes. We measure our

cybersecurity infrastructure against the NIST 800-171 framework and routinely assess material risks from cybersecurity threats, including any potential unauthorized occurrence on or conducted through our information systems that may result in adverse effects on the confidentiality, integrity, or availability of our information systems or any information residing therein.

We conduct regular technical risk assessments to identify cybersecurity threats, as well as assessments in the event of a material change in our business practices that may affect information systems that are vulnerable to such cybersecurity threats. We also conduct periodic programmatic risk assessments including identification of reasonably foreseeable internal and external risks, the likelihood and potential damage that could result from such risks, and the sufficiency of existing policies, procedures, systems, and safeguards in place to manage such risks.

Following these risk assessments, we evaluate whether and how to re-design, implement, and maintain reasonable safeguards to minimize identified risks; evaluate how to reasonably address any identified gaps in existing safeguards; and regularly monitor the effectiveness of our safeguards. We devote significant resources and designate high-level personnel, including our Chief Information Officer who reports to our Chief Financial Officer, to manage the risk assessment and mitigation process.

As part of our overall risk management system, we monitor and test our safeguards and train our employees on these safeguards, in collaboration with human resources, IT, and management. Personnel at all levels and departments are made aware of our cybersecurity policies through trainings and annual policy acknowledgments.

We engage external cyber vendor consultants, auditors, and other third parties in connection with our risk assessment processes. These service providers assist us to assess, design and implement our cybersecurity policies and procedures, as well as to monitor and test our safeguards.

We review the ability of third-party service providers to implement and maintain appropriate security measures, consistent with all applicable laws, to implement and maintain reasonable security measures in connection with their work with us, and to promptly report any suspected breach of its security measures that may affect our Company.

For additional information regarding whether any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, have materially affected or are reasonably likely to materially affect our Company, including our business strategy, results of operations, or financial condition, please refer to Item 1A, “Risk Factors,” in this Annual Report on Form 10-K, including the risk factors entitled “*Third parties might attempt to gain unauthorized access to our network or seek to compromise our products and services.*”

## **Governance**

One of the key functions of our board of directors is informed oversight of our risk management process, including risks from cybersecurity threats. Our board of directors is responsible for monitoring and assessing strategic risk exposure, and our executive officers are responsible for the day-to-day management of the material risks we face. Our board of directors administers its cybersecurity risk function in coordination with the oversight and periodic review of the audit committee.

In accordance with our cybersecurity incident response plan (“IRP”), our Chief Information Officer, members of our management team, including personnel representative of the following functions – legal, IT, finance, audit, operations, engineering, human resources, communications, and additional executives as applicable under the plan – and external cybersecurity support providers (collectively, “IRP stakeholders”), are primarily responsible to assess and manage our material risks from cybersecurity threats.

Our Chief Information Officer and our IRP stakeholders oversee our cybersecurity policies and processes, including those described in “Risk Management and Strategy” above. Our Chief Information Officer has an advanced degree in management information systems and has managed the Company’s IT processes and policies inclusive of cybersecurity matters throughout his tenure at the Company, in addition to many years of prior experience in various technology roles at a large U.S. public company. He is informed about and monitors the prevention, detection, mitigation, and remediation of cybersecurity incidents by working with the IT department and external vendors to implement our security risk management, including through the use of both automated and manual tools and reporting, in accordance with the Company’s incident response plan and Company cybersecurity policies.

Our Chief Information Officer provides quarterly briefings to the audit committee and board of directors regarding our Company’s cybersecurity program, including risks and activities, reports of recent cybersecurity incidents and related responses (if any, and if not previously reported to the Board pursuant to the incident response plan), cybersecurity systems testing, the status of third party assessments, general updates in the cybersecurity space, relevant disclosures related to SEC reporting, and the like.

## **ITEM 2. PROPERTIES**

Our corporate headquarters is located in Wilsonville, Oregon. The approximately 200,000 square foot facility contains both our corporate, engineering, and administrative functions as well as our automated and semi-automated battery manufacturing lines. During 2024, the facility had the capacity to manufacture approximately 560 MWh of batteries annually. The facility was also retooled to produce ESS's new Energy Centers. We currently are in the process of commissioning a second automated battery manufacturing line and repurposing our original semi-automated line for research and development activities. This will result in a total battery manufacturing capacity of 1.05 GWh annually.

Over time, we plan to increase efficiency at the Wilsonville facility to scale manufacturing capacity up to 2.0 GWh through a combination of additional manufacturing lines as well as substantive improvements to the capacity of each battery produced. We also envision opening additional manufacturing facilities globally. This global expansion plan may include the following levers that are currently under consideration:

- Strategic investments in the supply chain to grow capacity;
- Production expansion to Europe and/or Australia; and
- Vertical integration of power module compartments.

## **ITEM 3. LEGAL PROCEEDINGS**

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. We are not currently a party to any material legal proceedings, nor, to our knowledge, is any material legal proceeding threatened against us. In the future, we may become involved in legal proceedings that arise in the ordinary course of business, the outcome of which, if determined adversely to us, could individually or in the aggregate have a material adverse effect on our business, financial condition and results of operations.

## **ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.



## PART II

### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASE OF EQUITY SECURITIES

#### Market Information and Holders

Our common stock is listed on the NYSE under the symbol "GWH" and our Public Warrants are listed on the NYSE under the symbol "GWH.W". As of March 25, 2025, there were 45 holders of record of our common stock and one holder of record of our Public Warrants. The actual number of stockholders of our common stock is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares of common stock are held in street name by banks, brokers and other nominees.

#### Dividend Policy

We have not paid any cash dividends on the common stock to date. We have no current plans to pay cash dividends for the foreseeable future. Any decision to declare and pay dividends in the future will be made at the discretion of the board of directors and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that the board of directors may deem relevant. In addition, our ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness we incur. We do not anticipate declaring any cash dividends to holders of the common stock in the foreseeable future.

#### Issuer Purchases of Equity Securities

During the year ended December 31, 2024, we did not purchase any of our equity securities that are registered under Section 12(b) of the Exchange Act (other than shares that were repurchased pursuant to net settlement to satisfy tax withholding obligations of plan participants upon the vesting of restricted stock unit awards).

#### Securities Authorized for Issuance Under Equity Compensation Plans

See "Part III—Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

#### Recent Sales of Unregistered Securities

The Company had no sales of unregistered equity securities during the period covered by this Annual Report on Form 10-K that were not previously reported in a Current Report on Form 8-K or Quarterly Report on Form 10-Q.

### ITEM 6. [RESERVED]

### ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

#### Overview

ESS is a long-duration energy storage company specializing in iron flow battery technology. We design and produce long-duration batteries predominantly using earth-abundant materials that we believe can be cycled over 20,000 times without capacity fade. Because our batteries are designed to operate using an electrolyte of primarily salt, iron and water, they are environmentally sustainable and substantially recyclable or reusable.

Our long-duration iron flow batteries are the product of nearly 50 years of scientific advancement. Our founders, Craig Evans and Dr. Julia Song, began advancing this technology in 2011 and formed Legacy ESS. Our team has significantly enhanced the technology, improved the round-trip efficiency and developed an innovative solution to the hydroxide build-up problem that plagued previous researchers developing iron flow batteries. Our proprietary solution to eliminate the hydroxide formation is known as the Proton Pump, which works by utilizing hydrogen generated by side reactions on the negative electrode. The Proton Pump converts the hydrogen back into protons in the positive electrolyte. This process eliminates the hydroxide and stabilizes the electrolytes' pH levels.

Our batteries provide flexibility to grid operators and energy assurance for commercial and industrial customers. Our technology addresses energy delivery, duration and cycle-life in a single battery platform that compares favorably to lithium-ion batteries, the most widely deployed alternative technology. Using our iron flow battery technology, we are developing several products, each of which is designed to provide reliable, safe, long-duration energy storage. Our first energy storage product, the Energy Warehouse, is our 'behind-the-meter' solution (referring to solutions that are located on the customer's premises, behind the service demarcation with the utility) that is used for initial testing and technology validation. Our larger scale energy storage products, the Energy Center and Energy Base, are designed for either 'behind-the-meter' or 'front-of-the-meter' (referring to solutions that are located outside the customer's premises, typically operated by the utility or by third-party providers who sell energy into the grid, often known as independent power producers)

deployments specifically for utility and large commercial and industrial consumers. We are developing additional products at larger scale, in addition to productized versions of our core technology components, for integration into third-party systems.

### **Transition to Commercial Inventory Accounting**

We historically had been in the research and development phase for accounting purposes. On a quarterly basis we had evaluated a combination of evidence including production quality metrics, field functionality to date, revenue trends, and existing contracts with customers. Based on the evaluation performed during the third quarter of 2023, we transitioned out of the research and development phase and into commercial inventory accounting as of July 1, 2023 (the “Transition Date”). As a result of the transition, all inventoriable costs incurred are capitalized, net of any lower of cost or net realizable value (“LCNRV”) charges, which are recognized as cost of revenue. Further, unfulfilled noncancellable purchase commitments are recognized as expense for estimated losses in cost of revenue and warranty and fulfillment costs are recorded as a component of cost of revenue rather than research and development expense as of the Transition Date.

### **Key Factors and Trends Affecting Our Business**

We believe that our performance and future success depends on several factors that present significant opportunities for us but also pose risks and challenges, including those discussed below and in the section “*Part I—Item 1A. Risk Factors*” included elsewhere in this Annual Report on Form 10-K.

We believe we have the opportunity to establish attractive margin unit economics if we are able to continue to reduce production costs and scale our operations. Our future financial performance will depend on our ability to deliver on these economies of scale with lower product costs. We believe our business model is positioned for scalability due to the ability to leverage the same core technology and components across our products and customer base. We anticipate significant reduction in our cost of goods through our cost reduction initiatives, including design optimization from value engineering, strategic supply chain projects, and further automation of our manufacturing processes. Additionally, significant improvements in manufacturing scale are expected to decrease the cost of materials and direct labor. Compared to 2024, we expect our indirect cost of revenue and operating expenses to increase as we ramp up our manufacturing and sales activities. We further expect an increase in expenses related to the implementation of cost reduction projects and initiatives in our supply chain, manufacturing engineering and research and development functions. Achievement of margin targets and cash flow generation is dependent on the execution of these cost out initiatives.

Our near-term and medium-term revenue is expected to be generated from our Energy Centers, second-generation Energy Warehouses, Energy Base, and core technology component productization. We believe our unique technology provides a compelling value proposition and an opportunity for favorable margins and unit economics in the energy storage industry in the future.

### ***Impact of Macroeconomic Developments***

We are closely monitoring macroeconomic developments, including global supply chain challenges, foreign currency fluctuations, fluctuations in inflation and interest rates and monetary policy changes, as well as global events, such as the Russia-Ukraine conflict, tensions in the Middle East, and other areas of geopolitical tension around the world, and how they may adversely impact our and our customers’, contractors’, suppliers’ and partners’ respective businesses. In particular, weak economic conditions or significant uncertainty regarding the stability of financial markets related to stock market volatility, inflation, recession or governmental fiscal, monetary and tax policies, among others, could adversely impact our and our customers’ business, financial condition and operating results. In addition, general and ongoing tightening in the credit market, lower levels of liquidity, increases in rates of default and bankruptcy, and significant volatility in equity and fixed-income markets could all negatively impact our customers, contractors, suppliers and partners. As a result of these macroeconomic forces, during 2023 and 2024 we experienced supply constraints, increased shipping delays for certain customer contracts, and delays in timing of payments from some of our customers. We believe some or all of these negative trends may continue in 2025.

To the extent that challenging macroeconomic conditions persist, we may experience an extension and worsening of these effects as well as additional adverse effects on our business, financial condition, or results of operations in future periods. These effects could include, among others, slower purchasing decisions by existing and potential new customers, additional delays in timing of payments under our existing customer contracts, further reduction or delays in purchasing decisions by our customers, potential losses of customers as a result of economic distress or bankruptcy, and increased costs for raw materials and freight resulting from inflationary cost pressures.

For further discussion of the challenges and risks we confront related to macroeconomic conditions and geopolitical tension around the world, please refer to “*Part I—Item 1A. Risk Factors*” of this Annual Report on Form 10-K.

## ***Inflation Reduction Act of 2022***

On August 16, 2022, President Biden signed into law the IRA, which extends the availability of ITCs and PTCs and makes significant changes to the tax credit regime that applies to solar and energy storage products. As a result of changes made by the IRA, the ITC for solar generation projects is extended until at least 2033 and has been expanded to include stand-alone battery storage projects. This expansion provides more certainty on the tax incentives that will be available to stand-alone battery storage projects in the future. We believe the IRA will increase demand for our services due to the extensions and expansions of various tax credits that are critical for our customers' economic returns, while also providing more certainty in and visibility into the supply chain for materials and components for energy storage systems. We are continuing to evaluate the overall impact and applicability of the IRA as guidance is issued, and the passage of comparable legislation in other jurisdictions, to our results of operations going forward.

As discussed in Note 15, *Government Grants*, to our financial statements, Section 45X of the Code, as enacted by the IRA, provides a PTC that can be claimed on certain battery components manufactured in the U.S. and sold to unrelated U.S. or foreign customers after 2022, through the end of 2032. The tax credits available to manufacturers include a credit for ten percent of the cost incurred to make electrode active materials in addition to credits of \$35 per kWh of capacity for battery cells and \$10 per kWh of capacity for battery modules. The credits are cumulative, meaning that companies will be able to claim each of the available tax credits based on the battery components produced and sold through 2029, after which the PTC will begin to gradually phase down through the end of 2032. The Section 45X PTC may be refundable by the IRS or saleable to unrelated third parties. We expect these credits will have a positive impact on our gross margins in the future. Further, on October 28, 2024, Treasury and the IRS issued final regulations providing guidance on requirements that taxpayers must satisfy to qualify for the Section 45X PTC, including the definition of a Section 45X manufacturing facility.

## **Components of Results of Operations**

### ***Revenue and Cost of revenue***

We earn revenue from the sale of our energy storage products and from service contracts. Revenue from service contracts includes engineering design and extended warranty and maintenance services for our energy storage products. We invoice our customers based upon contractual terms, and accordingly, we have deferred revenues and contract assets depending upon whether we can invoice in advance of satisfying the performance obligations under the respective customer contract or in arrears, respectively. As we are a project-based business, there is inherent variability in our revenue due to variations in pricing, project complexity and timing of delivery across customer projects. Additionally, increased regulatory uncertainty may create a more challenging customer environment and have significant impacts on the consistency and predictability of our revenue year-over-year.

As discussed above, commencing with the third quarter of 2023 we reached commercial viability and transitioned out of the research and development phase and into commercial inventory accounting. Following the Transition Date, cost of revenue is primarily driven by direct material, labor, freight and overhead expenses. Cost of revenue also includes LCNRV charges, warranty costs, losses on unfulfilled noncancellable purchase commitments, obsolescence charges, and fulfillment costs. Cost of revenue does not include inventory previously expensed during the research and development phase prior to the Transition Date. We expect revenue and cost of revenue to increase as we scale the business and deliver our energy storage products to customers.

### ***Operating expenses***

#### ***Research and development***

Following the Transition Date, research and development expenses consist of materials, supplies, personnel-related expenses, consulting services and other direct expenses. Personnel-related expenses consist of salaries, bonuses, benefits and stock-based compensation. Prior to the Transition Date, research and development expenses also included direct product development material costs, including freight charges, and warranty-related costs. Our research and development costs have decreased following the transition to commercial inventory accounting in the third quarter of 2023; however, we continue to perform research and development activities to further expand our product roadmap.

#### ***Sales and marketing***

Sales and marketing expenses consist primarily of salaries, bonuses, benefits and stock-based compensation for marketing and sales personnel and related support teams. To a lesser extent, sales and marketing expenses also include professional services costs, travel costs, and trade show sponsorships. We expect that our sales and marketing expenses will increase over time as we continue to hire additional personnel to scale our business.

### *General and administrative*

General and administrative expenses consist of personnel-related expenses for our corporate, executive, finance, legal, and other administrative functions, as well as expenses for outside professional services and insurance costs. Personnel-related expenses consist of salaries, bonuses, benefits and stock-based compensation. To a lesser extent, general and administrative expenses include depreciation and other allocated costs, and supplies. We expect some of our general and administrative expenses to increase as we expand our operations and manufacturing capacity to support the growth of our business, and as a result of operating as a public company, including compliance with the rules and regulations of the SEC, legal, audit, additional insurance expenses, investor relations activities, and other administrative and professional services.

### ***Other income, net***

#### *Interest income, net*

Interest income, net consists primarily of earned income on our cash equivalents, restricted cash, and short-term investments. These amounts will vary based on our cash, cash equivalents, restricted cash and short-term investment balances, and on market rates. Interest income is partially offset by interest expense on notes payable.

#### *Gain on revaluation of common stock warrant liabilities*

Gain on revaluation of common stock warrant liabilities consists of periodic fair value adjustments related to our common stock warrants.

#### *Other income (expense), net*

Other income (expense), net consists primarily of various gains and losses associated with our short-term investments and other income and expense items.

## **Results of Operations**

In this section, we discuss the results of our operations for the year ended December 31, 2024 compared to the year ended December 31, 2023.

### ***Comparison of Year Ended December 31, 2024 to Year Ended December 31, 2023***

The following table sets forth ESS' operating results for the periods indicated:

(\$ in thousands)	Year Ended December 31,		\$ Change	% Change
	2024	2023		
Revenue	\$ 6,295	\$ 7,540	\$ (1,245)	(17)%
Cost of revenue	51,653	20,495	31,158	152
Gross profit (loss)	(45,358)	(12,955)	(32,403)	250
Operating expenses				
Research and development	11,772	42,632	(30,860)	(72)
Sales and marketing	9,161	7,744	1,417	18
General and administrative	23,507	22,574	933	4
Total operating expenses	44,440	72,950	(28,510)	(39)
Loss from operations	(89,798)	(85,905)	(3,893)	5
Other income, net				
Interest income, net	3,574	5,262	(1,688)	(32)
Gain on revaluation of common stock warrant liabilities	115	2,292	(2,177)	(95)
Other income (expense), net	(113)	773	(886)	(115)
Total other income, net	3,576	8,327	(4,751)	(57)
Net loss and comprehensive loss to common stockholders	<u>\$ (86,222)</u>	<u>\$ (77,578)</u>	<u>\$ (8,644)</u>	<u>11%</u>

### ***Revenue***

Revenue for the year ended December 31, 2024 was \$6.3 million compared to \$7.5 million for the year ended December 31, 2023 as we recognized revenue for the sale of Energy Centers, Energy Warehouses, other related equipment, engineering services related to a product site deployment, and extended warranty services. The decrease of \$1.2 million consists of a \$0.3 million decrease in product revenue due to customer funding and project delays and a \$0.9 million decrease in other revenue. Other revenue was higher in 2023 as a result of revenue earned for one-time engineering services we performed in support of a customer project and services performed to date under two contracts that were ultimately terminated due to customer project complications.

### ***Cost of revenue***

Cost of revenue for the year ended December 31, 2024 was \$51.7 million compared to \$20.5 million for the year ended December 31, 2023. During the third quarter of 2023 we reached commercial viability and transitioned out of the research and development phase and into commercial inventory accounting. As such, we began recording cost of revenue as of the Transition Date. Cost of revenue for units associated with the revenue recognized prior to the Transition Date is zero as these costs were recognized as research and development expenses in the respective periods incurred. As such, cost of revenue for the years presented is not comparable.

### ***Operating expenses***

#### ***Research and development expenses***

Research and development expenses decreased by \$30.9 million, or 72%, from \$42.6 million for the year ended December 31, 2023 to \$11.8 million for the year ended December 31, 2024. \$30.4 million of the \$30.9 million decrease resulted from the transition out of research and development accounting in the third quarter of 2023 into commercial inventory accounting as of the Transition Date. The remaining decrease is driven by a decrease in personnel-related expenses and hardware and IT costs.

#### ***Sales and marketing expenses***

Sales and marketing expenses increased by \$1.4 million, or 18%, from \$7.7 million for the year ended December 31, 2023 to \$9.2 million for the year ended December 31, 2024. The increase is driven by an increase in personnel-related expenses due to expanded sales headcount and an increase in outside services and external marketing costs.

#### ***General and administrative expenses***

General and administrative expenses increased by \$0.9 million, or 4%, from \$22.6 million for the year ended December 31, 2023 to \$23.5 million for the year ended December 31, 2024. The increase is due to increased professional and outside services costs, and increased personnel-related expenses, partially offset by decreased insurance and reduced facilities costs allocated to general and administrative expenses.

### ***Other income, net***

#### ***Interest income, net***

Interest income, net decreased by \$1.7 million, or 32%, from \$5.3 million for the year ended December 31, 2023 to \$3.6 million for the year ended December 31, 2024. The decrease resulted from a decrease in interest income earned on our short-term investment portfolio partially offset by a decrease in expense resulting from the repayment of our notes payable during 2023.

#### ***Gain on revaluation of common stock warrant liabilities***

The change in fair value of common stock warrant liabilities resulted in a gain of \$0.1 million and \$2.3 million for the years ended December 31, 2024 and 2023, respectively. The changes in fair value of common stock warrant liabilities was driven by changes in the market price of our common stock over the respective period.

#### ***Other income (expense), net***

Other income (expense), net resulted in \$0.8 million of income for the year ended December 31, 2023 and \$0.1 million of expense for the year ended December 31, 2024. The change is a result of funding received from federal agencies for our research and development activities in 2023 that did not recur in 2024, offset by the recognition of year-to-date unrealized losses on trading securities in 2023 rather than unrealized gains in 2024.

