ENERGY VAULT®
Enabling a Renewable World

Energy Vault Holdings, Inc.
Annual Report
2022

Dear Shareholders,

2022 was a transformational year. We finished our first year as a publicly listed company, a year that saw us launch in February while delivering our first $146 million in revenue throughout the year, $100 million of which was achieved in Q4 alone due to strong execution and customer focus by our people in our first start to deployments and project revenue.

In February of 2022, we completed our go-public process resulting in our listing on the New York Stock Exchange. This importantly included strategic investors like Korea Zinc and Atlas Renewable providing a combined $100 million committed capital.

This was followed by immediately breaking ground on our first EVx gravity energy storage system in Rudong, China in March. The momentum on our innovative gravity-energy storage system continued throughout the year with the groundbreaking of our first US-based EVx system in September with Enel Green Power in Snyder, Texas and we finished the year signing more territory expansions and license and royalty agreements with customers in Egypt and Greece, all of which sets the platform up for further commercial deployment of the EVx globally. We believe that our commercial and operational achievements in 2022 positions Energy Vault for success in the long-duration energy storage market for decades to come.

Furthermore, China's renewable energy capacity has grown rapidly in recent years, driven by favorable policies and declining costs of renewable energy technologies. According to the International Energy Agency (IEA), China added more renewable energy capacity than any other country in recent years with wind and solar accounting for the majority of the growth.

The growth of renewable energy sources has brought about new challenges, such as intermittency and variability, which can disrupt the stability of the power grid. Energy storage solutions, such as those offered by Energy Vault, are critical in addressing these challenges by enabling the grid to balance supply and demand and ensuring reliable and stable electricity supply.

As China continues to pursue its ambitious climate goals, the demand for energy storage solutions is only increasing. Energy Vault's innovative and sustainable energy storage technology is uniquely positioned to meet this growing demand, and we are committed to helping China and other countries transition towards a low-carbon energy future. From a global perspective, China represents the most important priority to deploy energy storage and accelerate renewable generation to replace fossil fuel, as China today produces more CO2 emissions than the next seven countries combined and plans to continue to increase CO2 emissions into 2030. With our first GESS system expected to come online in 2023, Energy Vault expects to have the first LDES (long duration energy storage) solution operating in a country that aims to be the largest operator of energy storage systems in the coming years.

Energy Vault is proud to be at the forefront of this energy storage revolution, with the first and largest long-duration energy storage system of its kind in China. We are excited to partner with local players such as Atlas Renewable, China Tianying, and EIPC to make this vision a reality. Our partnership with Atlas Renewable has given us valuable insights into the energy landscape in China and enabled us to expand our business in the region. The partnership with China Tianying, a prominent environmental services provider in China, highlights our commitment to sustainable development and reducing the carbon footprint of energy generation.

As China's energy transition continues over the next 30+ years, we are well-positioned to play an important role in the country's energy landscape. With our portfolio of energy storage solutions and strong partnerships, we are confident that we can meet the growing demand for energy storage in China and beyond. Our innovative technology and commitment to sustainability make us a valuable partner in China's energy transition, and we are excited to be part of this transformational journey.

At Energy Vault, we understand that our success is directly tied to our ability to listen and respond to the ever-evolving demands of our customers and the market. It is this customer-centric mindset that sets us apart from the competition and enables us to drive innovation and deliver exceptional value to our clients.

As the market demand for short-duration energy storage solutions continues to grow, we have remained agile and responsive to the needs of our customers. Our Energy Vault Solutions team has worked tirelessly to develop a cutting-edge energy management system that allows us

to pursue a technology-agnostic business model, providing our customers with the flexibility and customization they require through both hardware and software innovation.

The results speak for themselves and in the second half of 2022, we announced the signing of approximately 1.6 gigawatt hours of battery, hybrid, and green hydrogen energy storage projects, with leading utility and IPP (independent power producers) companies such as PG&E, NV Energy, Wellhead, and Jupiter.

This success is a testament to the value that our customers place not only in our differentiated hardware architectures and software design but also in the extensive operational experience and expertise of our team. As a result of our track record of delivering on large-scale and complex projects, our customers trust us to deliver on our commitments and drive meaningful results.

As we look to the future, we remain committed to listening to our customers and adapting to the changing market landscape. We are excited to continue pushing the boundaries of what is possible in the energy storage industry and delivering exceptional value to our clients around the world.

We are incredibly proud of the achievements we have made in 2022, which would not have been possible without the dedication and hard work of the talented team at Energy Vault. Over the course of the year, we saw significant growth in our team, with the number of employees at Energy Vault increasing by more than 100%, from around 70 employees at the end of 2021 to nearly 200 employees by the end of 2022.

This expansion of our team has enabled us to achieve even more in terms of developing and scaling our innovative energy storage solutions. The larger and more diverse team has helped accelerate our product development, streamline our processes, and expand our operations globally. Our expanded team has also helped us to offer better support and services to our customers, partners, and stakeholders around the world.

The results of our growth are clear, with Energy Vault continuing to have a leading role in the energy storage industry. Looking ahead, we are confident that our team's continued dedication and hard work will drive even more success in the years to come.

Looking ahead to 2023, Energy Vault has some tremendous milestones to deliver upon with the planned completion and commissioning of the first commercially operated EVx system in China, and the turnover of our first three battery storage projects representing almost 1GWh alone of energy storage capacity – all in unprecedented time frames within nine to twelve months of project signing. The quality of our service on these projects will demonstrate to the market our strength in project execution and customer focus that will only accelerate the momentum we have built in the business. I am confident that 2023 will be an exceptional year of operational excellence for the company and I look forward to delivering on our promise to our customers and shareholders to steward well the capital entrusted to us and drive long-term value creation.

We are grateful to our shareholders for their unwavering support and commitment to Energy Vault. Your trust in our vision and dedication to building a sustainable future for all is what drives us forward every day.

As we work towards our mission to accelerate the global transition to renewable energy and decarbonize the world, we recognize that our shareholders play a crucial role in helping us achieve these ambitious goals. Your investment in our company allows us to continue developing and scaling our innovative energy storage solutions, expanding our operations globally, and advancing the energy transition.

We are proud of the progress we have made so far, but we know there is still much more work to be done. With the support of our shareholders, we are confident that we can continue to push the boundaries of what is possible in the energy storage industry and help build a more sustainable future for generations to come.

Thank you again for your continued partnership and support. We look forward to sharing our future successes with you.

Yours sincerely,

Robert Piconi

Energy Vault Chairman
and Chief Executive Officer

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, 2022

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 001-39982

ENERGY VAULT HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**85-3230987**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4360 Park Terrace Drive, Suite 100 **Westlake Village, California**	**91361**
(Address of Principal Executive Offices)	(Zip Code)

(805) 852-0000

Registrant's telephone number, including area code

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	NRGV	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 and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

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 on 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. ☐

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 voting stock held by non-affiliates of the registrant on June 30, 2022, based on the closing price of $10.02 for shares of the Registrant’s Class A common stock as reported by the New York Stock Exchange, was approximately $661.6 million. Shares of common stock beneficially owned by each executive officer, director, and holder of more than 5% of our common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The registrant had 141,392,243, shares of common stock, par value $0.0001 per share, outstanding as of April 7, 2023.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates certain information by reference from the definitive proxy statement for the registrant’s 2023 annual meeting of stockholders to be filed within 120 days of the registrant’s fiscal year ended December 31, 2022, or the Proxy Statement. Except with respect to information specifically incorporated by reference in this Annual Report on Form 10-K, the Proxy Statement is not deemed to be filed as part of this Annual Report on Form 10-K.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the federal securities laws. All statements other than statements of historical facts contained in this Annual Report on Form 10-K, including statements regarding our future results of operations or financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that are in some cases beyond our control and may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will" or "would" or the negative of these words or other similar terms or expressions. These forward-looking statements include, but are not limited to, statements concerning the following:

- changes in our strategy, expansion plans, customer opportunities, future operations, future financial position, estimated revenues and losses, projected costs, prospects and plans;
- the implementation, market acceptance and success of our business model and growth strategy;
- our ability to develop and maintain our brand and reputation;
- developments and projections relating to our business, our competitors, and industry;
- the impact of health epidemics on our business and the actions we may take in response thereto;
- our expectations regarding our ability to obtain and maintain intellectual property protection and not infringe on the rights of others;
- expectations regarding the time during which we will be an emerging growth company under the JOBS Act;
- our future capital requirements and sources and uses of cash;
- our ability to obtain funding for our operations and future growth; and
- our business, expansion plans and opportunities.

You should not rely on forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and operating results. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. The results, events and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements. Additionally, our discussions of ESG assessments, goals and relevant issues herein are informed by various ESG standards and frameworks (including standards for the measurement of underlying data), and the interests of various stakeholders. References to "materiality" in the context of such discussions and any related assessment of ESG "materiality" may differ from the definition of "materiality" under the federal securities laws for SEC reporting purposes. Furthermore, much of this information is subject to assumptions, estimates or third-party information that is still evolving and subject to change. For example, our disclosures based on any standards may change due to revisions in framework requirements, availability of information, changes in our business or applicable government policies, or other factors, some of which may be beyond our control.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this Annual Report on Form 10-K. While we believe that information provides a reasonable basis for these statements, that information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely on these statements.

Part I

Item 1. Business

Energy Vault Holdings, Inc., (together with its subsidiaries "Energy Vault" or the "Company") was originally incorporated under the name Novus Capital Corporation II ("Novus") as a special purpose acquisition company in the state of Delaware in September 2020 with the purpose of effecting a merger with one or more operating businesses. On September 8, 2021, Novus announced that it had entered into a definitive agreement for a business combination (the "Merger Agreement") with Energy Vault, Inc. ("Legacy Energy Vault") that would result in Legacy Energy Vault becoming a wholly owned subsidiary of Novus (the "Merger"). Upon the closing of the Merger on February 11, 2022 (the "Closing"), Novus was immediately renamed to "Energy Vault Holdings, Inc."

Throughout this Annual Report, unless otherwise noted, the "Company," "we," "us," or "our" and similar terms refer to Legacy Energy Vault and its subsidiaries prior to the consummation of the Merger, and Energy Vault and its subsidiaries after the consummation of the Merger.

Mission

Energy Vault provides energy storage solutions to accelerate the global transition to renewable energy.

About Us

Energy Vault is a grid-scale energy storage company that is driving a faster transition to renewable power by solving the intermittence issues that are inherent to the most prevalent sources of renewable energy, solar and wind.

While solar and wind power generation have become increasingly cost-competitive with fossil fuels, their use is economically constrained by their inherent intermittency. The continued growth of solar and wind power generation as an economically viable alternative to fossil fuels depends on better energy storage solutions.

We believe that Energy Vault provides the energy storage solutions that will enable solar, wind, and other renewable energy sources to reach their full potential. Our solutions are designed on a software platform that orchestrates the delivery of power from a broad range of storage mediums and across a variety of storage durations. This allows stored energy to be dispensed at a variety of magnitudes for shorter, longer, and extended durations of time. We believe that this agnostic approach to power generation, combined with flexible storage architecture, will enable a faster transition to renewable energy.

The majority of the energy storage solutions we are deploying today will store energy generated from solar, wind, and hydrogen power, however, our energy storage architecture is designed to accommodate multiple renewable power sources across a variety of energy storage technologies. We anticipate that this approach will allow our solutions to address not only the energy storage needs of today, but to also seamlessly adapt to the evolving needs of our customers well into the future.

The Company's portfolio of market-ready turnkey energy storage solutions currently includes:

- Battery energy storage systems ("BESS") are our integrated solutions to meet shorter-duration storage needs.
- Gravity energy storage systems ("GESS") include our proprietary EVx solution to meet longer-duration storage needs.
- Green hydrogen energy storage systems ("gHESS") are our integrated solutions to meet extended duration storage needs.
- Hybrid energy storage systems ("HESS") are our uniquely integrated solutions which allow the pairing of various energy storage mediums to meet specific customer needs.
- Energy management software platform ("EMS") is our proprietary solution designed by our Energy Vault Solutions ("EVS") division that orchestrates the management of one or more of our diverse storage mediums, along with the underlying generation assets to enable the delivery of power to our customers for their varied and multiple use cases.

Prior to 2022, the Company was primarily involved in research and development activities. The Company began generating revenue from its product offerings during 2022, primarily from the licensing of our GESS EVx solution and from the sale of our BESSs. We expect to generate revenue in the future from the sale and licensing of the Company's energy storage solutions, EMS, additional software applications, and long-term services agreements, including pursuant to tolling arrangements in connection with energy storage systems that we intend to own and operate.