### **Liquidity and Capital Resources**

Since our inception, we have financed our operations primarily through the issuance and sale of equity and debt securities and loan agreements. We have incurred losses since inception and have negative cash flows from operations. We anticipate that losses will continue in the near term. During the year ended December 31, 2024, we incurred net losses of \$86.2 million and used \$72.2 million of cash in operating activities. As of December 31, 2024, we had unrestricted cash and cash equivalents of \$13.3 million and short-term investments of \$18.3 million, or total liquid assets of \$31.6 million. We have expanded certain cost reduction and cash conservation measures, including ongoing evaluation of workforce staffing requirements, further reduction of material purchases by continuing to minimize spending until firm orders are received, refining our focus on R&D and engineering project efforts towards highest priority, greatest return projects and additional reduction in outside vendor spending, and we may implement further measures.



We will need additional debt or equity financing in order to meet our near-term operating cash flow requirements, and accordingly there is substantial doubt as to our ability to continue as a going concern for 12 months from the issuance of the financial statements included in this Annual Report on Form 10-K. Management is evaluating various strategies to obtain additional funding, which may include additional offerings of equity, issuance of debt, or other capital sources. If such financing is not available or if the financing terms are less desirable than we expect, we may be forced to decrease our level of investment in product development or scale back our operations, which could have an adverse impact on our business and financial prospects.

We have a standby letter of credit with JP Morgan Chase for \$75 thousand as security for an operating lease of office and manufacturing space in Wilsonville, Oregon secured by a restricted certificate of deposit account totaling \$75 thousand. There were no draws against the letter of credit during the years ended December 31, 2024 and 2023.

We have a standby letter of credit with Bank of America for \$0.6 million as security for the performance and payment of the Company's obligations under a customer agreement. The letter of credit is in effect until the date on which the warranty period under the agreement expires, which is anticipated to be more than a year from the balance sheet date. As of December 31, 2024, \$0.6 million was pledged as collateral for the letter of credit and recorded as restricted cash, non-current. There were no draws against the letter of credit during the years ended December 31, 2024 and 2023.

We have a standby letter of credit with Bank of America for \$0.2 million in support of our customs and duties due on imported materials. The letter of credit is in effect until May 19, 2025. As of December 31, 2024, \$0.2 million was pledged as collateral for the letter of credit and recorded as restricted cash, current. There were no draws against the letter of credit during the year ended December 31, 2024.

On September 21, 2023, we entered into a Common Stock and Warrant Purchase Agreement with Honeywell Ventures pursuant to which, Honeywell Ventures invested \$27.5 million in the Company and the Company issued 1,099,450 shares of common stock and the Investment Warrant exercisable for up to 708,775 shares of Common Stock.

On November 1, 2024, we entered into a Credit Agreement with Export-Import Bank of the United States, as lender, and related agreements related to the financing of two production lines (the "Credit Agreement"). The Credit Agreement provides for a secured loan facility in an aggregate principal amount of up to \$22.7 million, of which \$20.0 million is available to be borrowed for equipment financing and the balance will be used to finance an exposure fee and transaction expenses. The loan facility has a maturity date of June 30, 2031. Half of the proceeds of the loan facility may be used on a retroactive basis for the financing of the Company's existing automated battery assembly line and the remainder may be used for the financing or refinancing of an additional line upon the closing of an equity raise milestone. At December 31, 2024, we had no outstanding borrowings under the Credit Agreement. See Note 10, *Commitments and Contingencies*, to our financial statements for the year ended December 31, 2024 included elsewhere in this Annual Report on Form 10-K for further discussion.

We also maintain a shelf registration statement on Form S-3 pursuant to which we may, from time to time, sell up to an aggregate of \$300 million of our common stock, preferred stock, debt securities, depositary shares, warrants, subscription rights, purchase contracts, or units.

The following table summarizes cash flows from operating, investing and financing activities for the periods presented (in thousands):

	<b>Years Ended December 31,</b>	
	<b>2024</b>	<b>2023</b>
Net cash used in operating activities .....	\$ (72,219)	\$ (54,896)
Net cash provided by investing activities .....	64,757	15,071
Net cash provided by financing activities .....	174	25,653

***Cash flows from operating activities:***

Cash flows used in operating activities to date have primarily consisted inventory purchases and cost of revenue, costs related to research and development of our energy storage systems, building awareness of our products' capabilities and other general and administrative activities.

Net cash used in operating activities was \$72.2 million for the year ended December 31, 2024, which is comprised of net loss of \$86.2 million, adjusted for noncash interest income of \$2.4 million, partially offset by stock-based compensation of \$11.6 million, inventory write-downs and losses on noncancellable purchase commitments of \$4.9 million, and depreciation expense of \$4.7 million. Net changes in operating assets and liabilities used \$6.5 million of cash driven by inventory purchases, an increase in prepaid and other current assets, and decreases in accrued and other current liabilities,

operating lease liabilities, and deferred revenue, offset by increases in accounts payable and accrued product warranties and cash collections on accounts receivable.

Net cash used in operating activities was \$54.9 million for the year ended December 31, 2023, which is comprised of net loss of \$77.6 million, adjusted for noncash interest income of \$3.6 million and noncash changes in the fair value of warrant liabilities of \$2.3 million, partially offset by inventory write-downs and losses on noncancellable purchase commitments of \$11.9 million, stock-based compensation of \$10.6 million, and depreciation expense of \$6.5 million. Net changes in operating assets and liabilities used \$1.6 million of cash driven by cash collections on accounts receivable, an increase in prepaid expenses and other current assets, accrued product warranties and deferred revenue, partially offset by inventory purchases and decreases in accrued and other current liabilities, accounts payable and operating lease liabilities.

***Cash flows from investing activities:***

Our cash flows from investing activities have been comprised primarily of purchases and sales of short-term investments and purchases of property and equipment.

Net cash provided by investing activities was \$64.8 million for the year ended December 31, 2024, which related to maturities of short-term investments partially offset by purchases of property and equipment.

Net cash provided by investing activities was \$15.1 million for the year ended December 31, 2023, which related to maturities of short-term investments partially offset by purchases of property and equipment.

***Cash flows from financing activities:***

Cash flows from financing activities to date have consisted of the Business Combination, our partnership with Honeywell, and the issuance of debt and equity securities and loan agreements.

Net cash provided by financing activities was \$0.2 million for the year ended December 31, 2024 and consisted of proceeds from contributions to our ESPP of \$0.4 million and stock options exercised of \$86 thousand, partially offset by repurchases of shares from employees for income tax withholding purposes of \$0.3 million.

Net cash provided by financing activities was \$25.7 million for the year ended December 31, 2023 and consisted of \$27.1 million of proceeds from the issuance of common stock and common stock warrants, net of issuance costs, proceeds from contributions to our ESPP of \$0.5 million and stock options exercised of \$0.2 million, partially offset by principal payments on notes payable of \$1.7 million and repurchases of shares from employees for income tax withholding purposes of \$0.3 million.

Further commercialization, development, and expansion of our business will require a significant amount of cash for expenditures. Our ability to successfully manage this growth will depend on many factors, including our working capital needs, the availability of equity or debt financing and, over time, our ability to generate cash flows from operations.

**Contractual Obligations and Commitments**

Our contractual obligations and other commitments as of December 31, 2024 consist of lease commitments and three standby letters of credit and the Credit Agreement. The letters of credit serve as security for certain operating leases for office and manufacturing space, for our performance and payment obligations under a customer agreement, and in support of our customs and duties due on imported materials. The letter of credit related to operating leases is fully secured by restricted certificate of deposit accounts. The letters of credit related to a customer contract and to support customs and duties due on imported materials are secured by a total of \$0.8 million pledged as collateral. Our obligations under the Credit Agreement are secured pursuant to a security agreement granting EXIM a first priority security interest in the financed equipment and a securities account containing collateral consisting of cash and cash equivalents in an amount equal to a certain portion of the disbursements under the Credit Agreement that decreases upon the equity raise milestone and will be reported as restricted cash. There were no draws against the letters of credit or under the Credit Agreement during the years ended December 31, 2024 and 2023. Additionally, we are committed to non-cancellable purchase commitments of \$0.2 million as of December 31, 2024 and to reimburse UOP a minimum of \$8.0 million for research and development expenses incurred through December 31, 2028 under the JDA (as defined herein).

**Off-Balance Sheet Arrangements**

We are not a party to any off-balance sheet arrangements, including guarantee contracts, retained or contingent interests, or unconsolidated variable interest entities that either have, or are reasonably likely to have, a current or future material effect on our financial statements.

## **Critical Accounting Policies and Estimates**

The preparation of financial statements in conformity with U.S. GAAP requires that management apply accounting policies and make estimates and assumptions that affect amounts reported in the statements. The following accounting policies represent those that management believes are particularly important to the financial statements and that require the use of estimates, assumptions, and judgments to determine matters that are inherently uncertain.

### ***Inventory Valuation***

Inventory is stated on a first-in, first-out basis at the lower of cost or net realizable value. Net realizable value is the estimated selling price of inventory in the ordinary course of business, less estimated costs of completion, disposal, and transportation. We periodically make judgments and estimates regarding the future utility and carrying value of inventory. When inventory is adjusted to its net realizable value, a new cost basis is established and such cost is not adjusted for any potential recovery or increase in cost. Obsolete inventories are written off to cost of revenue. Should our estimates of future selling prices or production costs change, additional and potentially material write-downs may be required. A small change in our estimates may result in a material charge to our reported financial results.

### ***Revenue Recognition***

Revenue is earned from the sales of energy storage systems and related services and is derived from customer contracts. Revenue is recognized in an amount that reflects the consideration to which we expect to be entitled in exchange for transferring the promised goods and/or services to the customer, when or as our performance obligations are satisfied which includes estimates for variable consideration (e.g., liquidated damages). For sales of energy storage systems, our performance obligations are satisfied at the point in time when the customer obtains control of the system. Payment terms generally include advance payments to reserve capacity and/or material procurement or commence upon issuance of the customer's purchase order with the remainder due upon the achievement of various milestones including shipment readiness, delivery, system start up, and/or completion of final site testing.

The transaction price of the underlying customer agreement is allocated to each performance obligation based on its relative standalone selling price. When the standalone selling price is not directly observable, revenue is determined based on an estimate of selling price using the observable market price that the good or service sells for separately in similar circumstances and to similar customers, and/or an expected cost plus margin approach when the observable selling price of a good or services is not known and is either highly variable or uncertain.

### ***Product Warranties***

We generally provide a standard warranty for a period of one year and an optional extended warranty. The standard warranty is accounted for as an assurance-type warranty, which provides customers with assurance that the product complies with agreed-upon specifications and does not represent a separate performance obligation. The extended warranty is considered a distinct service and is accounted for as a performance obligation where a portion of the transaction price is allocated to that performance obligation.

We accrue an estimate of warranty costs at the time of recording the revenue for a unit. Warranty accruals include management's best estimate of the projected costs to repair or replace any items under warranty, which is based on various factors including actual claim data to date.

Initial warranty data is limited at the early stage in the commercialization of our products. Thus, it is likely that as we sell additional energy storage systems, we will acquire additional information on the components requiring repair or replacement as well as the projected costs to repair or replace items under warranty which may result in a material difference between our estimated costs and our actual costs. We review our warranty accrual at least quarterly and adjust our estimates as needed to ensure our accruals are adequate to meet expected future warranty obligations. Adjustments to warranty accruals are recorded to cost of revenue.

### ***Recently Issued Accounting Standards***

See Note 2, *Significant Accounting Policies* to our financial statements for the year ended December 31, 2024 included elsewhere in this Annual Report on Form 10-K.

## **Emerging Growth Company Status**

We are an "emerging growth company" as defined in Section 2(a) of the Securities Act and have elected to take advantage of the benefits of the extended transition period for new or revised financial accounting standards. We expect to continue to take advantage of the benefits of the extended transition period until the end of fiscal year 2025, although we may decide to early adopt new or revised accounting standards to the extent permitted by such standards. This may make it difficult or impossible to compare our financial results with the financial results of another public company that is either not an

emerging growth company or is an emerging growth company that has chosen not to take advantage of the extended transition period exemptions because of the potential differences in accounting standards used.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information otherwise reported under this Item.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The following financial statements and report are included in Item 8:

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**REPORT OF KPMG LLP  
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Stockholders and the Board of Directors  
ESS Tech, Inc.:

**Opinion on the Financial Statements**

We have audited the accompanying balance sheets of ESS Tech, Inc. (the Company) as of December 31, 2024 and 2023, the related statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2024, and the related notes (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2024, in conformity with U.S. generally accepted accounting principles.

**Going Concern**

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has recurring net losses from operations and is generating negative cash flows from operating activities which raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

**Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2023.

Portland, Oregon

March 31, 2025

**ESS Tech, Inc.**  
**Balance Sheets**  
(in thousands, except share data)

	<b>December 31, 2024</b>	<b>December 31, 2023</b>
<b>Assets</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 13,341	\$ 20,165
Restricted cash, current	906	1,373
Accounts receivable, net	215	1,990
Short-term investments	18,263	87,899
Inventory	5,641	3,366
Prepaid expenses and other current assets	4,998	3,305
<b>Total current assets</b>	<b>43,364</b>	<b>118,098</b>
Property and equipment, net	20,582	16,266
Intangible assets, net	4,656	4,923
Operating lease right-of-use assets	1,503	2,167
Restricted cash, non-current	948	945
Other non-current assets	760	833
<b>Total assets</b>	<b>\$ 71,813</b>	<b>\$ 143,232</b>
<b>Liabilities and stockholders' equity</b>		
<b>Current liabilities:</b>		
Accounts payable	\$ 8,070	\$ 2,755
Accrued and other current liabilities	9,315	10,755
Accrued product warranties	3,288	2,129
Operating lease liabilities, current	1,692	1,581
Deferred revenue, current	5,237	2,546
<b>Total current liabilities</b>	<b>27,602</b>	<b>19,766</b>
Operating lease liabilities, non-current	—	957
Deferred revenue, non-current	—	3,835
Deferred revenue, non-current - related parties	14,400	14,400
Common stock warrant liabilities	802	917
Other non-current liabilities	125	—
<b>Total liabilities</b>	<b>42,929</b>	<b>39,875</b>
<b>Commitments and contingencies (Note 10)</b>		
<b>Stockholders' equity:</b>		
Preferred stock (\$0.0001 par value; 200,000,000 shares authorized, none issued and outstanding as of December 31, 2024 and 2023)	—	—
Common stock (\$0.0001 par value; 1,000,000,000 shares authorized, 11,986,516 and 11,614,127 shares issued and outstanding as of December 31, 2024 and 2023, respectively)	1	1
Additional paid-in capital	811,262	799,513
Accumulated deficit	(782,379)	(696,157)
<b>Total stockholders' equity</b>	<b>28,884</b>	<b>103,357</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 71,813</b>	<b>\$ 143,232</b>

*See accompanying notes to financial statements*

**ESS Tech, Inc.**  
**Statements of Operations and Comprehensive Loss**  
(in thousands, except share and per share data)

	<b>Years Ended December 31,</b>	
	<b>2024</b>	<b>2023</b>
<b>Revenue:</b>		
Revenue	\$ 5,712	\$ 7,537
Revenue - related parties	583	3
Total revenue	6,295	7,540
<b>Cost of revenue</b>	<b>51,653</b>	<b>20,495</b>
<b>Gross profit (loss)</b>	<b>(45,358)</b>	<b>(12,955)</b>
<b>Operating expenses</b>		
Research and development	11,772	42,632
Sales and marketing	9,161	7,744
General and administrative	23,507	22,574
Total operating expenses	44,440	72,950
Loss from operations	(89,798)	(85,905)
<b>Other income, net</b>		
Interest income, net	3,574	5,262
Gain on revaluation of common stock warrant liabilities	115	2,292
Other income (expense), net	(113)	773
Total other income, net	3,576	8,327
<b>Net loss and comprehensive loss to common stockholders</b>	<b>\$ (86,222)</b>	<b>\$ (77,578)</b>
<b>Net loss per share - basic and diluted</b>	<b>\$ (7.32)</b>	<b>\$ (7.27)</b>
<b>Weighted average shares used in per share calculation - basic and diluted</b>	<b>11,773,596</b>	<b>10,663,909</b>

*See accompanying notes to financial statements*

**ESS Tech, Inc.**  
**Statements of Stockholders' Equity**  
(in thousands, except share data)

	Common Stock		Additional	Accumulated	Total
	Shares	Amount	Paid-In	Deficit	Stockholders'
			Capital		Equity
<b>Balance as of December 31, 2022</b>	10,254,755	\$ 1	\$ 755,552	\$ (618,579)	\$ 136,974
Issuance of common stock under stock-based compensation plans, net of stock withheld for taxes	259,922	—	468	—	468
Stock-based compensation expense	—	—	10,635	—	10,635
Issuance of common stock and common stock warrants, net of issuance costs of \$368 thousand	1,099,450	—	32,858	—	32,858
Net loss	—	—	—	(77,578)	(77,578)
<b>Balance as of December 31, 2023</b>	11,614,127	\$ 1	\$ 799,513	\$ (696,157)	\$ 103,357
Issuance of common stock under stock-based compensation plans, net of stock withheld for taxes	372,389	—	174	—	174
Stock-based compensation expense	—	—	11,575	—	11,575
Net loss	—	—	—	(86,222)	(86,222)
<b>Balance as of December 31, 2024</b>	<u>11,986,516</u>	<u>\$ 1</u>	<u>\$ 811,262</u>	<u>\$ (782,379)</u>	<u>\$ 28,884</u>

*See accompanying notes to financial statements*

**ESS Tech, Inc.**  
**Statements of Cash Flows**  
(in thousands)

	<b>Years Ended December 31,</b>	
	<b>2024</b>	<b>2023</b>
<b>Cash flows from operating activities:</b>		
Net loss	\$ (86,222)	\$ (77,578)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	4,724	6,513
Non-cash interest income	(2,422)	(3,635)
Non-cash lease expense	1,350	1,234
Stock-based compensation expense	11,575	10,635
Inventory write-down and losses on noncancellable purchase commitments	4,904	11,932
Change in fair value of common stock warrant liabilities	(115)	(2,292)
Other non-cash (income) expenses, net	459	(60)
Changes in operating assets and liabilities:		
Accounts receivable, net	1,549	3,633
Inventory	(8,634)	(14,661)
Prepaid expenses and other assets	(1,620)	2,422
Accounts payable	4,243	(229)
Accrued and other liabilities	(719)	(3,378)
Accrued product warranties	1,159	486
Deferred revenue	(918)	11,500
Operating lease liabilities	(1,532)	(1,418)
<b>Net cash used in operating activities</b>	<b>(72,219)</b>	<b>(54,896)</b>
<b>Cash flows from investing activities:</b>		
Purchases of property and equipment	(7,294)	(5,790)
Maturities and purchases of short-term investments, net	72,051	20,861
<b>Net cash provided by investing activities</b>	<b>64,757</b>	<b>15,071</b>
<b>Cash flows from financing activities:</b>		
Proceeds from issuance of common stock and common stock warrants, net of issuance costs	—	27,132
Payments on notes payable	—	(1,733)
Proceeds from stock options exercised	86	237
Repurchase of shares from employees for income tax withholding purposes	(297)	(310)
Proceeds from contributions to Employee Stock Purchase Plan	385	541
Other, net	—	(214)
<b>Net cash provided by financing activities</b>	<b>174</b>	<b>25,653</b>
<b>Net change in cash, cash equivalents and restricted cash</b>	<b>(7,288)</b>	<b>(14,172)</b>
<b>Cash, cash equivalents and restricted cash, beginning of period</b>	<b>22,483</b>	<b>36,655</b>
<b>Cash, cash equivalents and restricted cash, end of period</b>	<b>\$ 15,195</b>	<b>\$ 22,483</b>

*See accompanying notes to financial statements*



**ESS Tech, Inc.**  
**Statements of Cash Flows (continued)**  
**(in thousands)**

	<b>Years Ended December 31,</b>	
	<b>2024</b>	<b>2023</b>
<b>Supplemental disclosures of cash flow information:</b>		
Cash paid for operating leases included in cash used in operating activities	\$ 1,738	\$ 1,670
Non-cash investing and financing transactions:		
Common stock warrants issued for the acquisition of intangible assets	—	4,990
Purchase of property and equipment included in accounts payable and accrued and other current liabilities	1,586	704
Adjustment to right-of-use assets from lease modification	686	—
Transfers between inventory and property and equipment, net	1,051	—
Cash and cash equivalents	\$ 13,341	\$ 20,165
Restricted cash, current	906	1,373
Restricted cash, non-current	948	945
Total cash, cash equivalents and restricted cash shown in the statements of cash flows	<u>\$ 15,195</u>	<u>\$ 22,483</u>

*See accompanying notes to financial statements*

## ESS TECH, INC.

### NOTES TO FINANCIAL STATEMENTS

#### 1. DESCRIPTION OF BUSINESS, BASIS OF PRESENTATION AND RISKS AND UNCERTAINTIES

**Description of Business**—ESS Tech, Inc. is a long-duration energy storage company specializing in iron flow battery technology. ESS develops long-duration iron flow batteries for commercial and utility-scale energy storage applications requiring up to twelve hours of flexible energy capacity predominantly using earth-abundant materials. The Company historically had been in the research and development phase. On a quarterly basis the Company had evaluated a combination of evidence including production quality metrics, field functionality to date, revenue trends, and existing contracts with customers. Based on the evaluation performed during the third quarter of 2023, the Company transitioned out of the research and development phase and into commercial inventory accounting as of July 1, 2023.

The Company was founded in 2011 and became a publicly traded company through a business combination with a special purpose acquisition company named ACON S2 Acquisition Corp. which changed its name to ESS Tech, Inc. upon closing. As a result of the Business Combination, Legacy ESS survived and became a wholly owned subsidiary of ESS Tech, Inc. On March 31, 2024, Legacy ESS merged with ESS Tech, Inc. leaving ESS Tech, Inc. as the sole remaining legal entity. As of April 1, 2024, the Company does not have any subsidiaries.

**Basis of Presentation**—The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”).

**Risks and Uncertainties**—The Company is subject to a number of risks associated with companies of similar size in its industry, including, but not limited to, the need for successful development of products, the need for additional capital and financing to fund operations, competition from substitute products and services from larger companies, legal protection of proprietary technology, patent litigation, dependence on key individuals, and risks associated with changes in information technology.

**Concentration of Credit Risk**—Financial instruments that potentially subject the Company to concentration of credit risk consist of cash and cash equivalents and restricted cash. The Company’s cash and cash equivalents include cash in bank accounts, money market funds, and investments with a maturity of three months or less at the date of purchase. The Company’s restricted cash includes a certificate of deposit, collateral associated with a standby letter of credit, and a performance and payment bond. Deposits held with banks may exceed the amount of insurance provided on such deposits.

**Liquidity and Capital Resources**—The Company has incurred operating losses and cash outflows from operations since inception and the Company anticipates that losses will continue in the near term. During the year ended December 31, 2024, the Company incurred net losses of \$86.2 million and used \$72.2 million of cash in operating activities. As of December 31, 2024, the Company had unrestricted cash and cash equivalents of \$13.3 million and short-term investments of \$18.3 million, or total liquid assets of \$31.6 million.

The continuation of the Company as a going concern is dependent upon generating profit from its operations and its ability to obtain additional debt or equity financing. Management is evaluating various strategies to obtain additional funding, which may include additional offerings of equity, issuance of debt, or other capital sources. There is no assurance that the Company will be able to generate sufficient profits, obtain such financings, or obtain them on favorable terms. Any such financing activities are subject to market conditions, and accordingly involves factors that are outside the Company’s control. These uncertainties cause substantial doubt to exist as to the Company’s ability to continue as a going concern for 12 months from the issuance of these financial statements. The accompanying financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The financial statements do not reflect any adjustments that might result from the outcome of this uncertainty.

#### 2. SIGNIFICANT ACCOUNTING POLICIES

**Transition to Commercial Inventory Accounting**—As of July 1, 2023, the Company transitioned out of the research and development phase and into commercial inventory accounting on the Transition Date. As a result of the transition, all inventoriable costs incurred are capitalized, net of any LCNRV charges, which are recognized as cost of revenue. Further, unfulfilled noncancellable purchase commitments are recognized as expense for estimated losses in cost of

revenue and warranty and fulfillment costs are recorded as a component of cost of revenue rather than research and development expense beginning on the Transition Date.

**Use of Estimates**—The preparation of the financial statements in conformity with U.S. GAAP requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosure of commitments and contingencies as of the date of the financial statements and the reported amounts of expenses during the reporting periods. Such estimates relate to, but are not limited to, inventory valuation, product warranty liabilities, standalone selling prices, the fair value of the Company's investments and warrant liabilities, the useful lives and assessment of recoverability of property and equipment, deferred tax assets valuation, as well as other accruals. These estimates are based on historical trends, market pricing, current events and other relevant assumptions and data points. Actual results could differ from those estimates and such differences may be material to the financial statements.

**Reclassifications**—Certain prior year amounts have been reclassified to conform with current year presentation. These reclassifications had no effect on the reported results of operations.

**Cash and Cash Equivalents**—Cash and cash equivalents include cash in bank accounts, money market funds, and investments with a maturity of three months or less at the date of purchase. Cash equivalents are recorded at carrying value, which approximates fair value.

**Restricted Cash**—Restricted cash is required as collateral for certain of the Company's lease agreements and contractual supply and service arrangements. Restricted cash includes a certificate of deposit for the Company's lease agreements, collateral associated with a standby letter of credit issued to a customer, collateral associated with customs and duties due on imported materials, collateral associated with credit cards, and a performance and payment bond for the Company's supply and service arrangements. The certificate of deposit and bond are recorded at carrying value, which approximates fair value. Restricted cash amounts are reported in the balance sheets as current or non-current depending on when the cash will be contractually released.

**Accounts Receivable, Net**—The Company evaluates the creditworthiness of its customers. If the collection of any specific receivable is doubtful, an allowance is recorded in the allowance for expected credit losses which is included in accounts receivable, net in the balance sheets. The Company had no allowance for expected credit losses recorded at either December 31, 2024 or 2023.

**Inventory**—Inventory consists of raw materials, work in progress, and finished goods, and is stated on a first-in, first-out basis at the lower of cost or net realizable value. Net realizable value is the estimated selling price of inventory in the ordinary course of business, less estimated costs of completion, disposal, and transportation. The Company periodically makes judgments and estimates regarding the future utility and carrying value of inventory. When inventory is adjusted to its net realizable value, a new cost basis is established and such cost is not adjusted for any potential recovery. Obsolete inventories are written off to cost of revenue. Should the Company's estimates of future selling prices or production costs change, additional and potentially material write-downs may be required. A small change in the Company's estimates may result in a material charge to its reported financial results.

**Property and Equipment, Net**—Property and equipment are stated at cost, net of depreciation. Depreciation is provided using the straight-line method over the estimated useful lives of the assets, which range from three to seven years. Leasehold improvements are amortized over the lesser of the estimated useful lives of the assets or the remaining lease term. Expenditures for maintenance and repairs are expensed in the statements of operations and comprehensive loss as incurred. Expenditures which materially change capacities, or extend useful lives are capitalized. When assets are retired or disposed of, the cost and accumulated depreciation are removed from the accounts, and any resulting gains or losses are recognized in other income (expense), net in the statements of operations and comprehensive loss.

The Company evaluates the recoverability of property and equipment for possible impairment whenever events or circumstances indicate that the carrying amount of such assets may not be recoverable. The Company assesses the alternative use of an asset, the condition of the asset and the current market demand to determine if an asset is impaired. No impairment loss was recognized during the years ended December 31, 2024 and 2023.

**Intangible Assets, Net**—Intangible assets are stated at cost, net of accumulated amortization. Intangible assets are amortized on a straight-line basis over their expected useful lives.

**Investments**—Investments consist primarily of U.S. Treasury securities, U.S. agency securities, corporate debt securities, and commercial paper and are classified as trading securities as they are bought and held principally for the purpose of selling them in the near term. Trading securities are carried on the balance sheets at fair value. Unrealized

gains and losses on trading securities are included in other income (expense), net in the statements of operations and comprehensive loss.

**Revenue Recognition**—Revenue is primarily earned from the sale, installation and commissioning of energy storage systems and is derived from customer contracts. Revenue is recognized in an amount that reflects the consideration to which the Company expects to be entitled in exchange for transferring the promised goods and/or services to the customer, when or as the Company's performance obligations are satisfied, which includes estimates for variable consideration (e.g., liquidated damages). For product sales of energy storage systems, the Company's performance obligations are satisfied at the point in time when the customer obtains control of the system, based primarily on shipping terms within individual customer contracts. No right of return exists on sales of energy storage systems.

Performance obligations for services, including engineering services related to product site deployment, the optional extended warranty and ongoing operations and maintenance program provided to customers, are satisfied over time as the respective services are performed. Product site deployment revenue is recognized using the input method, which is based on the Company's estimated costs incurred compared to total costs to complete the project.

The transaction price of the underlying customer agreement is allocated to each performance obligation based on its relative standalone selling price. When the standalone selling price is not directly observable, revenue is determined based on an estimate of selling price using the observable market price that the good or service sells for separately in similar circumstances and to similar customers, and/or an expected cost plus margin approach when the observable selling price of a good or services is not known and is either highly variable or uncertain.

The Company invoices customers in accordance with customer agreements, which in certain circumstances may be in advance of recognizing revenue if the Company has not satisfied the associated performance obligations. Payment terms generally include advance payments to reserve capacity and/or procure materials or upon issuance of the customer's purchase order with the remainder due upon the achievement of various milestones including but not limited to shipment readiness, delivery, system start up, and/or completion of final site testing. Advanced customer payments and unsatisfied performance obligations are recognized as deferred revenue in the balance sheets.

Sales tax collected from customers is recorded on a net basis and therefore, not included in revenue. Sales tax is recorded as a liability until remitted to governmental authorities. Shipping and handling, freight costs and other reimbursable costs are accounted for as fulfillment activities and included in revenue.

**Cost of Revenue**—As of the Transition Date, cost of revenue includes the cost of the energy storage systems delivered, installed and commissioned during the year. It includes direct and indirect materials, labor costs, manufacturing overhead, including depreciation costs of tooling and machinery, adjustments to warranty expense, LCNRV charges, unfulfilled noncancellable purchase commitment expense, shipping and logistics costs, and provisions for excess and obsolete inventory. Additionally, cost of revenue benefits from production credits earned.

**Product Warranties**—Warranty obligations are incurred in connection with the sale of the Company's products. The Company generally provides a standard warranty for a period of one year and an optional extended warranty. The standard warranty is accounted for as an assurance-type warranty, which provides customers with assurance that the product complies with agreed-upon specifications and does not represent a separate performance obligation. The extended warranty is considered a service-type warranty which is a distinct service and a portion of the transaction price is allocated to that performance obligation.

Costs to provide for standard warranty obligations are estimated and recorded as a liability at the time revenue is recognized on the sale of the energy storage system. Warranty reserves include management's best estimate of the projected costs to repair or to replace any items under warranty, which is based on various factors, including the use of actual claim data to date. Initial accruals and adjustments to warranty reserves were recorded to research and development expenses when the Company was in the research and development phase and are now recorded to cost of revenue following the transition to commercial inventory accounting as of the Transition Date.

**Sales and Marketing**—Sales and marketing expenses consist primarily of salaries, benefits and stock-based compensation for marketing and sales personnel and related support teams. To a lesser extent, sales and marketing expenses also include professional services costs, travel costs, and trade show sponsorships and participation. Advertising costs are expensed as incurred.

**Research and Development**—Research and development costs are expensed as incurred and, as of the Transition Date, consist of materials, supplies, personnel-related expenses, allocated facilities costs, consulting services and other direct expenses. Personnel-related expenses consist of salaries, benefits and stock-based compensation. Substantially all of the Company's research and development expenses are related to improving existing products and developing new products and related technologies. Prior to the Transition Date, research and development costs also included

direct product development material costs, including freight charges, and product development personnel-related expenses, warranty-related costs, depreciation charges, overhead related costs, consulting services, and other direct expenses.

**General and Administrative**—General and administrative expenses consist of personnel-related expenses for the Company’s corporate, executive, finance, legal, and other administrative functions, as well as expenses for outside professional services and insurance costs. Personnel-related expenses consist of salaries, benefits and stock-based compensation. To a lesser extent, general and administrative expenses include depreciation and other allocated costs, such as facility-related expenses and supplies.

**Stock-Based Compensation**—The Company measures and recognizes compensation expense for all stock-based awards based on estimated fair values on the date of the grant, recognized over the requisite service period. For awards that vest solely based on a service condition, the Company recognizes stock-based compensation expense on a straight-line basis over the requisite service period. The compensation expense related to stock-based awards with performance conditions is recognized over the requisite service period when achievement of the performance conditions is probable. The compensation expense related to stock-based awards with market conditions is recognized on an accelerated attribution basis over the requisite service period identified as the derived service period over which the market conditions are expected to be achieved, and is not reversed if the market condition is not satisfied. The Company accounts for forfeitures as they occur. Stock-based awards granted to employees are primarily stock options and restricted stock units (“RSUs”).

The fair value of each stock option granted is estimated using the Black-Scholes Merton option-pricing model using the single-option award approach. The following assumptions are used in the Black-Scholes Merton option-pricing model:

*Risk-Free Interest Rate*—The risk-free interest rate is based on the implied yield available on the date of grant on U.S. Treasury zero-coupon bonds issued with a term that is equal to the option’s expected term at the grant date.

*Expected Volatility*—The Company estimates the volatility for option grants by evaluating the average historical volatility of the company’s stock price for the period immediately preceding the option grant for a term that is approximately equal to the option’s expected term.

*Expected Term*—The expected term for employees represents the period over which options granted are expected to be outstanding using the simplified method, as the Company’s historical share option exercise experience does not provide a reasonable basis upon which to estimate the expected term. The simplified method deems the term to be the average of the time-to-vesting and contractual life of the stock-based awards.

*Dividend Yield*—The Company has not declared or paid dividends to date and does not anticipate declaring dividends. As such, the dividend yield has been estimated to be zero.

**Income Taxes**—The Company accounts for income taxes under the asset and liability method. Under this method, deferred taxes are determined based on the temporary differences between the financial statement and tax bases of assets and liabilities using tax rates expected to be in effect during the years in which the bases differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the statement of operations and comprehensive loss in the period that includes the enactment date.

ASC 740, *Accounting for Income Taxes* (“ASC 740”), requires that the tax benefit of net operating losses, temporary differences and credit carryforwards be recorded as an asset to the extent that management assesses that realization is “more likely than not.” Realization of the future tax benefits is dependent on the Company’s ability to generate sufficient taxable income within the carryforward period. Because of the Company’s history of operating losses, management believes that recognition of the deferred tax assets arising from the above-mentioned future tax benefits is currently not likely and, accordingly, has provided a full valuation allowance for these tax benefits for the years ended December 31, 2024 and 2023.

The Company recognizes accrued interest and penalties related to unrecognized tax benefits as a component of income tax expense. No amounts were accrued for the payment of interest and penalties as of December 31, 2024 and 2023. The Company is currently not aware of any issues under review that could result in significant payments, accruals, or material deviation from its position.

**Net Loss Per Share**—The Company will use the two-class method when computing net loss per common share when shares are issued that meet the definition of participating securities. Under this method, net earnings are reduced by the amount of dividends declared in the current period for common stockholders and participating security holders. The remaining earnings or “undistributed earnings” are allocated between common stock and participating securities to the extent that each security may share in earnings as if all the earnings for the period had been distributed. Once



calculated, the earnings per common share is computed by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding during each year presented. Diluted loss attributable to common stockholders per common share has been computed by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding plus the dilutive effect of outstanding options, warrants, and RSUs during the respective periods. In cases where the Company has a net loss, no dilutive effect is shown as options, warrants, and RSUs become anti-dilutive.

**Fair Value**—The Company follows ASC 820, *Fair Value Measurements* (“ASC 820”), which establishes a common definition of fair value to be applied when U.S. GAAP requires the use of fair value, establishes a framework for measuring fair value, and requires certain disclosures about such fair value measurements.

ASC 820 establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company’s assumptions about what market participants would use in pricing the asset or liability based on the best information available in the circumstances. The hierarchy is broken down into three levels based on the reliability of inputs as follows:

*Level 1:* Observable inputs such as quoted prices in active markets for identical assets or liabilities to which the Company has access at a measurement date.

*Level 2:* Observable inputs other than Level 1 quoted prices that are observable for the asset or liability, either directly or indirectly; these include quoted prices for similar assets or liabilities in an active market, quoted prices for identical assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

*Level 3:* Unobservable inputs for which little or no market data exists and for which the Company must develop its own assumptions regarding the assumptions that market participants would use in pricing the asset or liability, including assumptions regarding risk.

Because of the uncertainties inherent in the valuation of assets or liabilities for which there are no observable inputs, those estimated fair values may differ significantly from the values that may have been used had a ready market for the assets or liabilities existed.

**Reverse Stock Split**—On August 23, 2024, the Company filed a certificate of amendment to the Company’s Certificate of Incorporation with the Secretary of State of the State of Delaware to effect a reverse stock split of all shares of the Company’s common stock that were issued and outstanding at a ratio of 1-for-15 (the “Reverse Stock Split”) and reduce the total number of authorized shares of common stock from 2,000,000,000 to 1,000,000,000. The amendment became effective as of 4:01 p.m., Eastern Time, on August 23, 2024. The par value of the Company’s common stock remained unchanged at \$0.0001 per share. Proportionate adjustments were made to the number of shares issuable upon the exercise or vesting of all warrants, RSUs and options outstanding at the effective time of the Reverse Stock Split, as well as to their corresponding exercise prices. All share-based amounts, including warrants, RSUs and options, herein are reported on a retroactively adjusted basis.

**Emerging Growth Company**—Pursuant to the JOBS Act of 2012, Section 102(b)(1), an emerging growth company is provided the option to adopt new or revised accounting standards that may be issued by the FASB or the SEC either (i) within the same periods as those otherwise applicable to non-emerging growth companies or (ii) within the same time periods as private companies. The Company has elected to use the extended transition period for complying with any new or revised financial accounting standards. As a result, the Company’s financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective date for new or revised accounting standards that are applicable to public companies. The Company also intends to continue to take advantage of some of the reduced regulatory and reporting requirements of emerging growth companies pursuant to the JOBS Act so long as the Company qualifies as an emerging growth company.

**Recent Accounting Pronouncements—Not Yet Adopted**—In December 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which improves the transparency of income tax disclosures by requiring consistent categories and greater disaggregation of information in the effective tax rate reconciliation and income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. This new standard will be effective for the annual periods beginning the year ended December 31, 2025. The new standard permits early adoption and can be applied prospectively or retrospectively. We do not expect the adoption of this guidance to have a material impact on our financial statements.

In November 2024, the FASB issued ASU No. 2024-03, *Income Statement-Reporting Comprehensive Income (Topic 220): Expense Disaggregation Disclosures*. The ASU requires entities to disaggregate operating expenses into specific categories within the notes to the financial statements to provide enhanced transparency. The ASU will be effective for fiscal years beginning after December 15, 2026, with early adoption permitted, and may be applied retrospectively or prospectively. The Company is currently evaluating the effect of this new standard on the Company's disclosures.

**Recently Adopted Accounting Pronouncements**— In November 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* (“ASU 2023-07”), requiring public entities to disclose information about their reportable segments’ significant expenses and other segment items on an interim and annual basis. Public entities with a single reportable segment are required to apply the disclosure requirements in ASU 2023-07, as well as all existing segment disclosures in ASC 280 on an interim and annual basis. The Company adopted ASU 2023-07 during the year ended December 31, 2024. See Note 20, *Segment and Other Information*, in the accompanying notes to the financial statements for further detail.

### 3. INVENTORY

Inventory consists of the following (in thousands):

	December 31, 2024	December 31, 2023
Raw materials	\$ 12,084	\$ 7,740
Work in process	4,521	1,236
Finished goods	5,639	5,685
Inventory, gross	\$ 22,244	\$ 14,661
Net realizable value adjustment	(16,603)	(11,295)
Inventory	<u>\$ 5,641</u>	<u>\$ 3,366</u>

The balance of the Company’s inventory was written down by \$16.6 million and \$11.3 million from its cost to its net realizable value as of December 31, 2024 and 2023, respectively. Additionally, the Company has LCNRV losses related to noncancellable purchase commitments which were \$0.2 million and \$0.6 million as of December 31, 2024 and 2023, respectively. These LCNRV losses related to noncancellable purchase commitments are reflected in the materials and related purchases component of accrued and other liabilities on the balance sheets. For further details, refer to Note 10, *Commitments and Contingencies*.

### 4. PREPAID EXPENSES AND OTHER CURRENT ASSETS

Prepaid expenses and other current assets consist of the following (in thousands):

	December 31, 2024	December 31, 2023
Vendor advances	\$ 1,235	\$ 936
Grants receivable	1,870	824
Insurance	947	521
IT related	259	401
Contract assets	332	253
Other	355	370
Total prepaid expenses and other current assets	<u>\$ 4,998</u>	<u>\$ 3,305</u>

## 5. PROPERTY AND EQUIPMENT, NET

Property and equipment, net consists of the following (in thousands):

	December 31, 2024	December 31, 2023
Machinery and equipment	\$ 23,306	\$ 17,669
Leasehold improvements	6,234	3,232
Furniture and fixtures	231	184
Software	614	183
Construction in process	3,722	4,279
Total property and equipment	34,107	25,547
Less: accumulated depreciation	(13,525)	(9,281)
Total property and equipment, net	\$ 20,582	\$ 16,266

Depreciation expense related to property and equipment, net was \$4.5 million and \$6.4 million for the years ended December 31, 2024 and 2023, respectively.

## 6. INTANGIBLE ASSETS, NET

In September 2023, the Company acquired patent rights valued at \$5.0 million under a Patent License Agreement with UOP, an affiliate of Honeywell, a related party. These patent rights were recorded at fair value based on the value of the IP Warrants issued, as defined in Note 11, *Common Stock Warrants*, and are amortized over an average useful life of 19 years based on the remaining useful lives of the patents acquired. Amortization expense for the year ended December 31, 2024 and 2023 was \$0.3 million and \$67 thousand, respectively.