Industry Overview

The growth of the energy storage market that we address is primarily driven by the decreasing cost of renewable power generation sources, government mandates, financial incentives to reduce CO2 emissions, and increasing geopolitical pressures driving energy independence goals. These dynamics are in turn driving demand for additional renewable power generation and increased capacity and storage duration in energy storage solutions.

According to a BloombergNEF analysis published in October 2022, demand for clean energy is growing rapidly, with renewable energy expected to supply nearly two-thirds of the world's electricity demand by 2050. Global energy storage additions are on track to grow at a 21% compound annual growth rate through 2030, with annual additions reaching 233 GWhs and cumulative capacity reaching nearly 400 GWhs. Both government mandates and companies focused on reducing energy use, cost, and emissions will propel the shift to renewable sources of power. We believe we are well-positioned to capitalize on this opportunity through our competitive pricing and scalability, and the environmentally friendly attributes of our energy storage solutions that cover the spectrum from shorter durations to extended durations.

During 2022, the United States Congress passed the Inflation Reduction Act ("IRA"). The IRA provides incentives for the domestic manufacturing of key components of energy storage solutions as well as the construction of standalone energy storage projects. The resulting improved economics are expected to reduce the cost to implement storage within the domestic market and may amplify and accelerate the adoption of energy storage systems for shorter, longer, and extended duration use cases, like those offered by Energy Vault.

Our Solutions

Our energy storage and software solutions allow utilities, independent power producers, and large energy users to manage their power portfolios. We provide turnkey energy storage solutions that meet the demands of the market for shorter duration with our BESSs and longer duration with our GESSs. In addition, our hybrid systems that incorporate other energy storage mediums, such as green hydrogen, address demand for extended duration energy storage. Our technology agnostic EMS platform once fully functional will orchestrate the management of one or more of our diverse storage mediums and the underlying generation assets to enable the delivery of power to our customers for their varied and multiple use cases.

Our solutions are designed to address the intermittency inherent in the predominant sources of renewable energy production by storing energy produced when renewable energy production is active. Once stored in our storage solutions, energy can be discharged to the grid in a controlled and reliable manner at any time, regardless of the then current ability of the renewable sources to generate power. Our energy storage solutions are designed to accommodate a wide variety of renewable power sources and to achieve an attractive levelized cost of energy relative to fossil fuels. Collectively, these abilities greatly broaden the use cases and time duration scenarios that can be addressed by certain sources of renewable power.

Battery Energy Storage Systems (BESS)

Energy Vault's BESSs are expected to meet shorter-duration energy storage needs, typically in the range of one to four hours. Our BESSs are designed to utilize a purpose-built battery and inverter system with an innovative architecture that lowers cost, improves performance, and ensures the highest level of project safety. The Company's agnostic EMS platform has been designed to drive better economics and delivery timelines for our customers as it will enable a BESS to integrate hardware components from a diverse network of battery and power electronics manufacturers. Our BESSs also are designed to utilize flexible system architecture for long-term asset resiliency as grid conditions and market parameters change.

Gravity Energy Storage Systems (GESS)

Our proprietary gravity-based systems use motors/generators to lift and lower custom-made composite blocks, or "mobile masses." The GESS lifts the mobile masses to an elevated position to store potential energy. When energy is needed, the motors act as generators and the system discharges electricity generated from the kinetic energy of the controlled gravitational lowering of the mobile masses.

Our GESS leverages the core, proven energy storage technology of pumped hydroelectric energy storage, while not being constrained by the same geological factors of pumped hydroelectricity by incorporating a simplified building design that is modular and flexible. Our solution combines advanced materials science and proprietary machine-vision software to autonomously coordinate the charge, storage, and discharge of electricity in grid-scale applications. Our GESS is expected to meet the market demand for longer storage duration, typically in the range of four to twelve hours.

The construction and operation of our GESS offers a highly attractive opportunity for significant local, regional, and domestic economic participation, primarily in the form of labor and materials, which aligns well with current geopolitical

sentiments. One example of this is that the mobile masses can be made from local soil, waste, and remediation material, which provide additional environmental benefits.

Hybrid Energy Storage Solutions

The energy storage market is very dynamic and evolving as increasingly more variable forms of renewable power and energy are deployed and the use cases for corresponding storage expands dramatically in breadth, depth, and duration. To proactively embrace this opportunity, we continuously research and accelerate the development and commercial introduction of complementary energy storage solutions to our existing portfolio. In this manner, we provide customers with energy storage solutions across an increasingly variety of different mediums, currently including battery, gravity, and green hydrogen.

Energy Management Software (EMS)

Our EMS platform is a technology agnostic energy storage software solution. Once fully functional, we anticipate that it will manage one or more of our diverse storage mediums and the underlying generation assets to optimize delivery of power to our customers for their varied and multiple use cases. The EMS platform is designed to allow future storage and generation technologies to blend into the Company's existing solutions portfolio and thereby provide optionality for our customers in the future. We intend to continue to enhance the EMS platform, as well as expand our software ecosystem with additional modules for a variety of use cases and applications.

Our software incorporates artificial intelligence, predictive analytics, and software optimization algorithms to provide our customers with efficient and profitable operations of their power generation assets. Commercially, the Company currently includes a baseline EMS as part of the sale of an energy storage system. Subsequent to the sale of energy storage system, the Company expects that customers will purchase a multi-year, recurring revenue software license agreement from us that will provide customers with ongoing software updates and support.

Strategy, Strengths, and Differentiation

We leverage our sustainable and differentiated technology to provide our customers with an economical solution to meet their shorter, longer, and extended-duration renewable energy storage needs. We believe that the majority of our competitors are primarily focused on the development and marketing of vertically siloed solutions based on a singular energy storage technology. We anticipate that our market will be characterized by high growth and rapidly evolving use cases and requirements. As a result, we have strategically chosen to design an agile and agnostic software platform that can orchestrate the management of one or more of our diverse storage mediums and the underlying power generation assets to harmonize asset operation and maximize economic return for our customers. This full spectrum of energy storage solutions assures our customers that we not only have what they need today, but that we also have what they will need in the future, thereby protecting their investments in our products. For these reasons, we believe we are well positioned to compete successfully in the evolving market for energy storage solutions.

Project Delivery

Our project delivery generally relies on third-party engineering, procurement, construction ("EPC") firms to construct our storage systems, under our supervision with dedicated teams tasked with project management. Our current business model options include:

- Building, operating, and transferring energy storage projects to potential customers,
- Building, operating, and holding energy storage systems as equity (co-) sponsor that may provide recurring revenue in the future,
- Recurring software revenue through licensing software for asset management and use case applications,
- Recurring service revenue through long term service agreements, and
- Intellectual property licenses and royalties associated with our energy storage technologies that may provide recurring revenues in the future.

Manufacturing and Customer Support

Our manufacturing, assembly, and construction model is designed to support rapid growth, local jobs, and global execution.

The physical structure of our proprietary GESS is based on our novel designs with many of the components manufactured by our suppliers uniquely for us. Some of these components are made at the suppliers factories, while some are made closer to, or at, the project site itself. Most of the electrical system components of our GESS are off-the-shelf in nature and can be procured from multiple sources worldwide.

The components of our BESS and gHESS are primarily off-the-shelf in nature and can be procured from multiple sources worldwide. Some of the power components of our BESS and gHESS are common and we strive for economies of scale when appropriate. We typically procure BESS batteries at either the cell, module, or rack level, and then use other contractors to integrate and assemble the batteries into outdoor enclosures that are then shipped to the project site.

Construction at project sites typically involves establishing regional and country level infrastructure to support local deployments through an EPC contracting model.

We provide maintenance, customer support, and repair services for the entire storage system throughout the system's operating life, including performance of regular preventative maintenance and software upgrades when appropriate..

Supply Chain

We proactively maximize our beneficial involvement in key aspects of the global, domestic, regional, and local supply chains that support our solutions. Through our extensive supply chain procurement process, we deliver our customers a thoroughly vetted and secure source of integrated components for their energy storage needs. Given our technology-agnostic approach, we can procure equipment from a variety of top-tier global suppliers without reliance on a single-source company or geography.

The market our suppliers serve is highly impacted by government legislation. As such, we continue to proactively monitor planned and/or enacted legislation in the countries and regions that we serve. When new legislation is enacted, we seek to find ways to utilize the legislation to reduce our cost to obtain energy storage components. This includes the recent IRA that was passed in the United States for manufacturing and project incentives, and the potential reactionary legislation to follow in response elsewhere in the world.

Marketing and Sales

We believe that our marketing strategy positions us as a leadership brand and a respected and sought-after long-term strategic partner that will contribute to our customers' growth and profitability. Our marketing strategy includes the following:

- *Brand Visibility, Awareness, and Education*: Through branding and web marketing, we communicate with a broad set of stakeholders and work to establish leadership expertise to lay the foundation for qualified customer and supplier interaction.
- *Drive Demand*: Our corporate outreach strategy is designed to drive demand for lead generation. We work to achieve this through web marketing and initiatives designed to accelerate the customer adoption process.

To achieve this, we employ the following:

- *Integrated Marketing*: We take a targeted approach to strategic integrated marketing campaigns that are designed to maximize available budget while elevating our voice within the marketplace, generate leads, and close deals.
- *Lead Generation Model*: Our campaigns are designed to drive "a call to action" on our website to capture leads. We also engage in a range of other traditional marketing activities such as tradeshows and events, internal / partner sources, and various digital marketing activities such as website, search engine optimization, social media integration, online events, and forums.
- *Sales Model*: Our sales model focuses on winning large and sophisticated energy storage projects where the customers and their use cases demand, and benefit from, the agility of our solutions and organization to provide them with the best-fit for their project requirements today and well into the future. Given this sales model, we focus on high growth geographical regions.

  While we have global coverage, our primary geographical focus is North America, Australia, Europe, and Southeast Asia. We have established offices and presence in all of these regions. We have also reached out beyond these regions via a network of representatives and we intend to continue to grow and staff both direct and indirect channels in the future. We offer our customers a range of options on how we transact with them. We believe the flexibility we offer our customers further amplifies the value we bring to them.

Target Customers

Our target customers include independent power producers, government organizations, utilities, grid operators, as well as industrial and commercial organizations with sizeable electricity needs. Because of the unique advantages of our solutions-based approach with maximum optionality through its agnostic nature and agile architecture, we believe there is significant demand for our systems to help address the accelerating growth in global energy storage capacity.

Competition

We expect competition in energy storage technology to intensify due to a regulatory push for lower-carbon energy sources such as wind and solar, continuing globalization, and consolidation in the energy industry. We believe that the principal competitive factors in the energy storage market include:

- levelized cost of energy delivered;
- safety, reliability, and quality;
- product performance;
- historical track record and references for customer satisfaction;
- experience in utilizing the energy storage system for multiple stakeholders;
- innovation across a variety of technologies;
- comprehensive solution from a single provider;
- ease of integration; and
- seamless hardware and software-enabled service offerings.

Our key competitors within the shorter duration BESS market include Tesla, Inc., Fluence Energy, Inc., Powin Energy Corp., FlexGen Power Systems, Inc., and Sungrow Power Supply Co Ltd. Within the longer duration energy storage market there are system manufacturers with products in various states of viability utilizing various technologies including ESS Inc., Eos Energy Enterprises Inc., Hydrostor Inc., Primus Power, Form Energy, Inc., Gravitricity Ltd., and other solid-state battery manufactures.

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.

Intellectual Property

We rely on a combination of patent, trademark, copyright, unfair competition, and trade secret laws, as well as confidentiality procedures and contractual restrictions with our employees, contractors and third parties, to establish, maintain, and protect our proprietary rights. Our success depends in part upon our ability to obtain, maintain, and enforce proprietary protection for those aspects of our technology that provide us with a competitive advantage, to operate without infringing the proprietary rights of others, and to prevent others from infringing our proprietary rights.

We have developed a patent portfolio to protect certain elements of our proprietary technology. As of December 31, 2022, we had five issued patents and 14 patent applications pending in the U.S. Outside the U.S., we have three issued patents and 69 patent applications pending in other countries throughout the world. Our issued patents are expected to start expiring in 2039.

We primarily rely on copyright, trade secret laws, confidentiality procedures and contractual restrictions to protect our software. We also pursue the registration of our domain names and trademarks and service marks in the United States and internationally. As part of our overall strategy to protect our intellectual property, we may take legal actions to prevent third parties from infringing or misappropriating our intellectual property or from otherwise gaining access to our technology.