Intangible assets, net consisted of the following (in thousands):

	December 31, 2024			December 31, 2023		
	Cost	Accumulated Amortization	Net Carrying Amount	Cost	Accumulated Amortization	Net Carrying Amount
Patents	\$ 4,990	\$ (334)	\$ 4,656	\$ 4,990	\$ (67)	\$ 4,923

Estimated future amortization expense of intangible assets as of December 31, 2024 are as follows (in thousands):

	Intangible Assets
2025	267
2026	267
2027	267
2028	267
2029	267
Thereafter	3,321
Total future amortization	\$ 4,656

## 7. ACCRUED AND OTHER CURRENT LIABILITIES

Accrued and other current liabilities consist of the following (in thousands):

	December 31, 2024	December 31, 2023
Payroll and related benefits	\$ 4,351	\$ 5,681
Materials and related purchases	2,499	2,083
Professional and consulting fees	831	802
Amounts due to customers	—	545
Accrued capital purchases	320	327
Noncancellable purchase commitments	233	637
Environmental, Health & Safety compliance liability	702	—
Other	379	680
Total accrued and other current liabilities	\$ 9,315	\$ 10,755

## 8. ACCRUED PRODUCT WARRANTIES

The following table summarizes product warranty activity (in thousands):

	Year Ended December 31,	
	2024	2023
Accrued product warranties - beginning of period	\$ 2,129	\$ 1,643
Accruals for warranties issued	3,131	3,412
Repairs and replacements	(739)	(1,416)
Adjustments to existing accruals	(1,233)	(1,510)
Accrued product warranties - end of period	<u>\$ 3,288</u>	<u>\$ 2,129</u>

## 9. LEASES

The Company leases office and manufacturing space in Wilsonville, Oregon under operating leases. Each of the operating leases provides the Company an option to renew the lease for an additional 60 months which have not been included in the operating lease obligations.

The Company determines if an arrangement is a lease at inception and whether the arrangement is classified as an operating or finance lease. At commencement of the lease, the Company records a right-of-use ("ROU") asset and lease liability in the balance sheets based on the present value of lease payments over the term of the arrangement. ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. As the Company's leases do not provide an implicit rate, it uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The Company determines its incremental borrowing rate based on publicly available data for instruments with similar characteristics, including recently issued debt, as well as other factors. Contract terms may include options to extend or terminate the lease, and when the Company deems it reasonably certain that ESS will exercise that option it is included in the ROU asset and lease liability. Operating leases will reflect lease expense on a straight-line basis, while finance leases will result in the separate presentation of interest expense on the lease liability and amortization expense of the ROU asset.

ROU assets related to the Company's operating leases are included in operating lease ROU assets, while the corresponding lease liabilities are included in current and non-current operating lease liabilities on the Company's balance sheets. ROU assets related to the Company's finance leases are included in other non-current assets, while the corresponding lease liabilities are included in accrued and other current liabilities and other non-current liabilities on the Company's balance sheets.

The Company does not record leases with a term of 12-months or less in the balance sheets. Short-term lease costs were immaterial for the year ended December 31, 2024.

Operating lease expense for the years ended December 31, 2024 and 2023 was \$1.7 million and \$1.5 million, respectively. Finance lease costs for the years ended December 31, 2024 and 2023 were immaterial.

As of December 31, 2024, future maturities of lease liabilities are as follows (in thousands):

	Operating Leases
2025	1,785
Thereafter	—
Total minimum lease payments	\$ 1,785
Less: imputed interest	(93)
Present value of lease liabilities	<u>\$ 1,692</u>

Weighted-average remaining lease term and discount rate are as follows:

	December 31, 2024	December 31, 2023
Weighted-average remaining lease term (in years)	1.0	1.7
Weighted-average discount rate	9.9 %	7.5 %

## 10. COMMITMENTS AND CONTINGENCIES

### *Legal Proceedings*

The Company, from time to time, is a party to various claims, legal actions, and complaints arising in the ordinary course of business. The Company is not aware of any material legal proceedings or other claims, legal actions, or complaints through the date of issuance of these financial statements.

### *Letters of Credit*

The Company has a standby letter of credit with JP Morgan Chase for \$75 thousand as security for an operating lease of office and manufacturing space in Wilsonville, Oregon secured by a restricted certificate of deposit account totaling \$75 thousand. As of December 31, 2024 the certificate of deposit was recorded as restricted cash, non-current. There were no draws against the letter of credit during the years ended December 31, 2024 and 2023.

The Company has a standby letter of credit with Bank of America for \$0.6 million as security for the performance and payment of the Company's obligations under a customer agreement. The letter of credit is in effect until the date on which the warranty period under the agreement expires, which is anticipated to be more than a year from the balance sheet date. As of December 31, 2024, \$0.6 million was pledged as collateral for the letter of credit and recorded as restricted cash, non-current. There were no draws against the letter of credit during the year ended December 31, 2024.

The Company has a standby letter of credit with Bank of America for \$0.2 million in support of the Company's customs and duties due on imported materials. The letter of credit is in effect until May 19, 2025. As of December 31, 2024, \$0.2 million was pledged as collateral for the letter of credit and recorded as restricted cash, current. There were no draws against the letter of credit during the year ended December 31, 2024.

### *Credit Agreement*

On November 1, 2024, the Company entered into a Credit Agreement with Export-Import Bank of the United States, as lender, and related agreements related to the financing of two production lines. The Credit Agreement provides for a secured loan facility in an aggregate principal amount of up to \$22.7 million, of which \$20.0 million is available to be borrowed for equipment financing and the balance will be used to finance an exposure fee and transaction expenses. The loan facility has a maturity date of June 30, 2031. Half of the proceeds of the loan facility may be used on a retroactive basis for the financing of the Company's existing automated battery assembly line and the remainder may be used for the financing or refinancing of an additional line upon the closing of an equity raise milestone. As of December 31, 2024, the Company had no outstanding borrowings under the Credit Agreement.

### *Purchase Commitments*

The Company purchases materials from numerous suppliers and has entered into agreements with various contract manufacturers, which include cancellable and noncancellable purchase commitments. As of December 31, 2024 and 2023, total unfulfilled noncancellable purchase commitments were \$0.2 million and \$0.6 million, respectively. In addition, total unfulfilled cancellable purchase commitments amounted to \$6.0 million and \$7.7 million as of December 31, 2024, and 2023, respectively.

### *Joint Development Agreement*

In September 2023, the Company entered into a Joint Development Agreement ("JDA") with UOP, an affiliate of Honeywell, a related party, under which the parties agreed to work collaboratively to engage in certain research and development activities generally related to flow battery technology. Pursuant to the JDA, the Company agreed to reimburse UOP a minimum of \$8.0 million for research and development expenses incurred through December 31, 2028. No expenses were incurred under the JDA during the year ended December 31, 2024.

## 11. COMMON STOCK WARRANTS

The following table consists of the number of shares of common stock issuable upon exercise of the respective warrants as of the dates indicated:



	December 31, 2024	December 31, 2023
Public Warrants	764,081	764,081
SMUD Warrant	833	833
Honeywell Warrants:		
Investment Warrant	708,775	708,775
IP Warrant	417,997	417,997
Performance Warrants	51,717	51,717
Total common stock warrants	1,943,403	1,943,403

### **Public Warrants**

As part of STWO's initial public offering, 8,333,287 warrants to purchase common stock (the "Public Warrants") were sold. Simultaneously with STWO's initial public offering, STWO issued in a private placement 4,666,667 warrants to purchase common stock (the "Private Warrants") to STWO's sponsor. In connection with the Business Combination, STWO's sponsor agreed to forfeit 583,333 Private Warrants. Of the remaining 4,083,334 Private Warrants, 3,500,000 were immediately vested and 583,334 warrants (the "Earnout Warrants") were vested upon meeting certain earnout milestone events on November 9, 2021. The Private Warrants, including the Earnout Warrants, automatically converted on a 1:1 basis into Public Warrants upon the transfer of such warrants by the initial holder to a third party during the fourth quarter of 2023.

The Public Warrants are listed on the NYSE under the ticker symbol "GWH.W." Following the Reverse Stock Split, fifteen Public Warrants entitle the holder thereof to purchase one share of common stock at a price of \$172.50 per share, subject to adjustments. The Public Warrants may be exercised only for a whole number of shares of common stock. No fractional shares will be issued upon exercise of the warrants. The Public Warrants expire on October 8, 2026, five years after completion of the Business Combination, or earlier upon redemption or liquidation.

The Company may call the Public Warrants for redemption starting any time, in whole and not in part, at a price of \$0.01 per warrant, so long as the Company provides no less than 30 days prior written notice of redemption to each warrant holder, and if, and only if, the reported last sale price of common stock equals or exceeds \$270.00 per share for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date the Company sends the notice of redemption to the warrant holders provided there is an effective registration statement covering the shares of common stock issuable upon exercise of the warrants.

The Company may call the Public Warrants for redemption starting any time, in whole and not in part, at a price of \$0.10 per warrant, so long as the Company provides no less than 30 days prior written notice of redemption to each warrant holder; provided that holders will be able to exercise their warrants on a cashless basis prior to redemption and receive a number of shares determined based on the redemption date fair market value of the shares, and if, and only if, the reported last sale price of common stock equals or exceeds \$150.00 per share for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date the Company sends the notice of redemption to the warrant holders provided there is an effective registration statement covering the shares of common stock issuable upon exercise of the warrants.

The Company's common stock warrants were initially recorded at fair value upon completion of the Business Combination and are adjusted to fair value at each reporting date based on the market price of the Public Warrants, with the change in fair value recorded as a component of other income in the statements of operations and comprehensive loss. For the years ended December 31, 2024 and 2023, the Company recorded a net decrease to the liabilities for Public Warrants of \$0.1 million and \$2.3 million, respectively.

### **SMUD Warrant**

On September 16, 2022, the Company entered into a warrant agreement with SMUD, whereby the Company agreed to issue a warrant for up to 33,333 shares of the Company's common stock at an exercise price of \$64.44 per share. The vesting of the shares underlying the warrant will be subject to the achievement of certain commercial milestones through December 31, 2030 pursuant to a related commercial agreement. As of December 31, 2024 and 2023, 833 shares underlying the warrant were vested.

### **Honeywell Warrants**

On September 21, 2023, the Company entered the Purchase Agreement with Honeywell Ventures, an affiliate of Honeywell, a related party. Pursuant to the Purchase Agreement, Honeywell invested \$27.5 million in the Company

and the Company issued 1,099,450 shares of common stock and a warrant to issue up to 708,775 shares of common stock to Honeywell Ventures. Pursuant to the Purchase Agreement and also as further consideration for the licensing by UOP, an affiliate of Honeywell, of certain intellectual property to the Company, the Company issued a warrant to issue up to 417,997 shares of common stock to UOP, which UOP subsequently transferred to Honeywell Ventures. The Investment Warrant has an exercise price of \$28.35, and the IP Warrant has an exercise price of \$43.50. Each warrant will expire on September 21, 2028.

On September 21, 2023, the Company and UOP also entered into the Supply Agreement, pursuant to which UOP may purchase equipment supplied by the Company. Pursuant to the Supply Agreement, the Company agreed to issue additional warrants to purchase common stock to UOP, consisting of (i) an initial performance warrant to issue up to 51,717 shares of common stock, issued on September 21, 2023 in exchange for a prepayment of equipment by UOP in the amount of \$15 million, and (ii) additional performance warrants (not to exceed an aggregate value of \$15 million based on target purchase amounts of up to \$300 million by 2030) to be issued on an annual basis for the five-year period beginning in 2026, based on UOP's purchase of additional equipment after execution of the Supply Agreement. The initial Performance Warrant has an exercise price of \$21.75 and the additional Performance Warrants will have an exercise price equal to the volume-weighted average price of the Company's common stock for the last fifteen (15) trading days of the relevant calendar year for which such Performance Warrant is being issued. The initial Performance Warrant will expire on September 21, 2028 and each additional Performance Warrant will have a five-year term from its respective date of issuance.

The table below summarizes the common stock warrant activities in the number of shares of common stock issuable upon exercise of the respective warrants during the year ended December 31, 2024:

	December 31, 2023	Issued	Exercised	December 31, 2024
Public Warrants	764,081	—	—	764,081
SMUD Warrant	833	—	—	833
Investment Warrant	708,775	—	—	708,775
IP Warrant	417,997	—	—	417,997
Performance Warrants	51,717	—	—	51,717
Total common stock warrants	1,943,403	—	—	1,943,403

The table below summarizes the common stock warrant activities in the number of shares of common stock issuable upon exercise of the respective warrants during the year ended December 31, 2023:

	December 31, 2022	Issued	Exercised	Converted <sup>(1)</sup>	December 31, 2023
Earnout Warrants	38,888	—	—	(38,888)	—
Public Warrants	491,860	—	—	272,221	764,081
Private Warrants (excluding Earnout Warrants)	233,333	—	—	(233,333)	—
SMUD Warrant	833	—	—	—	833
Investment Warrant	—	708,775	—	—	708,775
IP Warrant	—	417,997	—	—	417,997
Performance Warrants	—	51,717	—	—	51,717
Total common stock warrants	764,914	1,178,489	—	—	1,943,403

- (1) In accordance with the terms of the Warrant Agreement, dated September 16, 2020, by and between STWO and Continental Stock Transfer & Trust Company ("Continental"), as amended by the Assignment, Assumption and Agreement, dated October 8, 2021, by and among the Company, STWO, Continental and Computershare Trust Company, N.A. (as amended, the "Warrant Agreement"), the Private Warrants, including the Earnout Warrants, automatically converted on a 1:1 basis into Public Warrants upon the transfer of such warrants by the initial holder to a third party during the fourth quarter of 2023.

## 12. STOCK-BASED COMPENSATION

Stock-based compensation expense is allocated on a departmental basis based on the classification of the award holder. The following table presents the amount of stock-based compensation related to stock-based awards issued to

employees on the Company's statements of operations and comprehensive loss during the years ended December 31, 2024 and 2023 (in thousands):

	2024	2023
Cost of revenue	\$ 2,473	\$ 1,753
Research and development	2,457	2,696
Sales and marketing	675	816
General and administrative	5,970	5,370
Total stock-based compensation	<u>\$ 11,575</u>	<u>\$ 10,635</u>

### 2021 Equity Incentive Plan

In October 2021, the Board of Directors of the Company adopted the ESS Tech, Inc. 2021 Equity Incentive Plan (the "2021 Plan"). The 2021 Plan became effective upon consummation of the Business Combination. Stock awards under the plan may be issued as Incentive Stock Options ("ISO"), Non-statutory Stock Options ("NSO"), Stock Appreciation Rights, and RSUs. Only employees are eligible to receive ISO awards. Employees, directors, and consultants who provide continuous service to the Company are eligible to receive stock awards other than ISOs. The number of shares available for issuance under the 2021 Plan will be increased on the first day of each fiscal year beginning with the 2022 fiscal year and ending with the 2031 fiscal year, in an amount equal to the lesser of (i) 1,017,333 shares, (ii) five percent (5%) of the outstanding shares on the last day of the immediately preceding fiscal year, or (iii) such number of shares determined by the Company no later than the last day of the immediately preceding fiscal year. As of January 1, 2025, the number of shares available for issuance under the 2021 Plan was increased by 599,325 shares in accordance with the plan and as approved by the Board. Under the 2021 Plan, the Company has been authorized to issue 2,353,325 shares in total of common stock as of December 31, 2024.

Option prices for incentive stock options are set at the fair market value of the Company's common stock at the date of grant. The fair market value of RSUs is set at the closing sales price of the Company's common stock at the date of grant. Employee new hire grants generally cliff vest 1/4th at the end of the first year and then vest 1/16<sup>th</sup> each quarter over the remaining three years. Grants expire 10 years from the date of grant. All other grants vest quarterly over four years.

As of December 31, 2024, there were 326,794 shares available for future grant under the 2021 Plan.

### Stock Options and Restricted Stock Units

Stock option and RSU activity, prices, and values during the years ended December 31, 2024 and 2023 are as follows (in thousands, except for share, per share, and contractual term data):

	Options Outstanding				RSUs	
	Number of shares	Weighted average exercise price	Weighted average remaining contractual term (years)	Aggregate intrinsic values (\$'000s)	Number of plan shares outstanding	Weighted average grant date fair value per Share
Balances as of December 31, 2023	<u>173,226</u>	\$ 19.90	6.25	\$ 1,422	<u>877,365</u>	\$ 41.81
Options and RSUs granted	—	—			850,700	13.62
Options exercised and RSUs released	(17,063)	5.05			(330,796)	30.97
Options and RSUs forfeited	(4,875)	6.64			(273,379)	25.14
Balances as of December 31, 2024	<u>151,288</u>	\$ 22.00	5.09	\$ 84	<u>1,123,890</u>	\$ 27.72
Options vested and exercisable - December 31, 2023	<u>118,347</u>	\$ 16.53	5.62	\$ 1,198		
Options vested and exercisable - December 31, 2024	<u>130,876</u>	\$ 20.64	4.59	\$ 84		

The aggregate intrinsic value is the fair market value on the reporting date less the exercise price for each option. The aggregate intrinsic value of the options exercised was \$45 thousand and \$0.9 million during the years ended December 31, 2024 and 2023, respectively.

The fair value of each stock option award is estimated on the date of the grant using the Black-Scholes Merton option-pricing model. No options were granted during the year ended December 31, 2024. For options granted during the year ended December 31, 2023 the weighted average estimated fair value using the Black-Scholes Merton option pricing model was \$1.13 per option.

In accordance with ASC 718, the fair value of each option grant has been estimated as of the date of grant using the following weighted average assumptions:

	2023
Risk-free rate	4.38%
Expected volatility	87.08 %
Expected term	6 years
Expected dividends	—

As of December 31, 2024, there was approximately \$18.9 million of unamortized stock-based compensation expense related to unvested stock options and RSUs, which is expected to be recognized over a weighted average period of 2.45 years.

### ***Employee Stock Purchase Plan***

In May 2022, the Company commenced its first offering period under the ESS Tech, Inc. Employee Stock Purchase Plan (“ESPP”), which assists employees in acquiring a stock ownership interest in the Company. The ESPP permits eligible employees to purchase common stock at a discount through payroll deductions during specified offering periods. No employee may purchase more than \$25,000 worth of stock in any calendar year. The price of shares purchased under the ESPP is equal to 85% of the fair market value of the common stock on the first or last day of the offering period, whichever is lower. Total ESPP expense for the years ended December 31, 2024 and 2023 was \$0.2 million and \$0.3 million, respectively.

## **13. FAIR VALUE MEASUREMENTS**

The following tables present the Company’s fair value hierarchy for its financial assets measured at fair value on a recurring basis (in thousands):

	December 31, 2024		
	Cash Equivalents and Restricted Cash	Short-Term Investments	Total Assets at Fair Value
<b>Level 1:</b>			
Money market funds	\$ 7,232	\$ —	\$ 7,232
U.S. Treasury securities	—	7,142	7,142
Total Level 1	7,232	7,142	14,374
<b>Level 2:</b>			
Certificate of deposit	80	—	80
Commercial paper	4,811	7,825	12,636
Corporate debt securities	—	3,296	3,296
Total Level 2	4,891	11,121	16,012
Total assets measured at fair value	\$ 12,123	\$ 18,263	\$ 30,386

	December 31, 2023		
	Cash Equivalents and Restricted Cash	Short-Term Investments	Total Assets at Fair Value
<b>Level 1:</b>			
Money market funds	\$ 10,126	\$ —	\$ 10,126
U.S. Treasury securities	—	54,681	54,681
Total Level 1	10,126	54,681	64,807
<b>Level 2:</b>			
Certificate of deposit	77	—	77
U.S. agency securities	—	12,447	12,447
Commercial paper	9,353	20,771	30,124
Total Level 2	9,430	33,218	42,648
Total assets measured at fair value	\$ 19,556	\$ 87,899	\$ 107,455

The following tables present the Company's fair value hierarchy for its financial liabilities measured at fair value on a recurring basis (in thousands):

	December 31, 2024			
	Level 1	Level 2	Level 3	Total
<b>Liabilities:</b>				
Public common stock warrants	802	—	—	802
Total liabilities measured at fair value	\$ 802	\$ —	\$ —	\$ 802

	December 31, 2023			
	Level 1	Level 2	Level 3	Total
<b>Liabilities:</b>				
Public common stock warrants	917	—	—	917
Total liabilities measured at fair value	\$ 917	\$ —	\$ —	\$ 917

There were no transfers among Level 1, Level 2, or Level 3 categories during the periods presented. The carrying amounts of the Company's accounts payable approximate their fair values due to their short maturities.

*Level 1 Assets:* The Company invests in money market funds and U.S. Treasury securities. These assets are valued using observable inputs that reflect quoted prices for securities with identical characteristics.

*Level 2 Assets:* The Company invests in a certificate of deposit, U.S. agency securities, commercial paper, and corporate debt securities. These assets are valued using observable inputs that reflect quoted prices for securities with similar characteristics and other observable inputs (such as interest rates that are observable at commonly quoted intervals).

*Level 1 Liabilities:* The Company values its public common stock warrants based on the market price of the warrants.

For trading securities held at the reporting date, net losses recorded during the year ended December 31, 2024 and 2023 were immaterial.



#### 14. INCOME TAXES

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The significant components of deferred tax assets and liabilities are as follows (in thousands):

	As of December 31,	
	2024	2023
Deferred tax assets:		
Net operating losses	\$ 62,906	\$ 46,616
Tax credit carryforward	1,783	1,454
Equity compensation	827	1,560
Capitalized research and development expenses	16,646	19,644
Inventory reserve	4,247	3,159
Deferred revenue	4,611	1,002
Other	2,394	2,761
Total deferred tax assets	93,414	76,196
Valuation allowance	(93,009)	(75,590)
Deferred tax assets, net of valuation allowance	405	606
Deferred tax liabilities:		
Right-of-use assets	(384)	(606)
Intangible Assets	(21)	—
Net deferred tax	\$ —	\$ —

ASC 740 requires that the tax benefit of net operating losses, temporary differences and credit carryforwards be recorded as an asset to the extent that management assesses that realization is “more likely than not.” Realization of the future tax benefits is dependent on the Company’s ability to generate sufficient taxable income within the carryforward period. Because of the Company’s history of operating losses, management believes that recognition of the deferred tax assets arising from the above-mentioned future tax benefits is currently not likely and, accordingly, has provided a valuation allowance for fiscal years 2024 and 2023. The valuation allowance increased by \$17.4 million during the year ended December 31, 2024.

As of December 31, 2024, the Company has federal and state net operating loss carryforwards of \$235.6 million and \$235.5 million, respectively. Federal net operating losses generated prior to 2018 will start to expire in 2032. Federal net operating losses generated after 2017 do not expire. The state net operating losses will begin to expire in 2027. The Company also has federal and state research and development tax credit carryforwards totaling \$3.5 million and \$28 thousand, respectively. The federal research and development credit carryforwards begin to expire in 2039, unless previously utilized. The state research and development credit carryforwards do not expire.

The effective tax rate of the Company’s provision for income taxes differs from the federal statutory rate as follows:

	Years Ended December 31,	
	2024	2023
Federal statutory tax rate	21.0 %	21.0%
State tax, net of federal tax benefit	1.6	6.3
Stock compensation	(2.0)	(1.9)
Non-deductible officer compensation	(0.8)	0.8
Permanent differences	(0.1)	(0.1)
Research and development tax credits	0.5	0.5
Other	—	1.0
Valuation allowance	(20.2)	(27.6)
Effective tax rate	— %	— %

The changes in the Company's uncertain tax positions are summarized as follows (in thousands):

Balance as of December 31, 2022	\$ 905
Additions related to prior year	170
Additions related to current year	382
Balance as of December 31, 2023	1,457
Additions related to prior year	(68)
Additions related to current year	397
Balance as of December 31, 2024	\$ 1,786

During both the years ended December 31, 2024 and 2023, the Company recognized an uncertain tax position of \$0.4 million, related to a reduction of the research and development credit deferred tax asset. Unrecognized tax benefits may change during the next twelve months for items that arise in the ordinary course of business. The Company does not expect a material change to its unrecognized tax benefits over the next twelve months that would have an adverse effect on its operating results.

The Company recognizes interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. The Company had no accrued interest or penalties related to uncertain tax positions as of 2024 and 2023.

The Company files federal and certain state income tax returns, which provide varying statutes of limitations on assessments. However, because of net operating loss carryforwards, substantially all tax years since inception remain open to federal and state tax examination.

Utilization of net operating losses and research and development credit carryforwards may be subject to annual limitations due to ownership changes that have occurred or that could occur in the future, as required by Sections 382 and 383 of the Code, as well as similar state provisions. These ownership changes may limit the amount of net operating losses and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an "ownership change" as defined by Section 382 of the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percentage points of outstanding stock of a company by certain stockholders. Due to the existence of the valuation allowance, limitations created by past ownership changes, if any, will not impact its effective tax rate.

## 15. GOVERNMENT GRANTS

### *Inflation Reduction Act of 2022 ("IRA")*

On August 16, 2022, President Biden signed the Inflation Reduction Act of 2022 into law. The IRA has significant economic incentives for both energy storage customers and manufacturers for projects placed in service after December 31, 2022. Starting in 2023, there are Production Tax Credits under Internal Revenue Code 45X, that can be claimed on battery components manufactured in the U.S. and sold to U.S. or foreign customers. The tax credits available to manufacturers include a credit for ten percent of the cost incurred to make electrode active materials in addition to credits of \$35 per kWh of capacity of battery cells and \$10 per kWh of capacity of battery modules. The credits are cumulative, meaning that companies will be able to claim each of the available tax credits based on the battery components produced and sold through 2029, after which the PTC will begin to gradually phase down through 2032.

Since the PTC is a refundable credit (i.e., a credit with a direct-pay option available), the PTC is outside the scope of ASC 740, *Income Taxes* ("ASC 740"). Therefore, the Company accounts for the PTC under a government grant model. GAAP does not address the accounting for government grants received by a business entity that are outside the scope of ASC 740. The Company's accounting policy is to analogize to IAS 20, *Accounting for Government Grants and Disclosure of Government Assistance*, under IFRS Accounting Standards. Under IAS 20, once it is reasonably assured that the entity will comply with the conditions of the grant, the grant money should be recognized on a systematic basis over the periods in which the entity recognizes the related expenses or losses for which the grant money is intended to compensate. The Company recognizes grants once it is probable that both of the following conditions will be met: (1) the Company is eligible to receive the grant and (2) the Company is able to comply with the relevant conditions of the grant.

The PTC is recorded as the applicable items are produced and sold. The Company began earning PTCs in the third quarter of 2023. For the years ended December 31, 2024 and 2023, the Company recognized a PTC benefit of \$1.7 million and \$0.8 million, respectively, as a reduction of cost of revenue on the statements of operations and comprehensive loss. As of December 31, 2024 and 2023, grant receivable related to the PTC in the amount of

\$1.9 million and \$0.8 million, respectively, is recorded in prepaid expenses and other current assets on the balance sheets.

## 16. REVENUE

### Disaggregated Revenue

The following table presents the Company's revenue, disaggregated by source (in thousands):

	Year Ended December 31,	
	2024	2023
Product revenue	\$ 4,795	\$ 5,103
Service revenue	132	183
Other revenue	1,368	2,254
Total revenue	<u>\$ 6,295</u>	<u>\$ 7,540</u>

The majority of the Company's revenue is derived from product sales of energy storage systems. During 2024 other revenue included engineering services related to product site deployment, customer reimbursements for freight, travel, and other expenses, and revenue earned for work performed to date under project contracts that were ultimately terminated. See Note 2, *Significant Accounting Policies* for further information regarding revenue recognition.

### Contract Balances

Contract assets relate to unbilled amounts resulting from contract arrangements in which the related revenue recognition performance obligations have been satisfied, however invoicing to the customer has not yet occurred. Deferred revenue (or contract liabilities) relates to consideration received from customers in advance of the Company satisfying the revenue recognition performance obligations under the related contractual arrangements. Contract balances are reported in a net contract asset or deferred revenue liability position on a contract-by-contract basis at the end of each reporting period. Contract assets are included in prepaid expenses and other current assets and deferred revenue is presented separately on the balance sheets.

The following table provides information about contract assets and deferred revenue from contracts with customers (in thousands):

	December 31, 2024	December 31, 2023
Contract assets	\$ 332	253
Deferred revenue	19,637	20,781

Contract assets increased by \$79 thousand during the year ended December 31, 2024 due to the recognition of revenues for which invoicing had not yet occurred. Deferred revenue decreased by \$1.1 million during the year ended December 31, 2024, reflecting \$1.0 million in customer advance payments, offset by the recognition of \$2.1 million of revenue that was included in the deferred revenue balance at the beginning of the period.

Deferred revenue of \$5.2 million is expected to be recognized within the next 12 months and non-current deferred revenue of \$14.4 million related to the non-refundable deposit discussed in Note 18, *Related Parties*, is expected to be recognized thereafter as firm orders are received and fulfilled. Additionally, contracted but unsatisfied performance obligations that had not yet been billed to the customer or included in deferred revenue were \$13.7 million as of December 31, 2024.

## 17. DEFINED CONTRIBUTION PLAN

The Company has a 401(k) plan to provide defined contribution retirement benefits for all employees who have completed six months of service. Employees may elect to contribute a portion of their pretax compensation to the 401(k) plan, subject to annual limitations. The Company may make profit-sharing contributions at the discretion of the Board of Directors. Employee contributions are always fully vested. For the years ended December 31, 2024 and 2023, the Company contributed \$0.9 million.

## 18. RELATED PARTY TRANSACTIONS

During the year ended December 31, 2024, the Company recognized revenue of \$0.6 million for reimbursable expenses, sale and start up of energy storage systems, and extended warranty services provided to related parties.

During the year ended December 31, 2023, the Company recognized recorded revenue of \$33 thousand for the sale of extended warranty services and reimbursable shipping and freight costs to related parties.

As of December 31, 2024, the Company had recorded deferred revenue of \$37 thousand for sales of extended warranty services to related parties and \$63 thousand of outstanding accounts receivable from related parties. As of December 31, 2023, the Company had recorded deferred revenue of \$1 thousand for extended warranty services provided to related parties and \$29 thousand of outstanding accounts receivable from related parties.

As of December 31, 2024 and 2023, the Company recorded a non-refundable deposit for future equipment purchases by Honeywell of \$14.4 million in deferred revenue. As of December 31, 2024 and 2023, the value of the initial Performance Warrant issued to Honeywell was \$0.7 million included within other non-current assets in the balance sheets. During the year ended December 31, 2024, \$27 thousand of the value of the initial Performance Warrant was amortized as an offset to the revenue recognized in the period.

## 19. NET LOSS PER SHARE

The following table presents the calculation of basic and diluted net loss per share attributable to common stockholders for the years ended December 31, 2024 and 2023 (in thousands, except share and per share data):

	2024	2023
Numerator:		
Net loss attributable to common stockholders	\$ (86,222)	\$ (77,578)
Denominator:		
Weighted-average shares outstanding – basic and diluted	11,773,596	10,663,909
Net loss per share – basic and diluted	\$ (7.32)	\$ (7.27)

Due to the net losses for the years ended December 31, 2024 and 2023, basic and diluted net loss per common share were the same, as the effect of potentially dilutive securities would have been anti-dilutive.

The following outstanding balances of equivalents securities have been excluded from the calculation of diluted weighted-average common shares outstanding because the effect is anti-dilutive for the periods presented:

	2024	2023
Stock options	151,288	173,226
RSUs	1,123,890	877,365
Warrants	1,943,403	1,943,403
Total	3,218,581	2,993,994

## 20. SEGMENT AND OTHER INFORMATION

The Company has determined that its interim Chief Executive Officer is its chief operating decision maker (“CODM”). The Company operates as a single business operating segment, which includes all activities related to the design, engineering, and manufacturing of the Company’s long duration energy storage products. Accordingly, the CODM uses gross loss and net loss as reported in the statements of operations to assess financial performance and inform decisions on how to allocate resources. The financial information provided to the CODM does not contain significant disaggregated expenses outside of what is already disclosed in the statements of operations. The CODM does not evaluate results using asset or liability information.

Revenue from major customers during the years ended December 31, 2024 and 2023 accounted for the following as percentages of total revenue:

	Years Ended December 31,	
	2024	2023
Customer A	45 %	
Customer B	34 %	
Customer C		28 %
Customer D		16 %

Revenue was geographically located as follows (in thousands):

	<b>Years Ended December 31,</b>	
	<b>2024</b>	<b>2023</b>
United States	\$ 3,443	\$ 5,078
International	2,852	2,462
Total revenue	\$ 6,295	\$ 7,540

Substantially all of the Company's long-lived assets and operating lease right-of-use assets were located in the United States as of December 31, 2024 and 2023.



## **ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

Not applicable.

### **ITEM 9A. CONTROLS AND PROCEDURES**

#### *Disclosure Controls and Procedures*

We have established disclosure controls and procedures that are designed to ensure that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as required under Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, our principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures were effective as of December 31, 2024.

#### *Management's Report on Internal Controls over Financial Reporting*

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in "Internal Control — Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2024.

#### *Attestation Report of the Registered Public Accounting Firm*

Our independent registered accounting firm is not required to issue an attestation report on our internal control over financial reporting for so long as we qualify as an "emerging growth company," as defined under the JOBS Act.

#### *Changes in Internal Control over Financial Reporting*

There have been no changes in our internal control over financial reporting during the fiscal year ended December 31, 2024 that materially affected, or which are reasonably likely to materially affect, our internal control over financial reporting.

#### *Inherent Limitations on Effectiveness of Controls*

Our system of internal control over financial reporting was designed to provide reasonable assurance regarding the preparation and fair presentation of published financial statements in accordance with generally accepted accounting principles. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance and may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

### **ITEM 9B. OTHER INFORMATION**

#### *Securities Trading Plans of Directors and Executive Officers*

During the three months ended December 31, 2024, no director or officer, as defined in Rule 16a-1(f) under the Securities Exchange Act of 1934, adopted or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement," each as defined in Regulation S-K Item 408.

### **ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS**

Not applicable.

## **PART III**

### **ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

#### **Directors**

Our current directors are as follows:

Name	Class	Age	Position(s)	Director Since <sup>(1)</sup>	Current Term Expires
<b>Directors:</b>					
Harry Quarls <sup>(3)</sup>	II	72	Chairman and Director	2023	2026
Michael Niggli <sup>(2)(4)</sup>	III	75	Founding Chairman and Director	2015	2024
Raffi Garabedian <sup>(3)</sup>	III	58	Director	2021	2024
Rich Hossfeld <sup>(2)</sup>	I	45	Director	2019	2025
Sandeep Nijhawan <sup>(4)</sup>	II	54	Director	2023	2026
Kyle Teamey <sup>(3)(4)</sup>	II	48	Director	2019	2026
Alexi Wellman <sup>(2)</sup>	III	54	Director	2021	2024

(1) Includes board service at Legacy ESS.

(2) Member of the audit committee.

(3) Member of the compensation committee.

(4) Member of the nominating and corporate governance committee.

**Harry Quarls.** Mr. Quarls has served as chairman of our board of directors since August 2023. Mr. Quarls currently serves as chairman of the board for CHC Helicopter (since September 2022) and Key Energy Services (since March 2020) and as a director at Seadrill (NYSE: SDRL) (since April 2023). Mr. Quarls previously served as chairman of the board for Mesquite Energy (from June 2020 until 2023), EP Energy (from October 2020 until 2022), Sunrise Oil & Gas, Penn Virginia Corporation, SH 130 Concessions Company, Trident Resources Corp, Woodbine Acquisition Corp, and US Oil Sands Corp, and as a director and chairman of the strategic alternatives committee for Gastar Exploration Inc and Rosehill Resources. He also has been a director for FlexSteel Pipe Fairway Resources (from October 2020 until April 2023), PetroQuest Energy, GreenRock Energy and Opal Resources. Mr. Quarls served as a Managing Director at Global Infrastructure Partners leading their efforts in North American energy midstream investments. Additionally, Mr. Quarls served as Managing Director and practice leader for Global Energy as well as a member of the board of directors at Booz & Company, a leading international management consulting firm. With over 40 years of energy experience, Mr. Quarls brings considerable strategic, financial, transactional, and energy investing experience. Mr. Quarls has experience with both public and private companies, and extensive experience working with investor-controlled entities. Mr. Quarls holds BS and ScM degrees in Chemical Engineering from Tulane University and MIT, respectively. He also holds an MBA from Stanford University.

We believe Mr. Quarls is qualified to serve on our board of directors because of his extensive financial and energy investing experience, as well as his experience on the boards of numerous public and private energy companies.

**Michael Niggli.** Mr. Niggli has served as Founding Chairman of our board of directors since August 2023 and as a member of our board of directors since June 2015. He also served as Chairman of our board of directors from June 2015 until August 2023. From 2000 to 2013, he was with San Diego Gas & Electric Company, a regulated utility company owned by Sempra Energy (NYSE: SRE), most recently as President and Chief Operating Officer. Mr. Niggli previously served as Chairman of the Board, Chief Executive Officer and President of Sierra Pacific Resources, and Chairman of the Board, Chief Executive Officer and President of Nevada Power Company. He currently serves on the board of directors of Pacific Gas & Electric Co. (NYSE: PCG) and Avanea Energy Acquisition Corp. (Nasdaq: AVEA) as well as on the board of directors of several privately held companies. Mr. Niggli has authored several articles on issues pertinent to the electric, gas and telecommunications industries and founded the graduate program in power engineering at San Diego State University, where he lectured part-time for five years. Mr. Niggli holds a B.S. in Electrical Engineering from California State University, Long Beach, and an M.S. in Electrical Engineering from San Diego State University. Mr. Niggli participated in the Advanced Management Program at Harvard Business School.

We believe Mr. Niggli is qualified to serve on our board of directors because of his significant operational, risk management and leadership experience in the utility and energy sector.

**Rich Hossfeld.** Mr. Hossfeld has served as a member of our board of directors since October 2019. He is currently the co-CEO of SB Energy Global LLC, and was previously Senior Vice President, Strategy and Investments at SB Energy, a utility-scale solar, storage and technology platform and a subsidiary of SoftBank Group Corp. From September 2013 to August 2018, he was with True North Venture Partners, a venture capital firm, most recently as a Partner. Mr. Hossfeld has also acted as vice president for several global renewable energy providers, including First Solar, and started his career as a corporate law associate at Cravath, Swaine & Moore LLP. He holds a B.A. in Economics and Government from Claremont McKenna College and a J.D. from Duke University School of Law.

We believe Mr. Hossfeld is qualified to serve on our board of directors because of his experience in the renewable energy sector, as well as his prior executive, leadership and advisory roles at various other companies within the energy industry.

**Raffi Garabedian.** Mr. Garabedian has served as a member of our board of directors since February 2021. Since March 2021, he has served as Chief Executive Officer at Electric Hydrogen Co., a company focused on industrial decarbonization Mr. Garabedian co-founded. From June 2008 to November 2020, Mr. Garabedian was with First Solar, Inc. (Nasdaq: FSLR), a manufacturer of solar panels and provider of utility-scale PV power plants and supporting services, most recently as Chief Technology Officer. He was the founding Chief Executive Officer of Touchdown Technologies, Inc., a semiconductor company, which was acquired by Verigy, Ltd. Mr. Garabedian is named on approximately 28 issued U.S. patents. He holds a B.S. in Electrical Engineering from Rensselaer Polytechnic University and an M.S. in Electrical Engineering from the University of California Davis.

We believe Mr. Garabedian is qualified to serve on our board of directors because of his extensive experience in manufacturing technology, strategy, product development, and management.

**Sandeep Nijhawan.** Mr. Nijhawan has served as a member of our board of directors since April 2023. Mr. Nijhawan is co-founder and CEO at Electra, whose mission is to decarbonize iron and steelmaking through an electrochemical, renewable-energy-powered process. Prior to starting Electra in May 2020, he was an operating partner of True North Venture Partners from February 2018 until December 2019 and president of two electrochemistry-focused cleantech startups: AquaHydrex, which developed an electrolyzer for the hydrogen economy, from February 2018 until December 2019, and Staq Energy, which developed distributed energy storage solutions, from February 2016 until December 2019. Earlier in his career, Mr. Nijhawan was a senior vice president at Intermolecular, specializing in accelerating R&D of innovative semiconductor, photovoltaic, battery, and energy-efficient glass materials; founded and was CEO of LED start-up Siorah Incorporated; and progressively held senior roles at Applied Materials (Nasdaq: AMAT). Mr. Nijhawan holds a B-Tech in Aerospace Engineering from the Indian Institute of Technology (IIT), Kanpur, India, an MS in Aerospace Engineering and Ph.D. in Mechanical Engineering from the University of Minnesota, and an MBA from the International Institute for Management Development (IMD) in Lausanne, Switzerland.

We believe Mr. Nijhawan is qualified to serve on our board because of his extensive experience in the cleantech sector, as well as his prior executive, leadership and advisory roles at various other companies within the cleantech sector.

**Kyle Teamey.** Mr. Teamey has served as a member of our board of directors since August 2019. Since January 2023, he has served as a Managing Partner at RA Capital. From July 2018 to January 2023, he served as a Partner at Breakthrough Energy Ventures, or BEV, a venture capital firm focused on sustainable energy and other technologies, and he currently serves as a consultant to BEV. From May 2015 to July 2018, Mr. Teamey served as a Principal at In-Q-Tel, a not-for-profit venture capital firm where he focused on investments in energy, materials, and advanced manufacturing. From October 2009 to March 2015, he served as Chief Executive Officer at Liquid Light, Inc., a company that developed low-energy catalytic electrochemistry to convert carbon dioxide to chemicals and was acquired by Avantium Technologies B.V. From February 2008 to October 2009, Mr. Teamey was an Entrepreneur in Residence with Redpoint Ventures developing new energy and materials companies. Mr. Teamey previously was with the Defense Advanced Research Projects Agency, or DARPA, and developed TiGR situational awareness software which was spun out as Ascend Intel and was acquired by General Dynamics Corporation. Mr. Teamey is a veteran of the U.S. Army, having served as an active-duty officer from June 1998 to December 2004, and retired as a Colonel in the U.S. Army Reserve in 2022. He currently serves on the board of directors of several privately held companies and is an inventor on 26 issued U.S. patents in the fields of electrochemistry and chemical engineering. Mr. Teamey holds a B.A. in Environmental Engineering from Dartmouth College, an M.A. in International Finance and Energy Policy from Johns Hopkins University School of Advanced International Studies, a M.S. in Materials Science from Columbia University, and a Masters of Strategic Studies from the U.S. Army War College.

We believe Mr. Teamey is qualified to serve on our board of directors because of his extensive experience in the energy and technology sector, as well as his prior executive, leadership and advisory roles at various other companies within the energy industry.