U.S. Government Regulation and Compliance

Although we are not regulated as a utility, federal, state, and local government statutes and regulations concerning electricity heavily influence the market for our product and services. These statutes and regulations often relate to electricity pricing, net metering, incentives, taxation, competition with utilities and the interconnection of customer-owned electricity generation. In the United States, governments continuously modify these statutes and regulations. Governments, often acting through state utility or public service commissions, change and adopt different rates for commercial customers on a regular basis. These changes could affect our ability to deliver cost savings to our current and future customers for the purchase of electricity.

Several states have an energy storage mandate or policies designed to encourage the adoption of energy storage. Energy storage installations are supported in certain states by state public utility commission policies that require utilities to consider alternatives such as energy storage before they can build a new generation facility. In February 2018, the Federal Energy Regulation Commission ("FERC") issued Order 841 directing regional transmission operators and independent system operators to remove barriers to the participation of energy storage in wholesale electricity markets and to establish rules to help ensure energy storage resources are compensated for the services they provide. An appeal of Order 841 filed by utility trade associations and other parties challenging the extent of FERC's jurisdiction over energy storage resources connected to distribution systems (among other issues) was denied by the U.S. Court of Appeals for the D.C. Circuit in July 2020.

Each of our installations or customer installations must be designed, constructed, and operated in compliance with applicable federal, state and local regulations, codes, standards, guidelines, policies, and laws. To install and operate energy storage systems on its platform, we, our customers or our partners, as applicable, are required to obtain applicable permits and approvals from local authorities having jurisdiction to install energy storage systems and to interconnect the systems with the local electrical utility.

Energy storage systems typically require interconnection agreements from the applicable local electricity utilities in order to operate. In almost all cases, interconnection agreements are standard form agreements that have been pre-approved by the local public utility commission or other regulatory body with jurisdiction over interconnection agreements. As such, no additional regulatory approvals are typically required once interconnection agreements are signed.

Our operations are subject to stringent and complex federal, state and local laws, and regulations governing the occupational health and safety of our employees and wage regulations. For example, we are subject to the requirements of the federal Occupational Safety and Health Act, as amended, and comparable U.S. state laws that protect and regulate employee health and safety.

There are government regulations pertaining to the disposal of hazardous materials. We and our suppliers, as applicable, are required to comply with these regulations to sell our systems into the market.

Environmental, Social, and Governance

We develop and deploy utility-scale energy storage solutions to help enable a sustainably energized world. We strive to support the creation of a world powered by renewable sources, balancing the need for more sustainable forms of energy with a continued need for energy reliability that intermittent renewable energy technologies can struggle to provide. The fundamental solutions we have developed focus on energy storage technologies for the clean energy transition, contributing to global efforts to combat climate change. Our goal is to develop cutting edge energy storage solutions that are powered by renewable sources.

The Company initiated a sustainability strategy in 2022, which began with an assessment to identify priority internal and external non-financial issues. This assessment highlighted environmental, social, and governance ("ESG") issues important to our internal and external stakeholders so that we can focus on meaningful actions, with the following issues identified as the most relevant for our operations:

- Sustainable resource use,
- Climate change mitigation, and
- Health, safety, and general well-being of Energy Vault employees and customers.

As a result, Energy Vault's sustainability strategy is based on three key topics:

- People,
- Products, and
- Partnerships

People

We recognize that people are a critical aspect and driver for why we do what we do. "People" includes our employees, customers, contractors, supply chain vendors, and the communities served by our solutions. We have implemented the ISO 26000 standard which is designed for businesses to operate in a socially responsible way and assist organizations in contributing to sustainable development. We are committed to the seven key principals of the ISO 26000 standard which include; accountability, transparency, ethical behavior, respect for stakeholders, rule of law, international norms, and

human rights. We believe that our work culture has fostered an environment where employees feel safe, are provided resources to be successful, and are empowered to perform their work.

Products

Offering products of good quality and that provide environmental benefits are the key to delivering energy storage solutions of which we can be proud. The foundation for the successful delivery of our energy storage solutions starts with quality and environmental management systems that are globally recognized and accepted. As part of delivering quality products, Energy Vault is certified to ISO 9001, a quality management standard that promotes a commitment to customer satisfaction, purpose-driven leadership, and equitable involvement for all employees. In addition, our commitment to improving the environment is demonstrated by our certification of the ISO 14001 standard, which requires an organization to implement and demonstrate compliance with an effective environmental management system to identify and control the environmental impact of its activities, products, and services; continually improve environmental performance; and implement a systematic approach to setting environmental objectives and targets.

We demonstrate our commitment to resource preservation and environmental impacts by investing significant resources into the research and development of low carbon materials, innovative construction practices, materials, and methods, and a strong push for circular economy solutions. We have performed several material science projects to reduce the carbon content of materials, introduce the use of waste materials in our mobile masses for GESS, understand end-of-life solutions, and contribute to a circular economy. Our energy storage systems have and will continue to undergo life cycle analysis based on ISO 14040 standards.

Partnerships

The Company believes that strong partnerships are a key to its success. Our partnerships are aligned with a shared pursuit to accelerate the decarbonization of our planet. This includes incorporating considerations from standards and sustainability frameworks such as the Internal Organization for Standardization (“ISO”), Global Reporting Initiative (“GRI”), and UN Sustainability Goals. We completed our first Corporate Sustainability Assessment with S&P Global and we will work closely with our vendors and partners to evaluate and assess all components and materials for a chain of custody that identifies responsible and ethical sourcing, environmental product declarations, and end-of-life solutions. For example, we have partnered with Cemex to reduce carbon content and test remediated waste in our GESS mobile masses and have created relationships with institutes of higher learning.

ESG Conclusion

Maintaining an environment of transparency and accountability allows us to share our passions and commitments with all of our stakeholders. Our strong dedication to sustainability and ESG is reflected by our plan to publish our inaugural 2022 Sustainability Report by the end of the second quarter of 2023, including information on greenhouse gas emissions, environmental impacts, responsible sourcing, governance, social, and community performance metrics.

Human Capital Management

Energy Vault’s stakeholders and employees share a common purpose to innovate energy storage technologies for the global transition to renewable energy. We aim to be earth-conscious in both our product development and in our everyday decisions and operations. We bring unique talents, skills, and experiences to create cutting-edge solutions and transformative technologies.

As of December 31, 2022, we employed 170 full-time employees and 7 part-time employees, based primarily in our offices in Lugano, Switzerland, Westlake Village, California, and Vienna, Virginia. To date, we have not experienced any work stoppages. None of our employees are represented by labor unions and one employee is subject to a collective bargaining agreement.

Our people have significant industry experience in their respective areas of focus. During the past fiscal year, Energy Vault has implemented several human capital management systems to onboard our people. Additionally, we have added employee benefits over the past year to improve employee experience and satisfaction.

Corporate Information

We file or furnish periodic reports and amendments thereto, including our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, proxy statements, and other information with the Securities and Exchange Commission (“SEC”). In addition, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically. Our website is located at *http://energyvault.com* and our reports, amendments thereto, proxy statements, and other information are also made available, free of charge, on our investor relations website at http://https://investors.energyvault.com as soon as reasonably practicable after we electronically file or furnish such information with the SEC. The information posted on our website is

not incorporated by reference into this Annual Report or any of our other securities filings unless specifically incorporated herein by reference.

Item 1A. Risk Factors

Certain factors may have a material adverse effect on our business, financial condition, results of operations, and prospects. You should carefully consider the risks and uncertainties described below, as well as the other information in this Annual Report, including our consolidated financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The occurrence of any of the events or developments described below, or of additional risks and uncertainties not presently known to us or that we currently deem immaterial, could materially and adversely affect our business, results of operations, financial condition, and prospects. In such an event, the market price of our securities could decline, and you could lose all or part of your investment.

Risk Factor Summary

Below is a summary of the principal factors that make an investment in our common stock speculative or subject to risk. This summary does not address all of the risks facing our business. You should consider the risks in this summary together with the detailed discussion of risks that immediately follows this summary in this section titled "*Risk Factors,*" as well as the other information in this Annual Report on Form 10-K.

- Our limited operating history and our rapidly evolving industry make it difficult to evaluate our business, the risks and challenges we may face, and future prospects.
- The engineering of our systems is in continuous refinement to improve system cost and efficiency. There is no guarantee that we will be successful in implementing all improvements under the expected schedule.
- Our GESSs are based on established principles that are deployed in a novel way to create new technologies to store energy and potential customers may be hesitant to make a significant investment in our technology or abandon the technology they are currently using.
- Our systems' performance may not meet our customers' expectations or needs.
- There is no assurance that non-binding letters of intent and other indications of interest, including awards, submitted proposals or short-lists, will result in binding orders or sales. Customers may cancel or delay the non-binding letters of intent and other indications of interest in our sales pipeline. As a result, our operating results and cash flows may be materially lower than our expected results of operations.
- The failure or inability of our suppliers to deliver necessary components or raw materials for construction of our energy storage systems and their failure or inability to deliver them in a timely manner could cause installation delays, cancellations, penalty payments and damage to our reputation.
- Our business is subject to risks associated with construction, cost overruns and delays, including those related to obtaining government permits and approvals, electrical interconnection, and other contingencies that may arise in the course of completing installations.
- During an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022, management identified a material weakness in our internal control over financial reporting. If we continue to fail to maintain proper and effective internal controls over financial reporting or are unable to remediate the material weakness in our internal control over financial reporting, our ability to produce accurate and timely financial statements could be impaired, and investors' views of us could be harmed.
- We are an early stage company with a history of losses, and expect to incur significant expenses and continuing losses for the foreseeable future, and we may not be able to achieve profitability in the future.
- Our total backlog and bookings may not be indicative of our future revenue, which could have a material adverse impact on our business, financial condition, and results of operations.
- Our energy storage systems involve a lengthy sales and installation cycle, and if we fail to close sales on a regular and timely basis it could harm our business. Moreover, the long sales cycles for our energy storage systems may cause us to incur significant expenses without offsetting revenues.
- Our systems include complex software and technology systems and do not have a meaningful history of operation, and there can be no assurance such systems and technology will perform as expected or that software, engineering or other technical defects will not be discovered until after a system is installed and operated by a customer. If our energy storage systems contain manufacturing or construction defects, our business and financial results could be harmed. In addition, the development and updating of these systems will require us to incur potentially significant costs and expenses.

- If any of our products are or are alleged to be defective in design or manufacturing or experience other failures, we may be compelled to undertake corrective actions, which could adversely affect our business, prospects, operating results, reputation and financial condition.
- The failure or inability of our suppliers to deliver necessary components or raw materials for construction of our energy storage systems and their failure or inability to deliver them in a timely manner could cause installation delays, cancellations, penalty payments and damage to our reputation.
- Our business is subject to risks associated with construction, cost overruns and delays, including those related to obtaining government permits and approvals, electrical interconnection, and other contingencies that may arise in the course of completing installations.

Risks Related to Our Business and Our Industry

Our limited operating history and our rapidly evolving industry make it difficult to evaluate our business, the risks and challenges we may face and future prospects.

From our inception in October 2017 through the first half of 2022, we focused principally on developing and proving our fundamental gravity energy storage technology, including our GESS, which we are seeking to further refine and commercialize. Beginning in 2022, we expanded our offerings to include BESSs and gHESSs. We have built only one GESS to date, the EV1 Tower in Lugano, Switzerland (the "CDU"), which served as a commercial demonstration unit until its decommissioning in September 2022. We have not fully deployed any other systems as of the date of this Annual Report, although we have signed contracts to deliver BESSs and to own and operate through a tolling arrangement a green hydrogen plus battery energy storage system (further described in "Recent Developments" within Management's Discussion and Analysis section). As a result, we have a limited history operating our business and constructing energy storage systems, and therefore a limited history upon which you can base an investment decision.

Our future growth in a nascent and rapidly-evolving industry is dependent on a number of factors, including rising demand for clean electric power solutions that can provide electric power with lower carbon emissions and replacement of conventional generation sources and the adoption speed of digital software applications to modernize the efficiency of power assets and the electric grid. Among other renewable energy market trends, we expect our business results to be driven by declines in the cost of generation of renewable power, decreases in the cost of manufacturing battery modules and cells, customer needs for services and digital applications, commercial, legal, regulatory, and political pressure for the reduced use of and reliance on fossil fuels and electric power generation that relies on fossil or other non-renewable fuels, and a rapidly growing energy storage market driven by increasing demand from utilities, independent power producers, and large energy users. However, predicting future revenues and appropriately forecasting and budgeting for our expenses is difficult, and we have limited operating history to predict trends that may emerge and take hold and materially affect our business. In particular, global inflationary pressures in the last year have disrupted the historical trend of declining renewable energy costs and declining battery costs, and it is unclear when, or if, our market segment will return to the historical trend of declining costs. Our future operations and strategy is therefore subject to all of the risks inherent in light of the expenses, difficulties, complications and delays frequently encountered in connection with the growth of any new business in a nascent industry, as well as those that are specific to our business in particular.

We have experienced rapid internal growth and expect to invest in our growth for the foreseeable future. If we fail to manage our growth effectively, our business and operating results may suffer.

In recent periods, our internal operations have grown in terms of complexity and the number of our employees, and we intend to continue such investment for the foreseeable future. The growth and expansion of our business has placed and continues to place a strain on management, operations, financial infrastructure, and corporate culture. In the event of further growth, our information technology systems and our internal control over financial reporting and procedures may not be adequate to support our operations and may introduce opportunities for data security incidents that may interrupt business operations and permit bad actors to obtain unauthorized access to business information or misappropriate funds. We may also face risks to the extent such bad actors infiltrate the information technology infrastructure of our contractors.

To manage growth in operations and personnel, we will need to continue to improve our operational, financial and management controls and reporting systems and procedures. Failure to manage growth effectively could result in difficulty or delays in attracting customers, declines in quality or customer satisfaction, increases in costs, difficulties in introducing new products and services or enhancing existing products and services, loss of customers, information security vulnerabilities or other operational difficulties, any of which could adversely affect our business and results of operations.

Our projections are subject to significant risks, assumptions, estimates and uncertainties. As a result, our projected revenues, market share, expenses and profitability may differ materially from our expectations.

Our projections are subject to significant risks, assumptions, estimates and uncertainties. Such projections reflect our current views with respect to future events or our future financial performance, are based on assumptions, and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by our projections. We may not actually achieve the plans, expectations or objectives contained in our projections, and the underlying assumptions may prove incorrect. Such deviations may be due to factors outside our control or currently unknown to us. For example, our actual revenues, market share, timing for achieving business milestones, expenses and profitability may differ materially from our expectations. Therefore, undue reliance should not be placed on any of our projections.

Our business model depends on acceptance of our technology by our customers, retaining existing customers, and the success of our business model .

As a recent market entrant in a developing industry, our results of operations and financial condition are dependent upon our success in establishing or entering new markets, developing and commercializing our energy storage systems, and undertaking marketing activities. We face significant risks associated with our business strategy of targeting utilities, independent power producers, and large energy users and deploying our energy storage system systems at a scale that leads to broad market acceptance and profitability. Furthermore, during 2022, we expanded our offering to include not only GESSs, but also BESSs and gHESS offerings. The relative success of these systems will be dependent upon a number of factors, including their ability to provide our customers with reliable and dependable energy storage for the durations that they require, while still being cost-effective.

We depend on a limited number of customers for the majority of our revenue, and the loss of any one of these customers could substantially reduce our revenue and impact our liquidity.

The loss of any significant customers or partners or reduction in our business activities could cause our revenues to decrease significantly and increase our losses from operations. If our products are not successful and we cannot broaden our customer base, we will continue to depend on a few customers for the majority of our revenues. Additionally, if we are unable to negotiate favorable business terms with these customers in the future, our revenues and gross profits may be insufficient to allow us to achieve and/or sustain profitability, continue operations, or remain a going concern.

The engineering of our systems is in continuous refinement to improve system cost and efficiency. There is no guarantee that we will be successful in implementing all improvements under the expected schedule.

Our business depends on our ability to succeed in implementing our energy storage systems and introduce innovative and competitive energy storage technologies. As of the date of this Annual Report, we have not deployed a fully operational energy storage system. As our energy storage systems are highly complex, this process is costly and time-consuming.

Any future full energy storage deployments may incur more costs than we expect. Our business, reputation, results of operations and financial condition may be materially adversely affected if we do not successfully implement our systems or to the extent that such implementation occurs later or costs more than we expect. Examples of costs that we cannot control include the costs of electronics due to global allocation shortages or costs associated with construction delays.

If we are not able to reduce our cost structure in the future, our ability to become profitable may be impaired.

Over time, we must effectively manage the manufacturing costs for our energy storage systems to expand our market. While we have sought, and will continue to seek, to manage our manufacturing and services costs, the cost of components and raw materials, for example, could increase in the future. 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. We may continue to make significant investments to drive growth in the future. To the extent that the price of electricity from the grid is low in certain markets, we will need to continue to reduce our costs to maintain our expected margins in those markets. 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 sufficiently in the future, we may not be able to achieve profitability, which could have a material adverse effect on our business and prospects.

Operational costs can be difficult to predict and may include costs from requirements related to the decommissioning of our systems.

We rely heavily on complex machinery for our operations and our production involves a significant degree of uncertainty and risk in terms of operational performance and costs. When fully operational, our energy storage systems will consist of large-scale machinery comprised of many components assembled on-site for our customers. The components of our energy storage systems are likely to suffer unexpected malfunctions from time to time and will depend on repairs and spare parts to resume operations, which may not be available when needed. Unexpected malfunctions of our energy storage systems or their constituent components may significantly affect the intended operational efficiency and performance. In addition, our energy storage systems may need to be decommissioned from time to time, and the related costs could be significant given the expected size and complexity of our energy storage systems. Operational performance and costs, including those related to project stoppage, can be difficult to predict and are often influenced by factors outside of our control, such as, but not limited to, scarcity of natural resources, environmental hazards and remediation, costs associated with construction, commissioning, testing or decommissioning of machines, labor disputes and strikes, difficulty or delays in obtaining governmental permits, damages or defects in electronic systems, industrial accidents, fire, seismic activity and natural disasters. Should operational risks materialize, it may 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, environmental damage, administrative fines, increased insurance costs and potential legal liabilities, all which could have a material adverse effect on our business, results of operations, cash flows, financial condition or prospects.

Our energy storage systems have significant upfront costs, and our customers may need to obtain financing to help finance purchases. If our customers are unable to procure third-party financing or if the cost of such financing exceeds our estimates, our business would be adversely affected.

Our energy storage systems have significant upfront costs, and certain customers may need, or may prefer to acquire, third-party financing to purchase our systems.

Therefore, our growth, including the deployment of our energy storage systems, may to an extent depend on our customers' ability to attract third-party financing partners. Their ability to obtain third-party financing depends on many factors that are outside of our control, including the ability of third parties to utilize tax credits and other government incentives, interest rate and/or currency exchange fluctuations, their perceived creditworthiness and the condition of credit markets generally. We expect that the financing of customer purchases of our energy storage systems will be subject to customary conditions such as the customer's credit quality, and if these conditions are not satisfied, such customers may be unable to finance purchases of our energy storage systems, which would have an adverse effect on our revenue in a particular period. To the extent our customers are unable to arrange future financings for any of our current or potential projects, our business would be negatively impacted.

In attempting to attract new customers to support our growth, we intend to refine our customer agreements based on experience. Moreover, new types of product offerings may require our customers to find partners willing to finance these new projects, which may have different terms and financing conditions from prior transactions. If the terms of these transactions or the structure of these projects fails to attract financiers, we may not be able to proceed with growing our business and our potential for growth may be limited. Additionally, financing options are also limited by the customer's willingness to commit to making fixed payments regardless of the performance of the energy storage systems or our performance of our obligations under the customer agreement

Further, our sales process for transactions that require financing require that we and our customers make certain assumptions regarding the cost of financing capital. If the cost of financing ultimately exceeds our estimates, we may be unable to proceed with some or all of the impacted projects or our revenue from such projects may be less than our estimates. Actual financing costs for potential customers may vary from our estimates due to factors outside of our control, including changes in customer creditworthiness, macroeconomic factors, the returns offered by other investment opportunities available to our financing partners, and other factors.

If our customers are unable to procure financing partners willing to finance deployments of our products or if the cost of such financing exceeds our estimates, our business would be negatively impacted.

The economic benefit of our energy storage systems to our customers depends on the cost of electricity available from alternative sources, including local electric utility companies, which cost structure is subject to change.

The economic benefit of our energy storage systems to our customers includes, among other things, the benefit of reducing such customer's payments to the local electric utility company. The rates at which electricity is available from a customer's local electric utility company is subject to change and any changes in such rates may affect the relative benefits of our energy storage systems. Further, the local electric utility may impose "departing load," "standby" or other charges on our customers in connection with their acquisition of our energy storage systems, the amounts of which are outside of our control and which may have a material impact on the economic benefit of our energy storage systems to our customers. Changes in the rates offered by local electric utilities and/or in the applicability or amounts of charges and other fees

imposed by such utilities on customers acquiring our energy storage systems could adversely affect the demand for our energy storage systems.

Additionally, the electricity stored and released by our systems may not currently be cost-competitive in some geographic markets, and we may be unable to reduce our costs to a level at which our energy storage systems would be competitive in such markets. As such, unless the cost of electricity in these markets rises or we are able to generate demand for our energy storage systems based on benefits other than electricity cost savings, our potential for growth may be limited.

Our GESSs are based on established principles that are deployed in a novel way to create new technologies to store energy and potential customers may be hesitant to make a significant investment in our technology or abandon the technology they are currently using.

The design of our GESSs are based on established principles that are deployed in a novel way; the GESSs are intended to provide longer energy storage durations than are provided by other types of energy storage systems. We believe that the continued growth and acceptance of energy storage generally will depend significantly on continued investment by the public and private sectors in the renewable energy industry, the regulatory environment focused on transitioning away from carbon-intensive power generation and the speed of transition towards electric mobility.

The adoption of renewable energy may not proceed as quickly as (or at the levels that) we expect and may be influenced by changes in regulatory environments, including incentives, fuel prices, public policy concerns and other factors beyond our control. Additionally, potential customers who previously invested in alternatives to our GESS solution may not deem a transition to our existing or future GESS solutions to be cost-effective. Moreover, given the limited history of our GESS technology, potential customers may be hesitant to make a significant investment in our products. Our business, results of operations, financial condition and prospects could be adversely affected to the extent that customers, for any reason, do not adopt our systems or migrate to our systems from another energy storage technology.

Our energy storage systems' performance may not meet our customers' expectations or needs.

Our energy storage systems will be subject to various operating risks that may cause them to generate less value for our customers than expected. These risks include a failure or wearing out of our equipment or the equipment that our equipment connects into, an inability to find suitable replacement equipment or parts, or disruption in our distribution systems. Any extended interruption or failure of our customer's projects, including systems we operate under long term service agreements, for any reason to generate the expected amount of output could adversely affect our business, financial condition and results of operations. In addition, our customers' willingness to acquire additional systems or services from us may be impacted in the future if any of our systems incur operational issues that indicate expected future cash flows from the system are less than the carrying value. Any such outcome could adversely affect our operating results or ability to attract new customers.

If our estimates of the useful life for our energy storage systems are inaccurate or we do not meet service and warranties and performance guarantees, our business and financial results could be adversely affected.

We expect to provide warranties and performance guarantees of our systems. To date, we have only deployed our CDU, and we have not deployed any fully operational energy storage systems, and our estimates about product performance and life may prove to be incorrect. Failure to meet these warranties and performance guarantee levels may require the purchase price to be adjusted downward based on agreed-upon performance targets, or require us to make cash payments to the customer based on actual performance, as compared to expected performance.

Through Energy Vault Solutions, we intend to continue exploring, the potential for offering, as a standalone product, a digital platform that helps energy storage businesses make decisions on optimizing their systems bidding and dispatch. We are in the developmental phase of such a digital platform, and there is no assurance that a market for such a digital platform exits or that it would be as beneficial to our customers as we expect.

Through Energy Vault Solutions, we are in the development stage of exploring the potential for offering as a standalone product, a digital platform that could help energy storage businesses optimize their systems bidding and dispatch. We have begun developing this platform and we intend to continue this exploration. Even after we spend time and resources to develop such a digital platform and to explore the market potential for such a digital platform, there is no assurance that we will develop a product that can be sold on terms that are commercially acceptable to us. Moreover, even if we develop the digital platform and enter into sales agreements for it, these agreements may not be as beneficial to us as we expected at the time of entering into the underlying agreement. Any of the foregoing may adversely affect our business, financial condition, results or operations and prospects.

We intend to explore alternative, co-active use case opportunities for our systems, but there is no assurance that such opportunities exist or that they would be as beneficial to us as we expect.