**Alexi Wellman.** Ms. Wellman has served as a member of our board of directors since October 2021. Since January 2022, she has served as Chief Executive Officer of Altaba Inc. (Nasdaq: AABAP), a closed-end management investment company f/k/a Yahoo Inc. From June 2017 to December 2021, Ms. Wellman served as Chief Financial and Accounting Officer of Altaba Inc. From October 2015 to June 2017, Ms. Wellman was the Vice President, Global Controller of Yahoo Inc. (Nasdaq: YHOO) and prior to that role, served as Vice President, Finance from November 2013 to October 2015. From October 2004 to December 2011, Ms. Wellman served as a Partner at KPMG LLP, an audit, tax and advisory firm. Ms. Wellman currently serves as a director and chair of the audit committee and is a member of compensation committee. She previously served as a director of Endurance International Group (Nasdaq: EIGI) from 2018 to 2021, Bilander Acquisition Corp (Nasdaq: TWCB) from 2020 to 2022, TWC Tech Holdings II Corp. (Nasdaq: TWCT) from 2020 to 2021,

Nebula Caravel Acquisition Corp. (Nasdaq: NEBC) from 2020 to 2021, and as a director of Yahoo Japan (Tokyo Stock Exchange: 4689) from 2016 to 2018. Ms. Wellman holds a B.S. in Accounting & Business Management from the University of Nebraska.

We believe Ms. Wellman is qualified to serve on our board of directors due to her extensive accounting, corporate finance, and strategic planning experience, as well as her service on the boards of directors of several public and private companies.

### **Board Leadership Structure**

Our corporate governance framework provides our board flexibility to determine the appropriate leadership structure for our company, and whether the roles of chairperson and Chief Executive Officer should be separated or combined. In making this determination, our board considers many factors, including the needs of the business, our board's assessment of its leadership needs from time to time and the best interests of our stockholders. If the role of chairperson is filled by a director who does not qualify as an independent director, then our corporate governance guidelines provide that one of our independent directors may serve as our lead independent director.

Our board believes that it is currently appropriate to separate the roles of chairperson and Chief Executive Officer. The Chief Executive Officer is responsible for day-to-day leadership, while our chairperson, along with the rest of our independent directors, ensures that our board's time and attention is focused on providing independent oversight of management and matters critical to our company. The board believes that Mr. Quarls' deep knowledge of the industry, as well as strong leadership and governance experience, enable Mr. Quarls to lead our board effectively and independently. Mr. Quarls is also the lead independent director under NYSE rules.

### **Role of Board in Risk Oversight Process**

Risk is inherent with every business, and we face a number of risks, including strategic, financial, business and operational, legal and compliance and reputational. We have designed and implemented processes to manage risk in our operations. Management is responsible for the day-to-day management of risks our company faces, while our board of directors, as a whole and assisted by its committees, has responsibility for the oversight of risk management. Our board reviews strategic and operational risk in the context of discussions, question and answer sessions, and reports from the management team at each regular board meeting, receives reports on all significant committee activities at each regular board meeting, and evaluates the risks inherent in significant transactions.

In addition, our board has tasked designated standing committees with oversight of certain categories of risk management. Our audit committee assists our board in fulfilling its oversight responsibilities with respect to risk management in the areas of internal control over financial reporting and disclosure controls and procedures, legal and regulatory compliance, cyber security, and also, among other things, discusses with management and the independent auditor guidelines and policies with respect to risk assessment and risk management. Our compensation committee assesses risks relating to our executive compensation plans and arrangements, and whether our compensation policies and programs have the potential to encourage excessive risk taking. Our nominating and corporate governance committee assesses risks relating to our corporate governance practices, the independence of the board and potential conflicts of interest.

Our board of directors believes its current leadership structure supports the risk oversight function of the board.

### **Board Committees**

Our board of directors has established the following standing committees of the board: audit committee; compensation committee; and nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors is described below.

#### ***Audit Committee***

The current members of our audit committee are Ms. Wellman, Mr. Hossfeld and Mr. Niggli. Ms. Wellman is the chairperson of our audit committee. Our board of directors has determined that each member of our audit committee meets the requirements for independence of audit committee members under the rules and regulations of the SEC and the listing standards of the NYSE, and also meets the financial literacy requirements of the listing standards of the NYSE. Our board of directors has determined that Ms. Wellman is an audit committee financial expert within the meaning of Item 407(d) of Regulation S-K. Our audit committee is responsible for, among other things:

- appointing and overseeing our independent auditor;

- approving audit and non-audit services;
- evaluating the independence and qualifications of our independent auditor;
- reviewing our internal controls and the integrity of our financial statements;
- reviewing presentation of financial information, earnings press releases and guidance;
- overseeing the design, implementation and performance of our internal audit function;
- reviewing the responsibilities, functions, qualifications, budget, performance, objectivity, and the scope and results of internal audits;
- setting hiring policies with regard to the hiring of employees or former employees of our independent auditor and overseeing compliance with such policies;
- reviewing, approving and monitoring related party transactions involving directors or executive officers;
- adopting and overseeing procedures to address complaints received by us regarding accounting, internal accounting controls or auditing matters;
- reviewing and discussing with management (a) the overall adequacy and effectiveness of our legal, regulatory and ethical compliance programs, including our Code of Business Conduct and Ethics, compliance with anti-bribery and anti-corruption laws and regulations, and compliance with export control regulations and (b) reports regarding compliance with applicable laws, regulations and internal compliance programs; and
- reviewing and discussing with management, including our internal audit function, if applicable, guidelines and policies to identify, monitor, and address enterprise risks.

Our audit committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of the NYSE. A copy of the charter of our audit committee is available on our website at <https://investors.essinc.com/governance/governance-documents/>. During the year ended December 31, 2024, our audit committee held five meetings.

### ***Compensation Committee***

The current members of our compensation committee are Mr. Quarls, Mr. Garabedian and Mr. Teamey. Mr. Quarls is the chairperson of our compensation committee. Our board of directors has determined that each member of our compensation committee meets the requirements for independence for compensation committee members under the rules and regulations of the SEC and the listing standards of the NYSE. Each member of the compensation committee is also a non-employee director, as defined pursuant to Rule 16b-3 promulgated under the Exchange Act. Our compensation committee is responsible for, among other things:

- reviewing and approving the compensation for our executive officers, including our Chief Executive Officer;
- reviewing, approving and administering, including the termination of, our employee benefit and equity incentive plans;
- advising our board of directors on management proposals to stockholders on executive compensation matters including advisory votes on executive compensation;
- establishing, and periodically reviewing, our employee compensation plans, policies and practices; and
- reviewing, approving or making recommendations to our board of directors regarding the creation or revision of any clawback policy and administering the same.

Our compensation committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of the NYSE. A copy of the charter of our compensation committee is available on our website at <https://investors.essinc.com/governance/governance-documents/>. During the year ended December 31, 2024, our compensation committee held three meetings.

### ***Nominating and Corporate Governance Committee***

The current members of our nominating and corporate governance committee are Mr. Nijhawan, Mr. Niggli and Mr. Teamey. Mr. Nijhawan is the chairperson of our nominating and corporate governance committee. Our board of directors has determined that each member of our nominating and corporate governance committee meets the requirements for



independence for nominating and corporate governance committee members under the listing standards of the NYSE. Our nominating and corporate governance committee is responsible for, among other things:

- reviewing and assessing and making recommendations to our board of directors regarding desired qualifications, expertise and characteristics sought of board members;
- identifying, evaluating, selecting or making recommendations to our board of directors regarding nominees for election to our board of directors;
- developing policies and procedures for considering stockholder nominees for election to our board of directors;
- reviewing our succession planning process for our Chief Executive Officer and any other members of our executive management team;
- reviewing and making recommendations to our board of directors regarding the composition, organization and governance of our board of directors and its committees;
- reviewing and making recommendations to our board of directors regarding our corporate governance guidelines and corporate governance framework;
- overseeing director orientation for new directors and continuing education for our directors;
- overseeing the evaluation of the performance of our board of directors and its committees;
- reviewing and monitoring compliance with our code of business conduct and ethics, and reviewing conflicts of interest of our board members and officers other than related party transactions reviewed by our audit committee; and
- administering policies and procedures for communications with the non-management members of our board of directors.

Our nominating and corporate governance committee operates under a written charter that satisfies the applicable listing standards of the NYSE. A copy of the charter of our nominating and corporate governance committee is available on our website at <https://investors.essinc.com/governance/governance-documents/>. During the year ended December 31, 2024, the nominating and corporate governance committee held four meetings.

### **Attendance at Board and Stockholder Meetings**

During the year ended December 31, 2024, our board of directors held 17 meetings (including regularly scheduled and special meetings). Each director attended at least 75% of the aggregate of (1) the total number of meetings of the board of directors held during the period for which he or she has been a director, and (2) the total number of meetings held by all committees on which he or she served during the periods that he or she served, except for Raffi Garabedian, who attended 65.0% of the meetings held, due to scheduling conflicts.

Although we do not have a formal policy regarding attendance by members of our board of directors at the annual meetings of stockholders, we encourage, but do not require, directors to attend.

### **Executive Sessions of Non-Employee Directors**

To encourage and enhance communication among non-employee directors, and as required under applicable NYSE rules, our corporate governance guidelines provide that the non-employee directors will meet in executive sessions without management directors or management present on a periodic basis. In addition, if any of our non-employee directors are not independent directors, then our independent directors will also meet in executive session on a periodic basis.

### **Considerations in Evaluating Director Nominees**

Our nominating and corporate governance committee uses a variety of methods for identifying and evaluating potential director nominees. In its evaluation of director candidates, including the current directors eligible for re-election, our nominating and corporate governance committee will consider the current size and composition of our board of directors and the needs of our board of directors and the respective committees of our board of directors and other director qualifications. While our board has not established minimum qualifications for board members, some of the factors that our nominating and corporate governance committee considers in assessing director nominee qualifications include, without limitation, issues of character, professional ethics and integrity, judgment, business experience and diversity, and with respect to diversity, such factors as race, ethnicity, gender, differences in professional background, age and geography, as

well as other individual qualities and attributes that contribute to the total mix of viewpoints and experience represented on our board. Although our board of directors does not maintain a specific policy with respect to board diversity, our board of directors believes that the board should be a diverse body, and the nominating and corporate governance committee considers a broad range of perspectives, backgrounds and experiences.

If our nominating and corporate governance committee determines that an additional or replacement director is required, then the committee may take such measures as it considers appropriate in connection with its evaluation of a director candidate, including candidate interviews, inquiry of the person or persons making the recommendation or nomination, engagement of an outside search firm to gather additional information, or reliance on the knowledge of the members of the committee, board or management.

After completing its review and evaluation of director candidates, our nominating and corporate governance committee recommends to our full board of directors the director nominees for selection. Our nominating and corporate governance committee has discretion to decide which individuals to recommend for nomination as directors and our board of directors has the final authority in determining the selection of director candidates for nomination to our board.

### **Stockholder Recommendations and Nominations to our Board of Directors**

Our nominating and corporate governance committee will consider recommendations and nominations for candidates to our board of directors from stockholders in the same manner as candidates recommended to the committee from other sources, so long as such recommendations and nominations comply with our certificate of incorporation, as amended, and amended and restated bylaws, all applicable company policies and all applicable laws, rules and regulations, including those promulgated by the SEC. Our nominating and corporate governance committee will evaluate such recommendations in accordance with its charter, our bylaws and corporate governance guidelines and the director nominee criteria described above.

A stockholder that wants to recommend a candidate to our board of directors should direct the recommendation in writing by letter to our corporate secretary at ESS Tech, Inc., 26440 SW Parkway Ave, Bldg. 83, Wilsonville, Oregon 97070, Attention: Corporate Secretary. Such recommendation must include the candidate's name, home and business contact information, detailed biographical data, relevant qualifications, a signed letter from the candidate confirming willingness to serve, information regarding any relationships between the candidate and us and evidence of the recommending stockholder's ownership of our capital stock. Such recommendation must also include a statement from the recommending stockholder in support of the candidate. Stockholder recommendations must be received by December 31st of the year prior to the year in which the recommended candidate(s) will be considered for nomination. Our nominating and corporate governance committee has discretion to decide which individuals to recommend for nomination as directors.

Under our amended and restated bylaws, stockholders may also directly nominate persons for our board of directors. Any nomination must comply with the requirements set forth in our amended and restated bylaws and the rules and regulations of the SEC and should be sent in writing to our corporate secretary at the address above. To be timely for our 2025 annual meeting of stockholders, nominations must be received by our corporate secretary observing the deadlines set forth under the heading "*Other Matters—Stockholder Proposals or Director Nominations for 2025 Annual Meeting*" in our definite proxy statement filed on April 5, 2024 or as otherwise determined by the Company.

### **Board Nomination Rights**

Pursuant to the Stockholders' Agreement dated May 6, 2021 between Legacy ESS, SB Energy Global Holdings One Ltd. ("SBE") and Breakthrough Energy Ventures, LLC ("BEV"), each of SBE and BEV is entitled to designate a member of our board of directors until it beneficially owns less than five percent of our issued and outstanding voting stock. Rich Hossfeld currently serves as the designee of SBE.

### **Communications with the Board of Directors**

Stockholders and other interested parties wishing to communicate directly with our non-management directors, may do so by writing and sending the correspondence to our Chief Financial Officer by mail to our principal executive offices at ESS Tech, Inc., 26440 SW Parkway Ave, Bldg. 83, Wilsonville, Oregon 97070. Our Chief Financial Officer, in consultation with appropriate directors as necessary, will review all incoming communications and screen for communications that (1) are solicitations for products and services, (2) relate to matters of a personal nature not relevant for our stockholders to act on or for our board to consider and (3) matters that are of a type that are improper or irrelevant to the functioning of our board or our business, for example, mass mailings, job inquiries and business solicitations. If appropriate, our Chief Financial Officer will route such communications to the appropriate director(s) or, if none is specified, then to the chairperson of the board or the lead independent director. These policies and procedures do not apply to communications to

non-management directors from our officers or directors who are stockholders or stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act.

## Insider Trading Policy

Our board of directors has adopted an Insider Trading Policy that governs the purchase, sale and other dispositions of our securities by our directors, officers, employees. Under the Insider Trading Policy, our employees, including our executive officers, and the members of our board of directors are prohibited from, directly or indirectly, among other things, (1) engaging in short sales, (2) trading in publicly-traded options, such as puts and calls, and other derivative securities with respect to our securities (other than stock options, restricted stock units and other compensatory awards issued to such individuals by us), (3) purchasing financial instruments (including prepaid variable forward contracts, equity swaps, collars and exchange funds), or otherwise engaging in transactions that hedge or offset, or are designed to hedge or offset, any decrease in the market value of equity securities granted to them by us as part of their compensation or held, directly or indirectly, by them, (4) pledging any of our securities as collateral for any loans and (5) holding our securities in a margin account. The foregoing summary of our Insider Trading Policy does not purport to be complete and is qualified in its entirety by the full text of the Insider Trading Policy, which is filed as Exhibit 19.1 to this Annual Report on Form 10-K and is incorporated by reference into this Item.

## Corporate Governance Guidelines and Code of Business Conduct and Ethics

Our board of directors has adopted corporate governance guidelines. These guidelines address, among other items, the qualifications and responsibilities of our directors and director candidates, the structure and composition of our board of directors and corporate governance policies and standards applicable to us in general. In addition, our board of directors has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including our interim Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. The full text of our corporate governance guidelines and code of business conduct and ethics are available on our website at <https://investors.essinc.com/governance/governance-documents/>. We will post amendments to our code of business conduct and ethics or any waivers of our code of business conduct and ethics for directors and executive officers on the same website.

## Executive Officers

Our current executive officers are as follows:

Name	Class	Age	Position(s)
<b>Executive Officers:</b>			
Kelly F. Goodman.....	—	45	Interim Chief Executive Officer
Anthony Rabb.....	—	56	Chief Financial Officer

**Kelly F. Goodman.** Kelly F. Goodman, has served as our interim Chief Executive Officer since February 13, 2025. Prior to her appointment, she served as our Vice President of Legal since March 2022, in which capacity she had responsibility for all aspects of the Company’s legal function, including commercial, partnership and vendor contracts, employment matters and corporate legal matters. Ms. Goodman was also appointed as our Corporate Secretary in April 2022 and she continues to serve in such capacity. Prior to joining the Company, Ms. Goodman was an energy consultant in the energy and transmission space from July 2020 until March 2022 and in various roles at Summit Power Group from 2008 until 2022, including as Vice President, Commercial Transactions & Special Legal Counsel, from March 2016 until March 2022. Ms. Goodman has nearly 20 years of experience in the energy legal sector both in the U.S. and internationally, supporting matters related to project development, technology agreements, and project and corporate financing. Ms. Goodman received her Bachelor of Arts from the University of Santa Clara and her law degree from the University of Washington.

**Anthony Rabb.** Mr. Rabb has served as our Chief Financial Officer since November 2022. From August 2020 to June 2022, Mr. Rabb served as the Chief Financial Officer and Senior Vice President of Total Safety, Inc. and was responsible for Total Safety, Inc.’s finance, accounting, treasury, tax, risk management and information technology matters. From October 2015 to February 2020, Mr. Rabb served as Chief Financial Officer and Executive Vice President of Mirion Technologies, Inc. Mr. Rabb previously served as Chief Financial Officer of several companies, including Vigor Industrial, Brand Energy, and GE Measurement and Sensing Technologies. Mr. Rabb also served as Vice President of Mergers and Acquisitions of GE Capital. Mr. Rabb holds a B.A. in Economics from the University of Colorado, Boulder.

## Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires that our directors and executive officers, and persons who own more than 10% of our common stock, file reports of ownership and changes in ownership with the SEC. Based on our review of such filings and written representations from certain reporting persons that no Form 5 is required, we believe that during the fiscal year ended December 31, 2024, all directors, executive officers and greater than 10% stockholders complied with all Section 16(a) filing requirements applicable to them, except that, as a result of company administrative error the following filings were inadvertently filed later than the time prescribed by the SEC: The Form 4 filing for Eric Dresselhuys relating to the acquisition of RSUs dated May 8, 2024, and the Form 4 filing for Sandeep Nijhawan related to the sale of RSUs to satisfy tax obligations in connection with the vesting of RSUs, dated September 17, 2024.

## ITEM 11. EXECUTIVE COMPENSATION

To achieve our goals, we have designed, and intend to modify as necessary, our compensation and benefits program to attract, retain, incentivize and reward deeply talented and qualified executives who share our philosophy and desire to work towards achieving these goals.

We believe our compensation program should promote our success and align executive incentives with the long-term interests of our shareholders. Our current compensation programs consist primarily of salary, cash bonuses and stock awards. As our needs evolve, we intend to continue to evaluate our philosophy and compensation programs as circumstances require.

This section provides an overview of our executive compensation programs, including a narrative description of the material factors necessary to understand the information disclosed in the summary compensation table below.

### Compensation Committee Interlocks and Insider Participation

During the year ended December 31, 2024, the members of our compensation committee were Mr. Garabedian, Mr. Quarls and Mr. Teamey. None of the members of our compensation committee is or has been an officer or employee of our company. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee (or other board committee performing equivalent functions) of any entity that has one or more executive officers serving on our board of directors or compensation committee.

### Named Executive Officers

Our board of directors and the compensation committee, with input from our Chief Executive Officer (for executive officers other than the Chief Executive Officer), determines the compensation for our named executive officers. For the year ended December 31, 2024, our named executive officers were:

- Eric Dresselhuys, our former Chief Executive Officer and Director; and
- Anthony Rabb, our Chief Financial Officer.

### Summary Compensation Table

The following table sets forth information regarding the compensation reportable for our named executive officers for fiscal year 2024 and prior years where applicable, as determined under SEC rules.

Name and Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$) <sup>(1)</sup>	Option Awards (\$) <sup>(1)</sup>	Nonequity Incentive Compensation (\$)	All Other Compensation (\$) <sup>(2)</sup>	Total (\$)
Eric Dresselhuys.....	2024	500,000	—	544,716	—	—	28,937	1,073,653
<i>Former Chief Executive Officer and Director</i>	2023	465,000	459,095	878,305	308,682	—	17,961	2,129,043
Anthony Rabb.....	2024	427,450	176,323	549,990	—	—	18,741	1,172,504
<i>Chief Financial Officer</i>	2023	415,000	341,441	87,912	—	—	7,907	852,260

- (1) The amounts in this column represent the aggregate grant-date fair value of awards granted to each named executive officer, computed in accordance with the Financial Accounting Standards Board's, or the FASB's, Accounting Standards Codification, or ASC, Topic 718. See Note 12, *Stock-based Compensation*, to our financial statements included elsewhere in this Annual Report on Form 10-K, for a discussion of the assumptions made by us in determining the grant-date fair value of our equity awards. With respect to Mr. Dresselhuys, unvested and outstanding time-based equity awards scheduled to vest within six months of his resignation were accelerated and any remaining unvested and outstanding time-based equity awards were forfeited.

- (2) The amounts in this column include matching 401(k) contributions.

## ***Narrative Disclosure to Summary Compensation Table***

For 2024, the compensation program for our named executive officers consisted of base salary, incentive compensation delivered in the form of a bonus, restricted stock unit awards and 401(k) matching contributions.

### ***Base Salary***

Base salary is set at a level that is commensurate with the named executive officer's duties and authorities, contributions, prior experience and sustained performance. For 2024, our named executive officers had the following annual base salaries: \$500,000 in the case of Mr. Dresselhuys and \$427,450 in the case of Mr. Rabb.