We intend to explore alternative, co-active use case opportunities for our energy storage systems. For example, we intend to explore opportunities in energy-intensive industries such as vertical farming, data centers, direct air carbon capture where our systems may be able to benefit from existing infrastructure, including physical enclosures and electrical systems, that are built into the designs for our energy storage systems. Even after we spend time and resources exploring such opportunities, there is no assurance that they exist on terms that are commercially acceptable to us. Moreover, even if we enter into agreements to make use of such opportunities, such opportunities may not be as beneficial to us as we expected at the time of entering into the underlying agreement. Any of the foregoing may adversely affect our business, financial condition, results or operations and prospects.

There is no assurance that non-binding letters of intent and other indications of interest, including awards, submitted proposals or short-lists, will result in binding orders or sales. Customers may cancel or delay the non-binding letters of intent and other indications of interest in our sales pipeline. As a result, our operating results and cash flows may be materially lower than our expected results of operations.

Our success depends on our ability to generate revenue and operate profitably, which depends in part on our ability to identify target customers and convert such contacts into meaningful orders or expand on current customer relationships. To date, we have not deployed any fully operational energy storage systems (aside from the CDU), although we are performing on customer contracts to construct energy storage systems. While our contracts do provide that our customers will be obligated to pay us certain fees in the event of termination for their convenience, such fees may not be sufficient to cover our costs and we would not realize the expected revenue associated with such cancelled contracts. Potential and contracted customers may abandon their indications of interest, or fail to honor contractual obligations and non-binding letters of interest may be cancelled or delayed by a customer for any reason or its terms may be amended in an manner adverse to us in connection with negotiating a definitive sales agreement. For that reason, there can be no assurance that any current or future indications of interest (including awards, submitted proposals or short-lists) or non-binding letters of intent will result in binding orders or sales. Furthermore, in light of our limited operating history, it is difficult for us to predict the rates at which the non-binding letters of intent or other indications of interest in our pipeline will result in binding orders or sales. It is also difficult for us to predict how quickly we will be able to fill binding orders in the event that we obtain multiple orders. In addition, revenue is expected to be recognized in stages, and customers may in some cases delay actual cash payments regardless of progressive billings. Additionally, a customer’s ability to make payments could decline during the sales process, even to the point of insolvency or bankruptcy. As a result, our operating results and cash flow may be materially lower than we expect.

Our future growth depends upon our ability to maintain relationships with third parties, and the terms and enforceability of many of these relationships are not certain.

We expect to rely on engineering, procurement, construction, or EPC, firms as third-party general contractors to install energy storage systems at our customers’ sites. We are likely to work with a limited number of such EPC firms, which may impact our ability to facilitate customer installations as planned. Our work with contractors or their sub-contractors may have the effect of our being required to comply with additional rules (including rules unique to our customers), working conditions, site remediation and other union requirements, which can add costs and complexity to an installation project. In the future, the timeliness, thoroughness and quality of installation-related services performed by our general contractors and their sub-contractors may not meet our expectations and standards and it may be difficult to find and train third-party general contractors that meet our standards at a competitive cost.

In addition, a key component of our growth strategy is to develop or expand our relationships with third parties. For example, we are investing resources in establishing strategic relationships with market players across a variety of industries, including, large renewable project developers, commercial agents, environmental organizations and unions, to generate new customers or to grow our business. These programs may not roll out as quickly as planned or produce the results we anticipated. A significant portion of our business depends on attracting new partners and retaining existing partners, and such relationships may not be predicated on enforceable agreements or any agreements at all.

We depend upon component and product manufacturing and logistical services provided by third parties, many of whom are located outside of the U.S.

A significant amount of our components, including batteries utilized in our BESS offerings, and products are manufactured in whole or in part by a few third-party manufactures. Many of these manufacturers are located outside of the U.S. and are all located within a relatively small geographic location. If a catastrophic event occurs within this area, or the social or economic conditions shift within this geography, we could experience business interruptions, delayed delivery of products, or other adverse impacts to our ongoing business. We have also outsourced much of our transportation and logistics management. While these arrangements may lower operating costs, they also reduce our direct control over production and distribution. Such diminished control could have an adverse effect on the quality or quantity of our products as well as our flexibility to respond to changing conditions. In addition, we rely on third-party manufacturers to adhere to the terms and

conditions of the agreements in place with each party. For example, although arrangements with such manufacturers may contain provisions for warranty expense reimbursement, we may remain responsible to the customer for warranty service in the event of product defects. Any unanticipated product or warranty liability, whether pursuant to arrangements with contract manufacturers or otherwise, could adversely affect our reputation, financial condition, and operating results.

The failure or inability of our suppliers to deliver necessary components or raw materials for construction of our energy storage systems and their failure or inability to deliver them in a timely manner could cause installation delays, cancellations, penalty payments and damage to our reputation.

We rely on a limited number of third-party suppliers for some of the components and raw materials such as steel, cement, polymers and, in certain cases, coal ash waste and retired wind turbine blades, and other materials that may be of limited supply for our GESSs and batteries, inverters, enclosures, and transformers for our BESSs. If any of our suppliers fail or are unable to provide sufficient components or raw materials at the level of quality required, or if our suppliers fail or are unable to or unwilling to provide us with the contracted quantities (as we have limited or in some case no alternatives for supply), or if our suppliers cancel the contracted quantities without sufficient lead time to order the materials from another supplier, or if our suppliers fail or are unable to deliver the components or raw materials in a timely manner, then delays, cancellations, penalty payments, or damage to our reputation could occur, which could have a material adverse effect on our business and our results of operations. If we fail to develop or maintain our relationships with any of our suppliers, or if there is otherwise a shortage, lack of availability, or cancellation of the purchase of any required raw materials or components, we may be unable to manufacture our energy storage systems or such products may be available only at a higher cost or after a long delay. Additionally, there are increasing expectations in various jurisdictions that companies monitor the environmental and social performance of their suppliers, including compliance with a variety of labor practices, as well as consider a wider range of potential environmental and social matters, including the end of life considerations for products. Compliance can be costly, require us to establish or augment programs to diligence or monitor our suppliers, or to design supply chains to avoid certain regions altogether. Failure to comply with such regulations can result in fines, reputational damage, import ineligibility for our products or product components, or otherwise adversely impact our business. Current or future supply chain interruptions that could be exacerbated by global political tensions, such as the situation in Ukraine, and public health emergencies, could also negatively impact our ability to acquire necessary raw materials and components. Such delays could prevent us from delivering our energy storage systems to customers within required time frames and cause order cancellations. Developing required raw materials and constructing required components for our products are time and capital intensive. Accordingly, the number of suppliers we have for some of our components and materials is limited and, in some cases, sole sourced. We may be unable to obtain comparable components from alternative suppliers without considerable delay, expense, or at all. If our suppliers face difficulties obtaining the credit or capital necessary to expand their operations when needed, they could be unable to supply necessary raw materials and components needed to support our planned sales and services operations, which would negatively impact our sales volumes and cash flows.

Our systems often rely on interconnections to distribution and transmission facilities that are owned and operated by third parties, and as a result, are exposed to interconnection and transmission facility development and curtailment risks.

A primary potential use case for our energy storage systems involves interconnection with electric distribution and transmission facilities owned and operated by regulated utilities, and independent system operators, necessary to deliver the electricity that our energy storage systems produce. A failure or delay in the operation or development of these distribution or transmission facilities could result in a loss of revenues or breach of a contract because such a failure or delay could limit the amount of renewable electricity that our energy storage systems deliver or delay the completion of our customers' construction projects. In addition, certain of our energy storage systems' generation may be curtailed without compensation due to distribution and transmission limitations, reducing our revenues and impairing our ability to capitalize fully on a particular customer project's potential. Such a failure or curtailment at levels above our expectations could adversely affect our business.

Our business is subject to risks associated with construction, cost overruns and delays, including those related to obtaining government permits and approvals, electrical interconnection, and other contingencies that may arise in the course of completing installations.

Our business is subject to risks relating to construction, cost overruns and delays. The installation and operation of our energy storage systems at a particular site is generally subject to oversight and regulation in accordance with national, state and local laws and ordinances relating to building codes, safety, environmental protection, FERC and specific Independent System Operators regulation and related matters, and typically requires obtaining and keeping in good standing various local and other governmental approvals and permits, including environmental approvals and permits, that vary by jurisdiction. In some cases, these approvals and permits require periodic renewal. It is difficult and costly to track the

requirements of every individual authority having jurisdiction over energy storage system installations, to design our energy storage systems to comply with these varying standards, which may change over time, and for customers to obtain all applicable approvals and permits. We cannot predict whether or when all permits required for a given customer's project will be granted or whether the conditions associated with the permits will be achievable. The denial of a permit or utility connection essential to a project or the imposition of impractical conditions would impair our customer's ability to develop the project. In addition, we cannot predict whether the permitting process will be lengthened due to complexities and appeals. Delay in the review and permitting process for a project can impair or delay our customers' abilities to develop that project or increase the cost so substantially that the project is no longer attractive to our customers. Furthermore, unforeseen delays in the review and permitting process could delay the timing of the installation of our energy storage systems and could therefore adversely affect the timing of the recognition of revenue related to hardware acceptance by our customer, which could adversely affect our operating results in a particular period. Delays relating to constructions may also bring about cost overruns, which could further adversely affect our business.

In addition, the successful installation of our energy storage systems is dependent upon the availability of and timely connection to the local electric grid. Before beginning construction on an energy storage system, we may be unable to obtain in a timely fashion or at all the required consent and authorization of local utilities to ensure successful interconnection to energy grids to enable the successful discharge of renewable energy to customers. Any delays in our customers' ability to connect with utilities, delays in the performance of installation-related services or poor performance of installation-related services will have an adverse effect on our results and could cause operating results to vary materially from period to period.

The size of our GESSs may negatively impact our ability to enter into contracts with customers or obtain government permits and approvals.

Our GESSs require a considerably larger space for their deployment than comparable systems based on certain technologies such as lithium-ion technology, and this can result in a significant delay in the permitting process. In addition, the size of our GESSs may represent an impediment for deployment in denser areas or areas with restrictions on the height of buildings. And, in light of the size of our systems, we generally require hard soil or the ability to get to bedrock in order to deploy our systems. These factors may negatively impact our ability to enter into customer contracts or obtain government permits and approvals, each of which may materially affect our business.

We face additional risks to the extent that customers choose to purchase energy storage and dispatch of electricity from systems we build and in which we retain an ownership interest rather than purchase an energy storage system.

In certain circumstances we expect to enter tolling arrangements in which customers purchase the energy storage and dispatch of electricity from us while we retain an ownership interest in the system. To date, we have entered into one such tolling arrangement in respect to a battery plus green hydrogen hybrid energy storage system.

We could face additional risks when we own and operate energy storage systems, compared to when the customer owns and operates energy storage systems that we build. For example, we may need to seek equity and/or debt financing to fund the construction and operation of any energy storage systems built in connection with a project for a customer who chooses to enter into a tolling arrangement. Such financing may not be available on terms acceptable to us, if at all. Moreover, we expect that any such indebtedness would be secured by a lien on the related energy storage system, and the governing debt agreement may contain covenants imposing operating and financial restrictions on our operations. In addition, until any such debt is repaid, we may not be able to generate meaningful cash flow from the project. Moreover, the failure of our customers to make payments could trigger an event of default under such governing debt agreements, which could result in the acceleration of repayment of our outstanding indebtedness or even entitle our lender to foreclose on the collateral securing our debt. In addition, to the extent equity financing is also used, our right to receive cash flows from the project could be subordinated to the other equity investors.

Additionally, there could be a material adverse effect on our operating results and our cash flows to the extent we own and operate our energy storage systems for the benefit of customers under tolling arrangements. For example, we would not expect to receive any payments from the customer until the system is completed and expenses relating to insurance premiums, personnel, and our interest payments under debt agreements would be increased, and such increases may be material. We could also be required to provide ongoing maintenance and repair services or could face liability for any damages or injuries if the system malfunctions. Additionally, we would be subject to the risks of termination of the agreement by the customer and the inability to replace the customer would result in the system failing to generate revenue. We may also incur liabilities as a result of a performance failure or other breach of our obligations in connection with the operation of the system.

We may also be subject to additional legal and regulatory restrictions to the extent we own and operate an energy storage system, including relating to the transmission of energy. Such legal and regulatory restrictions could increase the costs of

compliance and potentially subject us to threatened or actual litigation or administrative proceedings, each of which could have a material adverse effect on our business, operating results and financial condition.

Although we don't expect a significant majority of our revenue to come from owning and operating energy storage systems based on our current outlook, there is no assurance that this type of revenue will not account for a significant portion of our business in the future.

Increasing attention to, and scrutiny of, ESG matters could increase our costs, harm our reputation, impact our share price or access to or cost of capital, or otherwise adversely impact our business.

Companies across industries are facing increasing scrutiny from a variety of stakeholders related to their ESG and sustainability practices. Expectations regarding voluntary ESG initiatives and disclosures and consumer demand for alternative forms of energy may result in increased costs (including but not limited to increased costs related to compliance, stakeholder engagement, contracting and insurance), changes in demand for certain products, enhanced compliance or disclosure obligations, or other adverse impacts to our business, financial condition, or results of operations.

While we may at times engage in voluntary initiatives (such as voluntary disclosures, certifications, or goals, among others) to improve the ESG profile of our company or to respond to stakeholder expectations, such initiatives may be costly and may not have the desired effect. Expectations around company's management of ESG matters continues to evolve rapidly, in many instances due to factors that are out of our control. For example, we may ultimately be unable to complete certain initiatives or targets, either on the timelines initially announced or at all, due to technological, cost, or other constraints, which may be within or outside of our control. Moreover, actions or statements that we may take based on based on expectations, assumptions, or third-party information that we currently believe to be reasonable may subsequently be determined to be erroneous or be subject to misinterpretation. If we fail to, or are perceived to fail to, comply with or advance certain ESG initiatives (including the timeline and manner in which we complete such initiatives), we may be subject to various adverse impacts, including reputational damage and potential stakeholder engagement and/or litigation, even if such initiatives are currently voluntary. For example, there have been increasing allegations of greenwashing against companies making significant ESG claims due to a variety of perceived deficiencies in performance or methodology, including as stakeholder perceptions of sustainability continue to evolve.

Certain market participants, including major institutional investors and capital providers, use third-party benchmarks and scores to assess companies' ESG profiles in making investment or voting decisions. Unfavorable ESG ratings could lead to increased negative investor sentiment towards us, which could negatively impact our share price as well as our access to and cost of capital. To the extent ESG matters negatively impact our reputation, it may also impede our ability to compete as effectively to attract and retain employees or customers, which may adversely impact our operations. In addition, we expect there will likely be increasing levels of regulation, disclosure-related and otherwise, with respect to ESG matters. In addition, we expect there will likely be increasing levels of regulation, disclosure-related and otherwise, with respect to ESG matters. This and other stakeholder expectations will likely lead to increased costs as well as scrutiny that could heighten all of the risks identified in this risk factor. Additionally, many of our customers and suppliers may be subject to similar expectations, which may augment or create additional risks, including risks that may not be known to us.

Should we pursue acquisitions in the future, it would be subject to risks associated with acquisitions.

We may acquire additional assets, products, technologies, or businesses that are complementary to its existing business. The process of identifying and consummating acquisitions and the subsequent integration of new assets and businesses into our own business would require attention from management and could result in a diversion of resources from its existing business, which in turn could have an adverse effect on its operations. Acquired assets or businesses may not generate the expected financial results. Acquisitions could also result in the use of cash, potentially dilutive issuances of equity securities, the occurrence of goodwill impairment charges, amortization expenses for other intangible assets and exposure to potential unknown liabilities of the acquired business.

If we complete future acquisitions, we may not ultimately strengthen our competitive position or achieve our goals and business strategy. We may be subject to claims or liabilities assumed from an acquired company, product, or technology; acquisitions we complete could be viewed negatively by our customers, investors, and securities analysts; and we may incur costs and expenses necessary to address an acquired company's failure to comply with laws and governmental rules and regulations. Additionally, we may be subject to litigation or other claims in connection with the acquired company, including claims from terminated employees, former stockholders or other third parties, which may differ from or be more significant than the risks our business faces. If we are unsuccessful at integrating future acquisitions in a timely manner, or the technologies and operations associated with such acquisitions, our revenue and operating results could be adversely affected. Any integration process may require significant time and resources, which may disrupt our ongoing business and divert management's attention, and we may not be able to manage the integration process successfully or in a timely manner. We may not successfully evaluate or utilize the acquired technology or personnel, realize anticipated synergies

from the acquisition, or accurately forecast the financial impact of an acquisition transaction and integration of such acquisition, including accounting charges and any potential impairment of goodwill and intangible assets recognized in connection with such acquisitions. We may have to pay cash, incur debt, or issue equity or equity-linked securities to pay for any future acquisitions, each of which could adversely affect our financial condition or the market price of our common stock. Furthermore, the sale of equity or issuance of equity-linked debt to finance any future acquisitions could result in dilution to our stockholders. The occurrence of any of these risks could harm our business, operating results, and financial condition.

Our operations are international, and expanding operations in some international markets could expose us to additional risks.

Our operations are international, and we continue to expand our business internationally as we seek to partner with customers, suppliers and other partners around the world. We currently have operations in Switzerland, and our signed purchase order and letters of intent are with counterparties around the world. Managing further international expansion will require additional resources and controls including additional support, manufacturing, and assembly facilities. Any expansion internationally could subject our business to risks associated with international operations, including:

- conformity with applicable business customs, including translation into foreign languages and associated expenses;
- lack of availability of government incentives and subsidies;
- challenges in arranging, and availability of, financing for our customers;
- potential changes to our established business model;
- cost of alternative power sources, which could be meaningfully lower outside the United States;
- availability and cost of raw materials, labor, equipment for manufacturing or assembling our energy storage systems;
- difficulties in staffing and managing foreign operations in an environment of diverse culture, laws, and customers, and the increased travel, infrastructure, and legal and compliance costs associated with international operations;
- installation challenges which we have not encountered before which may require the development of a unique model for each country;
- compliance with multiple, potentially conflicting and changing governmental laws, regulations, and permitting processes including construction, environmental, banking, employment, tax, privacy, safety, security, grid minimum performances, and data protection laws and regulations;
- compliance with U.S. and foreign anti-bribery laws including the Foreign Corrupt Practices Act and the U.K. Anti-Bribery Act;
- greater difficulties in securing or enforcing our intellectual property rights in certain jurisdictions, or greater chance potential infringement of third-party intellectual property rights in new jurisdictions;
- difficulties in funding our international operations;
- difficulties in collecting payments in foreign currencies and associated foreign currency exposure;
- restrictions on repatriation of earnings;
- compliance with potentially conflicting and changing laws of taxing jurisdictions where we conduct business and compliance with applicable U.S. tax laws as they relate to international operations, the complexity and adverse consequences of such tax laws, and potentially adverse tax consequences due to changes in such tax laws;
- increases or decreases in our expenses caused by fluctuation in foreign currency exchange rates;
- changes in import tariffs imposed by local governments;
- changes in regulations regarding the use of waste materials in our products;
- changes in regulations that would prevent us from doing business in specified countries;
- failure of the supply chain in local countries to provide us with materials of a sufficient quality and quantity delivered on timelines we expect;
- the outbreak of war or other hostilities; and

- regional economic and political conditions.

As a result of these risks, any potential future international expansion efforts that we may undertake may not be successful.

In addition, nearly all of our letters of intent are denominated in U.S. dollars, and certain of our definitive agreements could be denominated in currencies other than the U.S. dollar. A strengthening of the U.S. dollar could increase the cost of our solutions to our international customers, which could adversely affect our business and results of operations. In addition, if an increased portion of our operating expenses is incurred outside the United States and is denominated in foreign currencies, we would be subject to increased financial impacts resulting from fluctuations in foreign currency exchange rates. If we become more exposed to currency fluctuations and are not able to successfully hedge against the risks associated with currency fluctuations, our results of operations could be adversely affected.

Our future growth is dependent upon the pace and depth of renewable energy adoption and energy storage technologies, which are emerging industries, as well as our competition. If the markets for renewable energy and energy storage do not develop as we expect, or if they develop more slowly than we expect, our business, prospects, financial condition and operating results could be adversely affected.

Our future growth depends upon factors in our industry, including with respect to our competition, the speed at which the market adopts renewable energy, our ability to penetrate such market and the state of energy storage technologies. Because renewable energy and energy storage are emerging industries, they are evolving and characterized by rapidly changing technologies, changing government regulation and industry standards and changing consumer demands and behaviors. If the markets for these do not develop as we expect, including if they develop more slowly than we expect, demand for our energy storage systems or any digital platform that we may develop, our business, prospects, financial condition and operating results could be adversely affected.

Additionally, the energy storage market is largely driven by installed capacity of renewable electricity generation and increasing demand for renewable sources of power. Since many of these renewable sources of power are intermittent, like wind and solar, the energy produced by them must be stored for use when there is demand. Should government requirements for these intermittent power sources be relaxed or social desires for lower-carbon sources of energy decline, there could be a detrimental impact on one of our primary markets.

Even if renewable energy and energy storage become more widely adopted, our energy storage technology may not achieve widespread market acceptance or may be less cost-effective as compared to competing technologies.

Our business depends on the acceptance of our products in the marketplace. Even if renewable energy and energy storage become more widely adopted than they have been to date, potential customers may choose energy storage products from our competitors that are based on their technologies. If they do so, it may be difficult to later transition such potential customers to products offered by us. Moreover, the marketplace for renewable energy storage products is rapidly evolving, and competing technologies of which we are currently unaware may emerge in the future. If the energy storage technology that supports our products does not achieve market acceptance, then our business and results of operations would be materially adversely affected.

The growth and profitability of our business is dependent upon our technology being more cost-effective than competing energy storage technologies. To the extent our offerings are not eligible for various regulatory incentives, while those of our competitors are, it may adversely impact our competitiveness or otherwise adversely impact our business.

We operate in highly competitive energy industries and there is increasing competition. Many of our competitors and future competitors may have significantly more financial 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 markets in which we compete 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 significantly more financial and other resources, including larger numbers of managerial and technical personnel, to increase their market share. For example, several companies, such as ESS Inc., Eos Energy Enterprises Inc., Hydrostor Inc. and Primus Power, have each announced plans and demonstrated prototypes of products that would compete in the energy storage market, and battery vendors with whom we compete, such as Tesla, Inc., Fluence Energy, Inc., LG Chem, Ltd., Samsung Electronics Co., Ltd and Contemporary Amperex Technology Co. Limited, have already commercialized their respective energy storage solution products. Companies such as Tesla, Inc., Fluence Energy, Inc. and Wartsila Corporation are also developing their own energy management software. If our competitors continue to penetrate the renewable energy, energy storage and energy management software markets, we may experience a reduction in potential and actual market share. To date, we have focused our efforts on recruiting management and other employees, business planning, raising capital, selecting applicable third party technologies, establishing and attempting to establish

partnerships with potential suppliers, customers and ecosystem partners, developing our gravity, battery, and green hydrogen energy storage systems, a digital platform, and general corporate development.

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 future energy storage systems and any digital platform. If a competing process or technology is developed that has superior operational or price performance, our business would be harmed.

Furthermore, our energy storage technology also competes with other emerging or evolving technologies, such as thermal storage, chemical storage, and carbon capture storage and sequestration. If we are unable to keep up with competitive developments, including if such technologies achieve lower prices or enjoy greater policy support than our technology, our competitive position and growth prospects may be harmed, which would adversely affect our business, prospects and financial condition.

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 energy management software customers.

We intend to continue committing significant resources to establish a competitive position. There is no assurance we will successfully identify the right partners or produce and bring our energy storage systems and a digital platform to market on a timely basis, if at all, or that products and technologies developed by others will not render our energy storage systems and any digital platform that we may develop obsolete or noncompetitive, any of which would adversely affect our business, prospects and operating results.

If we are unable to attract and retain key employees and hire qualified management, technical, engineering, and sales personnel, including a highly skilled and diverse management team with experience in the energy storage sectors, our ability to compete and successfully grow our business could be harmed.

We believe that our success and our ability to reach our strategic objectives are highly dependent on the contributions of our key management, technical, engineering and sales personnel. The loss of the services of any of our key employees could disrupt our operations, delay the development and introduction of our products and services, including with respect to our prototype products, and negatively impact our business, prospects and operating results. In particular, we are highly dependent on the services of Robert Piconi, our Chief Executive Officer, Marco Terruzzin, our Chief Product Officer, Andrea Pedretti, our Chief Technology Officer. None of our key employees is bound by an employment agreement for any specific term. We cannot assure you that we will be able to successfully attract and retain senior leadership necessary to grow our business. Furthermore, there is increasing competition for talented individuals in our field, and competition for qualified personnel is especially intense in the renewable energy and energy storage industry in the USA and Switzerland, where, collectively, our primary offices are located. Our failure to attract and retain our executive officers and other key technology, sales, marketing and support personnel, could adversely impact our business, prospects, financial condition, and operating results. In addition, we do not have “key person” life insurance policies covering any of our officers or other key employees.