### ***Cash Bonus***

Each of our named executive officers is eligible for an annual bonus under our Employee Incentive Compensation Plan. For fiscal year 2024, our board of directors determined not to award a bonus to Mr. Dresselhuys and to award a bonus of \$176,323 to Mr. Rabb, based upon an assessment of achievement of corporate goals, which included specified technology, engineering, product development, operations and manufacturing, business development and sales, and finance goals.

### ***Stock Awards and Stock Option Awards***

In 2024, restricted stock unit awards were granted to our named executive officers under the 2021 Plan.

## **Policies and Practices Related to the Grant of Certain Equity Awards**

We generally do not grant awards of stock options, stock appreciation rights, or similar option-like instruments. Accordingly, we currently have no specific policy or practice on the timing of awards of such options in relation to the disclosure of material nonpublic information by our Company. In the event that we determine to grant new awards of such options in the future, our board of directors will evaluate the appropriate steps to take in relation to the foregoing.

## **Employment Arrangements**

### ***Eric Dresselhuys***

Mr. Dresselhuys served as our Chief Executive Officer from March 2021 until February 13, 2025 and a member of our board of directors from May 2021 until February 13, 2025. From March 2017 to March 2021, Mr. Dresselhuys served as Chief Executive Officer of Juncion, Inc., a private energy company he founded. Also, from January 2018 to July 2020, Mr. Dresselhuys served as President - Development of Smart Energy Water, a software-as-a-platform for the energy, water and utility sector. From July 2002 to March 2017, he served in various management roles at Silver Spring Networks, Inc., a smart grid products company he co-founded which is now a subsidiary of Itron Inc. (Nasdaq: ITRI), most recently as Executive Vice President, Global Development. Mr. Dresselhuys has served on the boards of directors of various private companies, including Enian, LTD a provider of project management software for renewable energy professionals and AutoGrid Solutions, a provider of distributed resource management analytics and software. Mr. Dresselhuys holds a B.S. in Economics from the University of Wisconsin and earned an Executive Certificate from the Sloan School at the Massachusetts Institute of Technology.

We entered into an employment agreement with Mr. Dresselhuys, our former Chief Executive Officer, on April 1, 2021. Mr. Dresselhuys's employment agreement provided for an initial term from March 25, 2021 through March 25, 2025, with additional one-year terms thereafter, unless either the Company or Mr. Dresselhuys provided notice of the decision to not renew the term at least 60 days before the end of a term.

The employment agreement provided that if we terminated Mr. Dresselhuys's employment without cause or Mr. Dresselhuys terminated his employment for "good reason" (as defined in Mr. Dresselhuys's employment agreement) other than in connection with a "change in control" (as defined in Mr. Dresselhuys's employment agreement), then Mr. Dresselhuys would be entitled to continuing payments of base salary and Company-paid COBRA coverage for 12 months following such termination, a pro-rated bonus payment for the fiscal year in which such termination occurs based on actual achievement, any earned but unpaid bonus from the year prior to such termination, and acceleration of his unvested and outstanding time-based equity awards to the extent that such awards would have vested had his employment continued for an additional six months following such termination (except that, if the termination occurs between six months and 12 months after Mr. Dresselhuys's start date, the number of months of additional vesting will be equal to the number of months of Mr. Dresselhuys's service). The employment agreement also provided that if we terminated Mr. Dresselhuys's



employment without cause or Mr. Dresselhuys terminated his employment for good reason in connection with a change in control, then Mr. Dresselhuys would be entitled to continuing payments of base salary and Company-paid COBRA coverage for eighteen months following such termination, a pro-rated bonus payment for the fiscal year in which such termination occurs based on actual achievement, any earned but unpaid bonus from the year prior to such termination, and 100% acceleration of his unvested and outstanding equity awards, with performance-based awards accelerating at target achievement.

On February 13, 2025, Mr. Dresselhuys separated from the Company and resigned as a member of our board of directors. In connection with the separation, we entered into a Separation and Release Agreement with Mr. Dresselhuys dated as of February 13, 2025, pursuant to which Mr. Dresselhuys will be entitled to continuing payments of his base salary of \$500,000, less applicable withholdings, and Company-paid COBRA coverage for twelve months, and acceleration of unvested and outstanding time-based equity awards vesting within the next six months. Such payments, which are consistent with the provisions of the employment agreement, are in consideration for, and contingent upon, among other things, Mr. Dresselhuys's agreement to a standard release of claims. He remained a non-executive officer employee until February 14, 2025.

### *Anthony Rabb*

We entered into an employment letter with Anthony Rabb, our Chief Financial Officer, on October 31, 2022. Mr. Rabb is an at-will employee. The Company or Mr. Rabb may terminate his employment at any time for any reason.

If we terminate Mr. Rabb's employment without "cause" and other than for disability or death or Mr. Rabb terminates his employment for "good reason" (as those terms are defined in Mr. Rabb's employment letter), then Mr. Rabb will be entitled to continuing payments of base salary and Company-paid COBRA coverage for 9 months following such termination, 75% of his cash bonus target for the fiscal year in which such termination occurs, and acceleration of his unvested and outstanding equity awards to the extent that such awards would have vested had his employment continued for an additional 12 months following such termination.

### **Outstanding Equity Awards at Fiscal 2024 Year-End**

The following table sets forth information regarding outstanding equity awards held by our named executive officers as of December 31, 2024. Market value of shares that have not vested is based on our closing trading price of \$5.88 per share on December 31, 2024.

Name	Grant Date	Option Awards <sup>(1)</sup>			Option Expiration Date	Stock Awards <sup>(1)</sup>	
		Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)		Number of shares or units of stock that have not vested (#)	Market value of shares of units of stock that have not vested (\$)
Eric Dresselhuys.....	4/28/2021 <sup>(2)</sup>	19,307	1,287	80.65	4/27/2031		
	12/17/2021 <sup>(3)</sup>					20,344	119,623
	12/17/2021 <sup>(3)</sup>					40,090	235,729
	12/17/2021 <sup>(4)</sup>					3,814	22,426
	2/16/2022 <sup>(4)</sup>					12,973	76,281
	4/26/2023 <sup>(5)</sup>					23,353	137,316
	9/5/2023 <sup>(6)</sup>	4,288	8,573	24.00	9/5/2033		
	9/5/2023 <sup>(7)</sup>					5,716	33,610
	3/7/2024 <sup>(8)</sup>					33,733	198,350
Anthony Rabb.....	11/2/2022 <sup>(9)</sup>					20,532	120,728
	3/13/2023 <sup>(5)</sup>					2,863	16,834
	2/15/2024 <sup>(8)</sup>					29,790	175,165

(1) Awards granted on or prior to October 8, 2021 were granted pursuant to the 2014 Equity Incentive Plan, or 2014 Plan, and those granted after October 8, 2021 were granted pursuant to the 2021 Equity Incentive Plan, or 2021 Plan. With respect to Mr. Dresselhuys, unvested and outstanding time-based equity awards scheduled to vest within six months of his resignation were accelerated and any remaining unvested and outstanding time-based equity awards were forfeited.

- (2) 1/4th of the total shares vested on March 25, 2022, and 1/48th will vest each month thereafter, subject to the holder's continuous service through each vesting date.
- (3) Vesting is subject to performance milestones, subject to the holder's continuous service through each vesting date.
- (4) Beginning on May 20, 2022, 1/16th of the total shares vest each quarter, subject to the holder's continuous service through each vesting date.
- (5) Beginning on May 20, 2023, 1/16th of the total shares vest each quarter, subject to the holder's continuous service through each vesting date.
- (6) 1/3 of the total shares vested on May 9, 2024 and 1/3 of the shares will vest annually thereafter, subject to the holder's continuous service through each vesting date.
- (7) 1/3 of the total shares vested on November 20, 2024 and 1/3 will vest annually thereafter, subject to the holder's continuous service through each vesting date.
- (8) Beginning on May 20, 2024, 1/16th of the total shares vest each quarter, subject to the holder's continuous service through each vesting date.
- (9) 1/4th of the total shares vested on November 2, 2023, and 1/16th will vest quarterly thereafter, subject to the holder's continuous service through each vesting date.

### **Role of Compensation Consultant**

The compensation committee expects to engage outside consultants every two to three years. Since 2021, the compensation committee has directly retained the services of Pearl Meyer and Partners, LLC, or Pearl Meyer, an independent national executive compensation consulting firm, to assist it in fulfilling its duties and responsibilities. Pearl Meyer does not provide services to the company or its management outside of the services provided to the compensation committee unless directed by the compensation committee.

The consultants were asked to review and analyze comparisons of senior executive compensation and benefits and director compensation utilizing independent surveys and their own database of compensation information. The consultants provided conclusions regarding the salary and benefit levels of senior management and the board of directors. The compensation committee has assessed the independence of Pearl Meyer, as required under NYSE rules. The compensation committee has also considered and assessed all relevant factors, including but not limited to those set forth in Rule 10C-1(b)(4)(i) through (vi) under the Exchange Act, that could give rise to a potential conflict of interest with respect to the compensation consultant described above. Based on this review, we are not aware of any conflict of interest that has been raised by the work performed by Pearl Meyer.

### **Director Compensation**

To attract, retain and reward qualified non-employee candidates to serve on our board of directors, we have adopted an outside director compensation policy (as amended, the "Director Compensation Policy"). The compensation committee reviews the Director Compensation Policy annually in consultation with the company's compensation consultant, and makes recommendations for any revisions to the board of directors. In January 2025, our board of directors revised the Director Compensation Policy to provide that the annual award of restricted stock units will be for a fixed number of shares. See "*Equity Compensation*" below for further details. No other adjustments were made to director compensation.

Under the Director Compensation Policy, as currently in effect, each non-employee director is eligible to receive compensation for his or her service consisting of the following cash and equity components. Our board of directors has the discretion to revise non-employee director compensation as it deems necessary or appropriate.

#### ***Annual Cash Retainer***

Each non-employee director will be paid an annual cash retainer of \$50,000. There are no per-meeting attendance fees for attending meetings of the board of directors. This cash compensation will be paid quarterly in arrears on a prorated basis.

#### ***Committee Annual Cash Retainer***

Each non-employee director who serves as the chair of the board of directors, lead independent director, or the chair or a member of a committee of the board of directors listed below will be eligible to earn additional annual cash fees (paid quarterly in arrears on a prorated basis) as follows:

Position	Annual Cash Retainer (\$)
Chair of the Board of Directors / Lead Independent Director.....	25,000
Chair of Audit Committee.....	20,000
Member of Audit Committee.....	10,000
Chair of Compensation Committee.....	15,000
Member of Compensation Committee.....	7,500
Chair of Nominating and Corporate Governance Committee.....	10,000
Member of Nominating and Corporate Governance Committee.....	5,000

### ***Equity Compensation***

Under our Director Compensation Policy, each individual who first becomes a non-employee director automatically will be granted an award of restricted stock units covering a number of our shares having a value equal to \$200,000, rounded down to the nearest whole share. Each award will vest in equal 1/3 installments on each anniversary following the grant date, subject to the non-employee director continuing to be a service provider through the applicable vesting date.

Additionally, effective as of January 2025, on the date of each of our annual meetings, each non-employee director automatically will be granted an award of restricted stock units for 13,513 shares. Each award will vest on the earlier of (i) the one-year anniversary of the date the award is granted or (ii) the day prior to the date of the annual meeting next following the date the award is granted, in each case, subject to the director continuing to be a service provider through the applicable vesting date.

In addition, the non-executive chair of our board of directors will also be granted (i) a one-time award of options covering a number of our shares having a value equal to \$300,000, rounded down to the nearest whole share (the “Supplemental Initial Award”) and (ii) an annual award of restricted stock units covering a number of our shares having a value of \$300,000, rounded down to the nearest whole share. The Supplemental Initial Award will be a nonstatutory stock option for U.S. tax purposes, will have a term of ten years, subject to earlier termination, and will vest in equal 1/3 installments on each anniversary following the grant date, subject to the non-executive chair’s continuing to be a service provider through the applicable vesting date. The annual award of restricted stock units replaces and is not in addition to the award of restricted stock units which the non-executive chair would otherwise be eligible to receive as a member of our board of directors.

### ***Director Compensation for Fiscal 2024***

The table below summarizes the compensation of each person serving as an ESS non-employee director for the year ended December 31, 2024. Mr. Dresselhuys did not receive any additional compensation for his service as director in 2024. The compensation of Mr. Dresselhuys as a named executive officers is set forth above under “—*Summary Compensation Table*.”

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$)	All Other Compensation (\$)	Total (\$)
Raffi Garabedian.....	57,500	158,237	—	—	215,737
Rich Hossfeld.....	60,000	158,237	—	—	218,237
Michael R. Niggli.....	65,000	158,237	—	—	223,237
Sandeep Nijhawan.....	60,000	158,237	—	—	218,237
Harry Quarls.....	90,000	158,237	—	—	248,237
Kyle Teamey.....	62,500	158,237	—	—	220,737
Alexi Wellman.....	70,000	158,237	—	—	228,237

The following table presents information regarding outstanding equity awards held by our non-employee directors as of December 31, 2024.

Name	Number of Shares Underlying Stock Awards (#)	Number of Shares Underlying Option Awards (#)
	Outstanding as of December 31, 2024	
Raffi Garabedian.....	13,513	9,807
Rich Hossfeld.....	13,513	—
Michael R. Niggli.....	13,513	—
Sandeep Nijhawan.....	13,513	—
Harry Quarls.....	18,999	12,345
Kyle Teamey.....	13,513	—
Alexi Wellman.....	13,513	—

## ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

### Equity Compensation Plan Information

The following table summarizes our equity compensation plan information as of December 31, 2024. Information is included for equity compensation plans approved by our stockholders. We do not have any equity compensation plans not approved by our stockholders.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted- Average Exercise Price of Outstanding Options, Warrants and Rights <sup>(1)</sup>	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) <sup>(2)</sup>
Equity compensation plans approved by security holders			
2014 Equity Incentive Plan	121,702 <sup>(1)</sup>	\$ 18.33 <sup>(2)</sup>	— <sup>(3)</sup>
2021 Equity Incentive Plan	1,153,476 <sup>(4)</sup>	\$ 37.09 <sup>(2)</sup>	326,794 <sup>(5)</sup>
2021 Employee Stock Purchase Plan	—	\$ —	97,834 <sup>(6)</sup>
Equity compensation plans not approved by security holders	—	\$ —	—
Total	1,275,178	\$ —	424,628

(1) Consists of options to purchase a total of 121,702 shares of our common stock under the 2014 Plan.

(2) The weighted average exercise price is calculated based solely on outstanding stock options. It does not take into account the shares of our common stock subject to outstanding restricted stock units, which have no exercise price.

(3) As a result of the business combination in 2021, we no longer grant awards under the 2014 Plan. All outstanding options issued pursuant to the 2014 Plan continue to be governed by their existing terms. To the extent such awards are forfeited or lapse unexercised or are repurchased, the shares of our common stock subject to such awards will become available for issuance under the 2021 Plan.

(4) Consists of (i) options to purchase a total of 29,586 shares of our common stock under the 2021 Plan, and (ii) 1,123,890 shares of our common stock that are subject to outstanding RSUs under the 2021 Plan. Excludes purchase rights currently accruing under the 2021 Employee Stock Purchase Plan, or ESPP.

(5) Our 2021 Plan provides that on the first day of each fiscal year, the number of shares of our common stock available for issuance thereunder is automatically increased by a number equal to the least of (i) 1,017,333 shares, (ii) 5% of the outstanding shares of all classes of our common stock as of the last day of our immediately preceding fiscal year, or (iii) such other amount as our board of directors may determine. On January 1, 2025, the number of shares of our common stock available for issuance under our 2021 Plan increased by 599,325 shares pursuant to these provisions. This increase is not reflected in the table above.

(6) Our ESPP provides that on the first day of each fiscal year, the number of shares of our common stock available for issuance thereunder is automatically increased by a number equal to the least of (i) 204,000 shares, (ii) 1% of the outstanding shares of all classes of our common stock as of the last day of our immediately preceding fiscal year, or (iii) such other amount as our board of directors may determine. The board of directors declined any January 1, 2025 share refresh under the ESPP.

### Security Ownership of Certain Beneficial Owners and Management

The following table sets forth the beneficial ownership of our common stock as of February 28, 2025 by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

We have determined beneficial ownership in accordance with the rules of the SEC, and thus it represents sole or shared voting or investment power with respect to our securities. Unless otherwise indicated, to our knowledge, the persons or entities identified in the table have sole voting power and sole investment power with respect to all shares shown as beneficially owned by them, subject to community property laws where applicable.

We have based our calculation of the percentage of beneficial ownership on 12,103,750 shares of our common stock outstanding as of February 28, 2025. We have deemed shares of our common stock subject to stock options that are currently exercisable or exercisable within 60 days of February 28, 2025 or issuable pursuant to RSUs which are subject to vesting and settlement conditions expected to occur within 60 days of February 28, 2025, to be outstanding and to be beneficially owned by the person holding the stock option or RSU for the purpose of computing the percentage ownership of that person. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated, the address for each person or entity listed in the table is c/o ESS Tech, Inc., 26440 SW Parkway Ave, Bldg. 83, Wilsonville, Oregon 97070.

Name of Beneficial Owner	Shares Beneficially Owned	
	Number	Percentage
<b>Greater than 5% Stockholders:</b>		
SB Energy Global Holdings One Ltd. <sup>(1)</sup>	2,396,980	19.8
Entities affiliated with Honeywell International Inc. <sup>(2)</sup>	2,277,939	18.8
Breakthrough Energy Ventures, LLC <sup>(3)</sup>	1,237,288	10.2
Entities affiliated with Pangaea Ventures III LLC <sup>(4)</sup>	733,081	6.1
Cycle Capital Fund III, L.P. <sup>(5)</sup>	613,688	5.1
<b>Named Executive Officers and Directors:</b>		
Eric Dresselhuys <sup>(6)</sup>	49,008	*
Anthony Rabb <sup>(7)</sup>	21,611	*
Raffi Garabedian <sup>(8)</sup>	24,110	*
Rich Hossfeld <sup>(9)</sup>	833	*
Michael R. Niggli <sup>(10)</sup>	139,570	1.2
Sandeep Nijhawan <sup>(11)</sup>	2,024	*
Harry Quarls <sup>(12)</sup>	26,859	*
Kyle Teamey <sup>(13)</sup>	11,714	*
Alexi Wellman <sup>(14)</sup>	11,860	*
<b>All directors and executive officers as a group (9 persons)<sup>(15)</sup></b>	<b>252,198</b>	<b>2.1</b>

\* Represents less than 1%.