We believe that it is vital to our operating success that we recruit and retain key personnel, including a highly skilled and diverse management team with experience in the renewable energy and energy storage sectors. If we fail to maintain a highly skilled and diverse management team, we may not be able to achieve our strategic objectives, which would negatively impact our business and operating success. In addition, because our industry is still in a nascent stage, there is and will continue to be a scarcity of skilled personnel with experience in our industry. If we lose a member of our management team or key employee, it may prove difficult for us to replace him or her with a similarly qualified individual with experience in the renewable energy and energy storage industry, which could impact our business and operating success.

Labor disputes could disrupt our ability to serve our customers and/or lead to higher labor costs.

As of December 31, 2022, we employed 170 full-time employees and 7 part-time employees, none of whom are represented by unions and one employee covered by a collective bargaining agreement. If a union sought to organize any of our employees, such organizing efforts or collective bargaining negotiations could potentially lead to work stoppages and/or slowdowns or strikes by certain of our employees. Additionally, the EPC firms that we rely upon to install our energy storage systems may have employees represented by unions or collective bargaining agreements. Any work

stoppages and/or slowdowns by certain of our employees or certain employees at the EPC firms we contract with, could adversely affect our ability to serve our customers.

Further, settlement of actual or threatened labor disputes or an increase in the number of our employees covered by collective bargaining agreements could lead to higher labor costs and could impair productivity and flexibility.

Our management has limited experience in operating a public company.

Our executive officers have limited experience in the management of a publicly traded company. Our management team may not successfully or effectively manage the current transition to a public company that is subject to significant regulatory oversight and reporting obligations under federal securities laws. Their limited experience in dealing with the increasingly complex laws pertaining to public companies could be a significant disadvantage in that it is likely that an increasing amount of their time may be devoted to these activities which results in less time being devoted to the management and growth of our business. 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 the Company will be required to expand its employee base and hire additional employees to support our operations as a public company which will increase our operating costs in future periods.

Changes in business, economic, or political conditions, including overall changes in demand, are beyond our control and could impact our business, resulting in lower revenues and other adverse effects to our results of operations.

Economic uncertainty and associated macroeconomic conditions, including heightened inflation, capital markets volatility, interest rate and currency rate fluctuations, and economic slowdown or recession, have resulted and may continue to result in unfavorable conditions that negatively affect demand for our products and exacerbate some of the other risks that affect our business, financial condition, and results of operations. Both domestic and international markets experienced inflationary pressures in 2022 and inflation rates in the U.S., as well as in other countries in which we operate, are currently expected to continue at elevated levels for the near-term. In addition, the Federal Reserve in the U.S. and other central banks in various countries have raised, and may again raise, interest rates in response to concerns about inflation, which, coupled with reduced government spending and volatility in financial markets, has had and may continue to have the effect of further increasing economic uncertainty and heightening these risks. Interest rate increases or other government actions taken to reduce inflation have resulted in recessionary pressures in many parts of the world. Furthermore, currency exchange rates have been especially volatile in the recent past, and these currency fluctuations have affected, and may continue to affect, the reported value of our assets and liabilities, as well as our cash flows.

A significant downturn in the domestic or global economy may cause our customers to pause, delay, or cancel spending on our offerings or seek to lower their costs by exploring alternatives. To the extent purchases of our offerings are perceived by customers and potential customers as discretionary, our revenue may be disproportionately affected by delays or reductions in energy storage spending. Also, competitors may respond to challenging market conditions by lowering prices and attempting to lure away our customers.

Similarly, our business depends on the overall business and global or regional political conditions, which are beyond our control.

We cannot predict the timing, strength, or duration of any economic slowdown or any subsequent recovery generally, or any industry in particular or how global business and political conditions may change. To the extent that general business, economic or political conditions, including overall changes in demand for our products, decline, our business, financial condition and results of operations, including revenues, could be materially adversely affected.

The productivity of our or our customers' facilities, the operation of our supply chain, the demand, performance and availability of our products, our services, our systems and our business in general may be affected by factors outside of our control, which could result in harm to our business and financial results.

The productivity of our or our customers' facilities, the operation of our supply chain, the demand, performance and availability of our products, our services, our systems and our business in general could be adversely affected by events outside of our control, such as natural catastrophic events, geographical instability, wars, and other calamities. We cannot assure you that, collectively, our process and procedures to recover from a disaster or catastrophe will be adequate to protect us from the effects of fire, floods, typhoons, earthquakes, power loss, telecommunications failures, break-ins, war, riots, terrorist attacks, pandemics, or similar events outside of our control, certain of which may become more frequent or intense as a result of climate change. For more information, see our risk factor titled "We are subject to a series of risks related to climate change.". The severity of such factors and frequency at which they occur are also outside our control. If

such factors occur our business, financial condition and results of operations, including revenues, could be materially adversely affected.

We are subject to a series of risks related to climate change.

There are inherent climate-related risks wherever business is conducted. Certain of our facilities, as well as third-party infrastructure we rely on, are located in areas that have experienced, and are projected to continue to experience, various meteorological phenomena (such as drought, heatwaves, wildfire, storms, and flooding, among others) or other catastrophic events that may disrupt our or our suppliers' operations (as well as grid connections), require us to incur additional operating or capital expenditures, or otherwise adversely impact our business, financial condition, or results of operations. Climate change may increase the frequency and/or intensity of such events. For example, in certain areas, there has been an increase in power shutoffs associated with wildfire prevention. While we may take various actions to mitigate our business risks associated with climate change, this may require us to incur substantial costs and may not be successful, due to, among other things, the uncertainty associated with the longer-term projections associated with managing climate risk. For example, to the extent such events become more frequent or intense, we may not be able to procure insurance to cover all potential losses on terms we deem acceptable.

Additionally, we expect to be subject to increased regulations, reporting requirements, standards or expectations regarding the environmental impacts of our business. For example, the SEC has published propose rules that would require companies to provide significantly expanded climate-related disclosures in their periodic reporting, which may require us to incur significant additional costs to comply and impose increased oversight obligations on our management and board of directors ("Board"). The expectations of various stakeholders, including customers and employees, regarding such matters likewise continues to evolve. For more information, see our risk factor titled "Increasing attention to, and scrutiny of, environmental, social, and governance matters could increase our costs, harm our reputation, impact our share price or access to or cost of capital, or otherwise adversely impact our business." Changing market dynamics, global and domestic policy developments, and the increasing frequency and impact of meteorological phenomena have the potential to disrupt our business, the business of our suppliers and/or customers, or otherwise adversely impact our business, financial condition, or results of operations.

Fuel prices, including volatility in the cost of diesel or natural gas or a prolonged period of low gasoline and natural gas costs, could decrease incentives to transition to renewable energy.

A portion of the current and expected demand for renewable energy results from concerns about volatility in the cost of gasoline and other petroleum-based fuel, the dependency of the United States on oil from unstable or non-aligned countries, government regulations and economic incentives promoting fuel efficiency and alternative forms of energy, as well as concerns about climate change resulting in part from the burning of fossil fuels. If the cost of gasoline and other petroleum-based fuel decreases significantly, the outlook for the long-term supply of oil to the United States improves, the government eliminates or modifies its regulations or economic incentives related to fuel efficiency and alternative forms of energy or there is a change in the perception in the cost-benefit analysis regarding the effects of burning fossil fuels on the environment, the demand for renewable energy, including energy storage products such as ours, could be reduced, and our business and revenue may be harmed.

Diesel, gasoline, natural gas, and other petroleum-based fuel prices have historically been extremely volatile, and it is difficult to ascertain whether such volatility will continue to persist. Lower gasoline and natural gas costs over extended periods of time may lower the perception in government and the private sector that cheaper, more readily available energy alternatives, such as wind and solar, should be developed and produced. If gasoline or other petroleum-based fuel prices remain at deflated levels for extended periods of time, the demand for renewable energy may decrease notwithstanding incentives to transition to renewable energy, which would have an adverse effect on our business, prospects, financial condition and results of operations.

Our insurance coverage, customer indemnifications or other liability protections may be unavailable or inadequate to cover all of our significant risks, which could adversely affect our profitability and overall financial position.

We endeavor to obtain insurance to cover significant risks and liabilities (including, for example, natural disasters, cyber security, defective hardware and software and products liability). Not every risk or liability can be insured, and insurance coverage is not always reasonably available. The policy limits and terms of coverage reasonably obtainable may not be sufficient to cover actual losses or liabilities. Even if insurance coverage is available, we are not always able to obtain it at a price or on terms acceptable to us or without increasing exclusions. Disputes with insurance carriers over the availability of coverage, and the insolvency of one or more of our insurers may affect the availability or timing of recovery, as well as our ability to obtain insurance coverage at reasonable rates in the future. In some circumstances we may be entitled to certain legal protections or indemnifications from our suppliers through contractual provisions, laws or otherwise. However, these protections are not always available, are difficult to negotiate and obtain, are typically subject to certain

terms or limitations, including the availability of funds, and may not be sufficient to cover our losses or liabilities. If insurance coverage, customer indemnifications and/or other legal protections are not available or are not sufficient to cover risks or losses, it could have a material adverse effect on our financial position, results of operations and/or cash flows.

Risks Related to Our Financial Condition and Liquidity

During an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022, management identified a material weakness in our internal control over financial reporting. If we continue to fail to maintain proper and effective internal controls over financial reporting or are unable to remediate the material weakness in our internal controls over financial reporting, our ability to produce accurate and timely financial statements could be impaired, and investors' views of us could be harmed.

Management has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. As a result of this assessment, management determined a material weakness in our internal control over financial reporting existed relating to the recognition of revenue from certain licensing contracts. Specifically, in connection with one of our licensing contracts, we did not implement effective background check controls for an international customers' ability to pay in order to properly assess the probability that we will collect substantially all of the consideration to which we are entitled. Upon our discovery of this material weakness, additional substantive controls and procedures were performed to validate completeness and accuracy of underlying data and we determined and began implementation of a remediation plan.

These additional substantive controls and procedures have allowed us to conclude that, notwithstanding the material weakness in our internal control over financial reporting, the consolidated financial statements included in this Annual Report fairly present, in all material respects, our financial position, results of operations, and cash flows for the periods presented in conformity with generally accepted accounting principles.

There can be no assurance that our remediation plan will be successful. If we are unable to remediate the material weakness timely and sufficiently or are otherwise unable to maintain effective internal control over financial reporting, our ability to report financial information timely and accurately could be adversely affected, we may fail to meet our reporting requirements and investors may lose confidence in the accuracy and completeness of our financial reports. As a result, our business may be harmed, and the market price of our common stock could decline. In addition, we could become subject to investigations by the NYSE or any other stock exchange on which our securities are then listed, the SEC or other regulatory authorities as a result, which could require additional financial and management resources. In addition, even if we are successful in strengthening our controls and procedures, those controls and procedures may not be adequate to prevent or identify irregularities or ensure the fair and accurate presentation of our financial statements included in our periodic reports filed with the SEC.

We are an early stage company with a history of losses, and expect to incur significant expenses and continuing losses for the foreseeable future, and we may not be able to achieve profitability in the future.

Since our inception in October 2017, we have incurred significant net losses and have used significant cash in our business. As of December 31, 2022 and 2021, we had accumulated deficits of $147.3 million and $69.0 million, respectively, and net losses of $78.3 million and $31.3 million, respectively, for the years ended December 31, 2022 and 2021. We expect to continue to expand our operations, including by investing in manufacturing, sales and marketing, research and development and infrastructure to support our growth. We anticipate that we will incur net losses for the foreseeable future and there is no guarantee that we will achieve or maintain profitability. Our ability to achieve and maintain profitability in the future will depend on a number of factors, including:

- successfully implementing our products on a commercial scale;
- achieving meaningful sales volume;
- the successful and timely development of our EMS;
- attracting customers;
- expanding into geographical markets;
- our future customers' ability to attract and retain financing partners who are willing to provide financing for sales on a timely basis and with attractive terms;
- continuing to improve the expected useful life of our GESS technology and reducing our warranty servicing costs;
- the cost of producing our energy storage systems;

- successful continued development and deployment of our energy storage systems, including our GESS, BESS, and gHESS;
- ability to execute on our strategy to reduce costs, in the amount and on the timing projected;
- ability to add waste material, such as coal ash and wind turbine blades, in the production of mobile masses;
- improving the efficiency and predictability of our construction processes;
- entering into agreements with suppliers and service providers for the maintenance of our systems and other strategic relationships;
- improving the effectiveness of our sales and marketing activities and any independent sales representatives that we may engage;
- attracting and retaining key talent in a competitive marketplace;
- the amount and timing of stock-based compensation expenses;
- identifying new opportunities for other business to integrate our product into their operations;
- fluctuations in the costs of steel and raw materials;
- legal and commercial acceptance of the incorporation of waste material (including, but not limited to, coal ash) into our mobile masses; and
- delays associated with obtaining construction permits and potential regulatory review.