- (1) Based on the Schedule 13D/A filed by SB Energy Global Holdings One Ltd. (“Holdings One”) on March 3, 2025. The securities are held directly by Holdings One, a wholly owned subsidiary of SB Energy Global Holdings Limited (“Holdings Limited”), which is a wholly owned subsidiary of SoftBank Group Capital Ltd (“SBGC”), which is a wholly owned subsidiary of SoftBank Group Corp. (“Softbank”). Each of Holdings Limited, SBGC and SoftBank may be deemed to indirectly beneficially own the shares of common stock directly beneficially owned by Holdings One. Each of Holdings Limited, SBGC and SoftBank disclaim beneficial ownership of all such shares of common stock, except to the extent of their respective pecuniary interest. The address for SB Energy Global Holdings One Ltd. is 69 Grosvenor Street, London, W1K 3JP, United Kingdom. The address of SoftBank is 1-7-1 Kaigan, Minato-ku, Tokyo 105-7537 Japan.
- (2) Based on the Schedule 13G filed by Honeywell on September 25, 2023. Consists of (i) 1,099,450 shares owned by Honeywell Ventures, a wholly owned subsidiary of Honeywell, (ii) a warrant held by Honeywell Ventures to purchase 708,775 shares, which warrant is exercisable within 60 days of February 28, 2025, (iii) a warrant held by Honeywell Ventures to purchase 417,997 shares, which warrant is exercisable within 60 days of February 28, 2025, and (iv) a warrant held by UOP to purchase 51,717 shares, which warrant is exercisable within 60 days of February 28, 2025. The address for each of Honeywell, Honeywell Ventures and UOP is 855 S. Mint Street, Charlotte, NC 28202.
- (3) Based on the Schedule 13D/A filed by Breakthrough Energy Ventures, LLC and Breakthrough Energy Investments, LLC on November 22, 2021. The shares are held directly by Breakthrough Energy Ventures, LLC. Breakthrough Energy Investments, LLC serves as manager of Breakthrough Energy Ventures, LLC. By reason of such relationship, Breakthrough Energy Investments, LLC may be deemed to share voting and dispositive



- power over the common stock listed as beneficially owned by Breakthrough Energy Ventures, LLC. Breakthrough Energy Investments, LLC disclaims beneficial ownership of all such shares, except to the extent of its pecuniary interest. The address for each of Breakthrough Energy Ventures, LLC and Breakthrough Energy Investments, LLC is 250 Summer Street, 4th Floor, Boston, Massachusetts 02210.
- (4) Based on the Schedule 13G/A filed by Pangaea Ventures Fund III, LP on January 31, 2024. Consists of (i) 701,975 shares held by Pangaea Ventures Fund III, LP, (ii) 9,298 shares held by Pangaea Partners LLC, (iii) 12,666 shares held by Monoc Capital Ltd. ("Monoc"), (iv) 3,792 shares held by Vicap LLC ("Vicap"), (v) 866 warrants underlying shares held by The Erickson Family Trust (the "Erickson Trust"), (vi) 2,066 shares held by the Erickson Trust, (vii) 666 shares held by Chris Erickson's spouse, (viii) 1,086 shares held by Chris Erickson's daughter, and (ix) 666 shares held by Chris Erickson's other daughter. Pangaea Venture Funds III, LP is managed by its general partner, Pangaea Ventures III LLC ("Pangaea GP"). Pangaea GP is managed and controlled by Vicap and Monoc, which are owned and controlled by Chris Erickson, Purnesh Seegopaul and Andrew Haughian, respectively. Chris Erickson and Andrew Haughian share voting and dispositive control over the shares held by Pangaea Partners LLC. Chris Erickson serves as trustee of the Erickson Trust and has sole voting and dispositive power with respect to the shares owned by the Erickson Trust. Chris Erickson shares dispositive power over the shares held directly by each of his spouse and his daughters pursuant to the respective proxy of attorney and, as such, may be deemed to be a beneficial owner of such shares. The address for each of these entities and individuals is c/o Pangaea Ventures III LLC, 5080 North 40th Street, Unit 105, Phoenix, Arizona 85018.
- (5) Based on the Schedule 13G/A filed by Cycle Capital Fund III, L.P. on February 14, 2024. The shares are held directly by Cycle Capital Fund III, L.P. The general partner of Cycle Capital Fund III, L.P. is Cycle Capital III, L.P. The general partner of Cycle Capital III, L.P. is Cycle Capital Management III Inc. Andr  e-Lise Methot and Claude Vachet, as the sole officers and directors of Cycle Capital Management III Inc., can be deemed to share beneficial ownership over the shares held by Cycle Capital Fund III, L.P. Cycle Capital III, L.P., and Cycle Capital Management III Inc. Andr  e-Lise Methot and Claude Vachet disclaim beneficial ownership of all such shares, except to the extent of their respective pecuniary interest. The address for each of the Cycle Capital entities, Andr  e-Lise Methot and Claude Vachet is 100 Sherbrooke West, Suite 1610, Montreal, Qu  bec, Canada H3A 3G4.
- (6) Consists of 49,008 shares. Mr. Dresselhuys is the Company's former Chief Executive Officer and Director.
- (7) Consists of 21,611 shares.
- (8) Consists of (i) 14,303 shares and (ii) options to purchase 9,807 shares exercisable within 60 days of February 28, 2025.
- (9) Consists of 833 shares.
- (10) Consists of (i) 63,799 shares held by Mr. Niggli, (ii) 15,160 shares held by the Michael R. Niggli Family Trust to which Mr. Niggli is the trustee, (iii) 5,681 shares held by the Chloe D Niggli 2021 Gift Trust to which Mr. Niggli is the trustee, (iv) 5,681 shares held by the Ian M Niggli 2021 Gift Trust to which Mr. Niggli is the trustee, (v) 5,681 shares held by the Lorelei A Niggli 2021 Gift Trust to which Mr. Niggli is the trustee, (vi) 5,681 shares held by the Michael R Jr Niggli 2021 Gift Trust to which Mr. Niggli is the trustee, and (vii) 21,666 shares held by the Linda Naviaux Niggli Trust to which Linda Naviaux Niggli is the trustee who is the spouse of Mr. Niggli, (viii) 5,407 shares held by the John Naviaux Gift Trust to which Ms. Niggli is the trustee, (ix) 5,407 shares held by the James Naviaux Gift Trust to which Ms. Niggli is the trustee, and (x) 5,407 shares held by the Laura C Sturr Gift Trust to which Ms. Niggli is the trustee.
- (11) Consists of 2,024 shares.
- (12) Consists of (i) 22,744 shares and (ii) options to purchase 4,115 shares exercisable within 60 days of February 28, 2025.
- (13) Consists of 11,714 shares.
- (14) Consists of 11,860 shares.
- (15) Consists of (i) 238,276 shares held by our directors and current executive officers and (ii) options to purchase 13,922 shares exercisable within 60 days of February 28, 2025 held by our directors and current executive officers.

## **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

### **Related Party Transactions**

Other than equity and other compensation, termination, change in control and other arrangements, which are described in “—*Item 11. Executive Compensation*”, the following is a description of each transaction since January 1, 2023, and each currently proposed transaction, to which we were a party, in which:

- the amount involved exceeded or exceeds \$120,000 or 1% of the average of our total assets as of the end of the last two completed fiscal years;
- any of our directors (including director nominees), executive officers, or beneficial holders of more than 5% of any class of our voting securities, or any immediate family member of, or person sharing the household with, any of these individuals or entities, had or will have a direct or indirect material interest.

### ***Registration Rights Agreement***

We are party to a registration rights agreement with certain stockholders, including SB Energy Global Holdings One Ltd, or SBE, pursuant to which, among other things, such stockholders were granted certain customary registration rights, demand rights and piggyback rights with respect to their respective shares of our common stock.

### ***Commercial Agreements***

#### ***SBE Framework Agreement***

In April 2021, Legacy ESS entered into a non-binding framework agreement, dated as of March 31, 2021, or the Framework Agreement, with an affiliate of SBE, which established a framework for the ongoing relationship between the Company and SBE with respect to identifying opportunities to deploy energy storage products to be supplied by us. Rich Hossfeld, a member of our board of directors, is affiliated with SBE. The Framework Agreement included terms providing for the deployment of 2 GWhs of energy storage starting in 2022 through 2026. At current forecasted prices and volumes, the Framework Agreement totals more than \$300 million in revenue opportunities for us. As the Company and SBE finalize projects and deliveries into a rolling forecast, we will reserve production capacity to deliver these projects. To date, no orders have been placed under the Framework Agreement. SBE is under no obligation to place any firm orders with us and any future orders may be subject to future pricing or other commercial or technical negotiations, which we may not be able to satisfy, resulting in a diminished potential value of this relationship to us.

#### ***Honeywell Agreements***

On September 21, 2023, we entered into the Purchase Agreement with Honeywell Ventures, an affiliate of Honeywell, a related party. Pursuant to the Purchase Agreement, Honeywell invested \$27.5 million in the company and we issued 1,099,450 shares of common stock and a warrant to issue up to 708,775 shares of common stock to Honeywell Ventures. Pursuant to the Purchase Agreement and also as further consideration for the licensing by UOP, an affiliate of Honeywell, of certain intellectual property to the company, we issued a warrant to issue up to 417,997 shares of common stock to UOP. The Investment Warrant has an exercise price of \$28.35, and the IP Warrant has an exercise price of \$43.50. Each warrant will expire on September 21, 2028.

On September 21, 2023, we and UOP also entered into the Supply Agreement, pursuant to which UOP may purchase equipment supplied by us. Pursuant to the Supply Agreement, we agreed to issue additional warrants to purchase common stock to UOP, consisting of (i) an initial performance warrant to issue up to 51,717 shares of common stock, issued on September 21, 2023 in exchange for a prepayment of equipment by UOP in the amount of \$15 million, and (ii) additional performance warrants (not to exceed an aggregate value of \$15 million based on target purchase amounts of up to \$300 million by 2030) to be issued on an annual basis for the five-year period beginning in 2026, based on UOP's purchase of additional equipment after execution of the Supply Agreement. The initial Performance Warrant has an exercise price of \$21.75 and the additional Performance Warrants will have an exercise price equal to the volume-weighted average price of our common stock for the last fifteen (15) trading days of the relevant calendar year for which such Performance Warrant is being issued. The initial Performance Warrant will expire on September 21, 2028 and each additional Performance Warrant will have a five-year term from its respective date of issuance.

As of December 31, 2024, we had recorded a non-refundable deposit on equipment received from Honeywell of \$14.4 million in deferred revenue, with \$14.4 million in non-current deferred revenue, and an asset of \$0.7 million for the value of the initial Performance Warrant issued to Honeywell within other non-current assets on the consolidated balance sheets. The value of the initial Performance Warrant will be recognized as an offset to revenue in the period in which revenue is earned. During the year ended December 31, 2024, we recorded revenue of \$0.6 million from Honeywell for the sale and start up of energy storage systems and reimbursable expenses. As of December 31, 2023, we had recorded a non-refundable deposit on equipment received from Honeywell of \$15.0 million in deferred revenue, with \$0.6 million in current deferred revenue and \$14.4 million in non-current deferred revenue, and an asset of \$0.7 million for the value of the initial Performance Warrant issued to Honeywell within other non-current assets on the consolidated balance sheets.

### ***Indemnification Agreements***

We have entered into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in the certificate of incorporation, as amended, and our amended and restated bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers or as a director or executive officer of any other company or enterprise to which the person provides services at our request.

The limitation of liability and indemnification provisions in the certificate of incorporation, as amended, and our amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit the Company and its stockholders. A stockholder's investment may decline in value to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

### ***Employment Agreements***

The stepson of Michael Niggli, our Founding Chairman and Director, has been employed by the Company in a non-executive officer position since March 2019 and earned total compensation in excess of \$120,000 during each year of employment with the Company. During fiscal years 2024 and 2023, he received total cash compensation, including base salary and other cash compensation, of \$203,003 and \$182,467, respectively. He has received and continues to be eligible for equity awards and participation in our general employee benefit plans on the same general terms and conditions as applicable to employees in similar positions. His compensation was established by the Company in accordance with its compensation practices applicable to employees with comparable qualifications and responsibilities and holding similar positions and without the involvement of Mr. Niggli. His employment commenced prior to our adoption of the Related Person Transactions Policy described below, however, the employment was approved by our audit committee once the committee became aware of such employment. He has not resided in Mr. Niggli's household while an employee of the Company.

### **Related Person Transactions Policy**

We have adopted a written Related Person Transactions Policy that sets forth the policies and procedures regarding the identification, review, consideration and oversight of "related person transactions." For purposes of the policy only, a "related person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which the Company or any of its subsidiaries are participants involving an amount that exceeds \$120,000, in which any "related person" has a material interest.

A related person is any executive officer, director, nominee to become a director or a holder of more than 5% of any class of the Company's voting securities (including common stock), including any of their immediate family members and affiliates, including entities owned or controlled by such persons.

Under the policy, the related person in question or, in the case of transactions with a holder of more than 5% of any class of the Company's voting securities, an officer with knowledge of a proposed transaction, must present information regarding the proposed related person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our board of directors) for review. To identify related person transactions in advance, we will rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related person transactions, our audit committee will take into account the relevant available facts and circumstances, which may include, but are not limited to:

- the risks, costs, and benefits to the Company;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties.

Our audit committee will approve only those transactions that it determines are fair to us and in the Company's best interests. All of the transactions described above were entered into prior to the adoption of, or approved in accordance with, such policy.

## Director Independence

Our common stock is listed on the NYSE. As a company listed on the NYSE, we are required under NYSE listing rules to maintain a board comprised of a majority of independent directors as determined affirmatively by our board. Under NYSE listing rules, a director will only qualify as an independent director if that listed company's board of directors affirmatively determines that the director has no material relationship with such listed company (either directly or as a partner, stockholder or officer of an organization that has a relationship with such listed company). In addition, the NYSE listing rules require that, subject to specified exceptions, each member of our audit, compensation and nominating and corporate governance committees be independent.

Audit committee members must also satisfy the additional independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and NYSE listing rules applicable to audit committee members. Compensation committee members must also satisfy the additional independence criteria set forth in Rule 10C-1 under the Exchange Act and NYSE listing rules applicable to compensation committee members.

Our board of directors has undertaken a review of the independence of each of our directors. Based on information provided by each director concerning his or her background, employment and affiliations, our board of directors has determined that Mr. Garabedian, Mr. Hossfeld, Mr. Nijhawan, Mr. Niggli, Mr. Quarls, Mr. Teamey and Ms. Wellman do not have any material relationship with us (either directly or as a partner, stockholder or officer of an organization that has a relationship with us) and that each of these directors is an "independent director" as defined under the listing standards of the NYSE.

In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director, and the transactions involving them described above under "*Related Party Transactions*."

## ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Our independent registered public accounting firm is KPMG LLP; Portland, Oregon; Auditor Firm ID: 185.

### Fees Paid to the Independent Registered Public Accounting Firm

The following table presents fees for professional audit services and other services rendered to us by EY LLP and KPMG LLP for our fiscal years ended December 31, 2024 and 2023.

	2024	2023
<b>Audit Fees<sup>(1)</sup></b>		
Ernst & Young LLP	\$ —	\$ 251,000
KPMG LLP	1,015,000	980,000
Audit-Related Fees	—	—
<b>Tax Fees<sup>(2)</sup></b>		
Ernst & Young LLP	—	91,693
KPMG LLP	34,870	66,253
<b>Total Fees</b>	<b>\$ 1,049,870</b>	<b>\$ 1,388,946</b>

(1) "Audit Fees" consist of fees billed for professional services rendered in connection with the audit of our consolidated financial statements, reviews of our quarterly consolidated financial statements and related accounting consultations and services that are normally provided by the independent registered public accountants in connection with statutory and regulatory filings or engagements for those fiscal years. This category also includes

fees for services incurred in connection with our registration statements on Form S-1, Form S-3 and Form S-8 including comfort letters and consents.

(2) “Tax Fees” consists of tax return preparation and other tax matters.

### **Auditor Independence**

In 2024, there were no other professional services provided by KPMG, other than those listed above, that would have required our audit committee to consider their compatibility with maintaining the independence of KPMG.

### **Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm**

Our audit committee has established a policy governing our use of the services of our independent registered public accounting firm. Under this policy, our audit committee is required to pre-approve all services performed by our independent registered public accounting firm in order to ensure that the provision of such services does not impair such accounting firm’s independence. All services provided by EY and KPMG for our fiscal years ended December 31, 2024 and 2023 were pre-approved by our audit committee.



## PART IV

### ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements and Schedules

The financial statements are set forth under “*Part II - Item 8. Financial Statements and Supplementary Data*” of this Annual Report on Form 10-K. Financial statement schedules have been omitted since they are either not required, not applicable, or the information is otherwise included.

(b) Exhibit Listing

Exhibit	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit No.	Filing Date	
2.1#	<a href="#">Merger Agreement, dated as of May 6, 2021, by and among ACON S2 Acquisition Corp., SCharge Merger Sub, Inc. and ESS Tech, Inc.</a>	8-K	001-39525	2.1	May 7, 2021	
3.1	<a href="#">Certificate of Incorporation of ESS</a>	8-K	001-39525	3.1	October 15, 2021	
3.2	<a href="#">Certificate of Amendment to the Certificate of Incorporation</a>	8-K	001-39525	3.1	May 22, 2023	
3.3	<a href="#">Certificate of Amendment to the Certificate of Incorporation</a>	8-K	001-39525	3.1	August 23, 2024	
3.4	<a href="#">Amended and Restated Bylaws of ESS</a>	10-Q	001-39525	3.2	November 3, 2022	
4.1	<a href="#">Warrant Agreement, dated September 16, 2020, by and between ACON S2 Acquisition Corp. and Continental Stock Transfer &amp; Trust Company</a>	S-4	333-257232	4.1	June 21, 2021	
4.2	<a href="#">Description of securities</a>					X
4.3	<a href="#">Assignment, Assumption and Amendment Agreement to the Warrant Agreement, dated October 8, 2021</a>	8-K	001-39525	4.2	October 15, 2021	
4.4	<a href="#">Warrant to Purchase Stock, dated September 16, 2022, by and between the Company and Sacramento Municipal Utility District</a>	10-Q	001-39525	4.3	November 3, 2022	
4.5	<a href="#">Investment Warrant, dated September 21, 2023</a>	10-Q	001-39525	4.4	November 14, 2023	
4.6	<a href="#">IP Warrant, dated September 21, 2023</a>	10-Q	001-39525	4.5	November 14, 2023	
4.7	<a href="#">Performance Warrant, dated September 21, 2023</a>	10-Q	001-39525	4.6	November 14, 2023	
4.8	<a href="#">Registration Rights Agreement, dated September 21, 2023, by and between the Company and Honeywell ACS Ventures LLC</a>	10-Q	001-39525	4.7	November 14, 2023	
10.1	<a href="#">Form of Registration Rights Agreement</a>	8-K	001-39525	10.4	May 7, 2021	
10.2	<a href="#">Form of Subscription Agreement</a>	8-K	001-39525	10.1	May 7, 2021	
10.3	<a href="#">Stockholders’ Agreement, dated as of May 6, 2021, by and among ESS, SBE and BEV</a>	8-K	001-39525	10.5	October 15, 2021	
10.4#	<a href="#">Framework Agreement, dated as of March 31, 2021, by and between SBE US Holdings One, Inc. and ESS Tech, Inc.</a>	S-4	333-257232	10.13	June 21, 2021	

10.5	<a href="#">Office Lease Agreement, dated July 24, 2017, by and between ESS Tech, Inc. and Parkway Woods Business Park, LLC</a>	S-4	333-257232	10.8	June 21, 2021	
10.6†	<a href="#">2021 Equity Incentive Plan and form of award agreements thereunder</a>	10-K	001-39525	10.9	March 2, 2023	
10.7†	<a href="#">2021 Employee Stock Purchase Plan</a>	10-K	001-39525	10.1	March 2, 2023	
10.8†	<a href="#">Amended and Restated Outside Director Compensation Policy</a>					X
10.9†	<a href="#">Form of Indemnification Agreement</a>	8-K	001-39525	10.2	October 15, 2021	
10.10†	<a href="#">Employment Agreement, dated April 1, 2021, by and between ESS Tech, Inc. and Eric Dresselhuys</a>	S-4	333-257232	10.10	June 21, 2021	
10.11†	<a href="#">Separation and Release Agreement, dated February 13, 2025, by and between ESS Tech, Inc. and Eric Dresselhuys</a>					X
10.12†	<a href="#">Employment Agreement, dated November 1, 2022, by and between ESS Tech, Inc. and Anthony Rabb</a>	10-K	001-39525	10.14	March 2, 2023	
10.13	<a href="#">Common Stock and Warrant Purchase Agreement, dated September 21, 2023, by and between the Company and Honeywell ACS Ventures LLC</a>	10-Q	001-39525	10.1	November 14, 2023	
10.14†	<a href="#">Executive Incentive Compensation Plan</a>	10-K	001-39525	10.17	March 13, 2024	
10.15#	<a href="#">Credit Agreement, dated November 1, 2024, by and between ESS Tech, Inc. and Export-Import Bank of the United States</a>					X
10.16†	<a href="#">Kelly Goodman Offer Letter</a>					X
19.1	<a href="#">ESS Tech, Inc. Insider Trading Policy</a>					X
21.1	<a href="#">List of Subsidiaries</a>					X
23.1	<a href="#">Consent of KPMG LLP, Independent Registered Public Accounting Firm</a>					X
24.1	Power of Attorney (contained in the signature page to this Annual Report on Form 10-K)					X
31.1	<a href="#">Certification of Principal Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended, with respect to the Company's Annual Report on Form 10-K for the year ended December 31, 2022</a>					X

31.2	<a href="#">Certification of Principal Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended, with respect to the Company's Annual Report on Form 10-K for the year ended December 31, 2022</a>	X
32.1*	<a href="#">Certification of Principal Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, with respect to the Company's Annual Report on Form 10-K for the year ended December 31, 2022</a>	X
32.2*	<a href="#">Certification of Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, with respect to the Company's Annual Report on Form 10-K for the year ended December 31, 2022</a>	X
97.1	<a href="#">Compensation Recovery Policy</a>	X
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document	X
101.SCH	Inline XBRL Taxonomy Extension Schema Document	X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	X
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101)	X
†	Indicates management contract or compensatory plan or arrangement.	
#	Portions of this exhibit have been omitted in accordance with Item 601 of Regulation S-K.	
*	These exhibits are furnished with this Annual Report on Form 10-K and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of ESS Tech, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filings.	

## ITEM 16. FORM 10-K SUMMARY

Not applicable.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

March 31, 2025

### ESS TECH, INC.

By: /s/ Kelly F. Goodman

Name: Kelly F. Goodman

Title: Interim Chief Executive Officer

(Principal Executive Officer)

By: /s/ Anthony Rabb

Name: Anthony Rabb

Title: Chief Financial Officer

(Principal Financial and Accounting Officer)

**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kelly F. Goodman and Anthony Rabb, jointly and each one of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming that all said attorneys-in-fact and agents, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities indicated on March 31, 2025.

<b><u>Signature</u></b>	<b><u>Title</u></b>
<u>/s/ Kelly F. Goodman</u> <b>Kelly F. Goodman</b>	<i>Interim Chief Executive Officer</i> (Principal Executive Officer)
<u>/s/ Anthony Rabb</u> <b>Anthony Rabb</b>	<i>Chief Financial Officer</i> (Principal Financial and Accounting Officer)
<u>/s/ Harry Quarls</u> <b>Harry Quarls</b>	<i>Chairman of the Board and Director</i>
<u>/s/ Michael Niggli</u> <b>Michael Niggli</b>	<i>Founding Chairman and Director</i>
<u>/s/ Raffi Garabedian</u> <b>Raffi Garabedian</b>	<i>Director</i>
<u>/s/ Rich Hossfeld</u> <b>Rich Hossfeld</b>	<i>Director</i>
<u>/s/ Sandeep Nijhawan</u> <b>Sandeep Nijhawan</b>	<i>Director</i>
<u>/s/ Kyle Teamey</u> <b>Kyle Teamey</b>	<i>Director</i>
<u>/s/ Alexi Wellman</u> <b>Alexi Wellman</b>	<i>Director</i>