The implementation of our business plan and strategy may require additional capital. If we are then unable to achieve sufficient sales to generate that capital or otherwise raise capital, it may create substantial doubt about our ability to pursue our business objectives and achieve profitability or to continue as a going concern. If adequate capital is not available to us, including due to the cost and availability of funding in the capital markets, our business, operating results and financial condition may be harmed.

The development, design, manufacture and sale of our energy storage systems is a capital-intensive business. As a result, we can be expected to continue to incur substantial operating expenses without generating sufficient revenues to cover expenditures. Over time, we may need to raise additional funds, including through entry into new joint venture arrangements, through the issuance of equity, equity-linked or debt securities or through obtaining credit from financial institutions to fund, together with our principal sources of liquidity, ongoing costs such as research and development relating to our products and technologies, the construction and tooling of prototypes, the implementation of our systems for our future customers, any significant unplanned or accelerated expenses, and new strategic investments. We cannot be certain that additional capital will be available on attractive terms, if at all, when needed, which could be dilutive to stockholders, and our financial condition, results of operations, business and prospects could be materially and adversely affected. Disruptions in the global capital markets and credit markets as a result of an economic downturn, economic uncertainty, changing interest rate yield curves, changing or increased regulations, or failures of significant financial institutions could adversely affect our cash resources or access to additional capital needed for business in the future.

The Company maintains the majority of its cash and cash equivalents in accounts with major U.S. and multi-national financial institutions, and our deposits at certain of these institutions exceed insured limits. Market conditions can impact the viability of these institutions. In the event of failure of any of the financial institutions where we maintain our cash and cash equivalents, there can be no assurance that we would be able to access uninsured funds in a timely manner or at all. Any inability to access or delay in accessing these funds could adversely affect our business and financial position.

If adequate capital is not available to us, it may create substantial doubt among third parties, including suppliers and potential customers, about our ability to pursue our objectives, to achieve profitability or to continue as a going concern. Such doubt could materially and adversely impact our business, reputation and prospects.

Our energy storage systems involve a lengthy sales and installation cycle, and if we fail to close sales on a regular and timely basis it could harm our business. Moreover, the long sales cycles for our energy storage systems may cause us to incur significant expenses without offsetting revenues

Although we have not yet completed any full cycle from sale to installation of our energy storage systems, we expect them to be lengthy. In order to make a sale, we must typically provide a significant level of education to prospective customers regarding the use and benefits of our products and our technology. The period between initial discussions with a potential customer and the sale of even a single product typically depends on a number of factors, including the potential customer's attitude towards innovative products, their budget and decision as to the type of financing it chooses to use, as well as the arrangement of such financing. Prospective customers often undertake a significant evaluation process, which may further

extend the sales cycle. Once a customer makes a formal decision to purchase our product, the fulfillment of the sales order by us requires a substantial amount of time. Currently, we believe the time between the entry into a sales contract with a customer and the installation of our EVx systems could range from 18 to 36 months and BESSs could range from 9 to 18 months. This lengthy sales and installation cycle is subject to a number of significant risks over which we have little or no control.

These lengthy sales and installation cycles increase the risk that our customers fail to satisfy their payment obligations or cancel orders before the completion of the transaction or delay the planned date for installation. Generally, a customer can cancel an order prior to installation, and, notwithstanding the fact that a customer's termination for convenience will obligate the customer to pay us certain fees, we may be unable to recover some of our costs in connection with design, permitting, installation and site preparations incurred prior to cancellation. Cancellation rates in our industry could increase in any given period, due to factors outside of our control including an inability to install an energy storage system at the customer's chosen location because of permitting or other regulatory issues, unanticipated changes in the cost or availability of alternative sources of electricity available to the customer, or other reasons unique to each customer. Our operating expenses are based on anticipated sales levels, and certain of our expenses are fixed. If we are unsuccessful in closing sales after expending significant resources or if we experience delays or cancellations, our business could be materially and adversely affected.

Moreover, our customers typically expend significant effort in evaluating, testing and qualifying our products before making a decision to purchase them, resulting in a lengthy initial sales cycle. While our customers are evaluating our products, we have incurred, and expect to continue to incur, substantial sales, marketing, and research and development expenses to customize our products to the customer's needs. During an initial sales cycle, we may also expend significant management efforts and order long-lead-time components or materials. Even after this evaluation process, a potential customer may not purchase our products. As a result, these long sales cycles may cause us to incur significant expenses without ever receiving revenue to offset those expenses.

Because of the long sales cycles and the expected limited number of customers for our energy storage systems, our operating results will likely fluctuate significantly from period to period.

We expect that long sales cycles and the expected limited number of customers for our energy storage systems is likely to cause fluctuations in our operating results from period to period. As a result of how we recognize revenue, small fluctuations in the timing of the completion of our sales transactions could also cause operating results to vary materially from period to period. In addition, our financial condition and results of operations may fluctuate in the future due to a variety of factors, many of which are beyond our control.

In addition to the other risks described herein, the following factors could also cause our financial condition and results of operations to fluctuate on a quarterly basis:

- fluctuations in costs associated with the first group of energy storage systems that we deploy;
- the timing of customer installations of our energy storage systems, which may depend on many factors such as availability of inventory, product quality or performance issues, or local permitting requirements, utility requirements, environmental, health and safety requirements, weather and customer facility construction schedules, availability and schedule of our third-party general contractors;
- size of particular customer installations and number of sites involved in any particular quarter;
- delays or cancellations of purchases and installations;
- the timing of when control of uninstalled materials transfers to the customer;
- fluctuations in our service costs;
- weaker than anticipated demand for our energy storage systems due to changes in government regulation, incentives and policies;
- weaker than anticipated demand for our energy storage systems due to our customers' inability to finance their projects;
- interruptions in our supply chain;
- the timing and level of additional purchases by existing customers;
- unanticipated expenses incurred due to changes in governmental regulations, permitting requirements by local authorities at particular sites, utility requirements and environmental, health and safety requirements;

- disruptions in our sales, production, service or other business activities resulting from our inability to attract and retain qualified personnel;
- shortage of raw materials from our suppliers and associated price increases due to fluctuations in commodities prices; and
- availability of spare parts from our suppliers.

In addition, our revenue, key operating metrics and other operating results in future quarters may fall short of the expectations of investors and financial analysts, which could have an adverse effect on the price of our common stock.

Our total backlog and bookings may not be indicative of our future revenue, which could have a material adverse impact on our business, financial condition, and results of operations.

Our backlog represents the amount of revenue we expect to realize in the future on uncompleted construction contracts, including new contracts under which work has not yet begun, as well as the remaining revenue to be recognized under the Company's intellectual property licensing agreements. As of December 31, 2022, backlog totaled $331.0 million. Our bookings represents the total MWhs to be delivered and the aggregate contracted value for energy storage systems, tolling arrangements, and license and service agreements signed. The aggregate contracted value excludes any potential future variable payments or royalties. For the year ended December 31, 2022, bookings totaled $540.1 million. There can be no assurance that our backlog and bookings will result in actual revenue in the future in any particular period. This is because the actual receipt, timing, and amount of revenue under contracts included under backlog and bookings are subject to various contingencies, many of which are beyond our control. Our failure to realizing revenue from contracts included in the total amounts estimated under backlog and bookings could have a material adverse impact on our business, financial condition and results of operations.

Our ability to use net operating losses and other tax attributes to offset future taxable income may be subject to certain limitations.

As of December 31, 2022, we had approximately $3.4 million, $21.9 million, and $37.3 million of federal, state and foreign net operating loss ("NOL") carryforwards, respectively, that will generally carry forward to offset future taxable income (if any), until such NOLs expire (if at all). The federal and state net operating loss carryforwards will begin to expire, if unutilized, beginning in 2038. The foreign NOL carryforwards will begin to expire, if unutilized, beginning in 2025. Additionally, as of December 31, 2022, the Company had federal and state research tax credit carryforwards of and $0.3 million and $0.3 million, respectively. The federal research tax credit carryforwards will begin to expire, if unutilized, in 2041. The state tax research credits do not expire.

Federal NOLs generated in taxable years ending after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs may be limited to 80% of our taxable income annually for tax years beginning after December 31, 2020. Our NOL carryforwards are subject to review and possible adjustment by the applicable tax authorities. In addition, in general, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the "Code"), if a corporation undergoes an "ownership change," generally defined as a cumulative change of more than 50 percentage points (by value) in its equity ownership by certain stockholders over a three-year period, the corporation's ability to use its pre-change NOL carryforwards and other pre-change tax attributes (such as research and development tax credits) to offset its post-change income or taxes may be limited. We may experience ownership changes in the future as a result of subsequent changes in our stock ownership, some of which are outside our control. Similar provisions of state and foreign tax law may apply and future regulatory changes could also limit our ability to utilize NOL carryforwards to offset future taxable income.

Changes in tax laws and regulations may have a material adverse effect on our business, financial condition, and result of operations.

New income, sales, use, or other tax laws, statutes, rules, regulations, or ordinances could be enacted at any time, which could affect the tax treatment of any of our future U.S. and non-U.S. earnings. Further, existing tax laws, statutes, rules, regulations, or ordinances could be interpreted, changed, modified, or applied adversely to us. Generally, future changes in applicable U.S. and non-U.S. tax laws and regulations, or their interpretation and application, potentially with retroactive effect, could have an adverse effect on our business, financial conditions, and results of operations. We are unable to predict whether such changes will occur and, if so, the ultimate impact on our business.

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 noncash 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.

Incorrect estimates or assumptions by management in connection with the preparation of our consolidated financial statements could adversely affect our reported assets, liabilities, income, revenue or expenses.

The preparation of our consolidated financial statements requires management to make critical accounting estimates and assumptions that affect the reported amounts of assets, liabilities, income, revenues or expenses during the reporting periods. Incorrect estimates and assumptions by management could adversely affect our reported amounts of assets, liabilities, income, revenues and expenses during the reporting periods. If we make incorrect assumptions or estimates, our reported financial results may be over- or understated, which could materially and adversely affect our business, financial condition and results of operations.

Risks Related to Our Intellectual Property and Technology

We may be unable to protect, defend, maintain or enforce intellectual property rights on which our business depends, including as against existing or future competitors, which may adversely affect our growth and success.

We rely primarily on patent, copyright, trade secret and trademark laws, and non-disclosure, confidentiality, and other types of contractual restrictions to establish, maintain, and enforce our intellectual property and proprietary rights. However, our rights under these laws and agreements afford us only limited protection and the actions we take to establish, maintain, and enforce our intellectual property rights may not be adequate. For example, certain of our engineers reside in California and it is not legally permissible to prevent them from working for a competitor. In addition, our trade secrets and other confidential information could be disclosed in an unauthorized manner to third parties, our owned or licensed intellectual property rights could be challenged, invalidated, circumvented, infringed, or misappropriated or our intellectual property rights may not be sufficient to provide us with a competitive advantage, any of which could have a material adverse effect on our business, financial condition or operating results.

The laws of some countries do not protect intellectual property rights as fully as do the laws of the United States. Therefore, our intellectual property rights may not be as strong or as easily enforced outside of the United States and efforts to protect against the unauthorized use of our intellectual property rights, technology and other proprietary rights may be more expensive and difficult outside of the United States. Further, we have not established our intellectual property rights in all countries in the world, and competitors may copy our designs and technology and operate in countries in which we have not prosecuted out intellectual property. Failure to adequately protect our intellectual property rights could result in our competitors using our intellectual property to offer products, and competitors' ability to design around our intellectual property would enable competitors to offer similar or better batteries, in each case potentially resulting in the loss of some of our competitive advantage and a decrease in our revenue, which would adversely affect our business, prospects, financial condition and operating results.

Our patents and patent applications, if issued, may not provide adequate protection to create a barrier to entry. The provisional and non-provisional patent applications that we own may not issue as patents or provide adequate protection to create a barrier to entry, which may hinder our ability to prevent competitors from selling products similar to ours.

We cannot be certain that our pending patent applications will result in issued patents or that any of our issued patents will afford protection against a competitor. 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 in the future will afford protection against competitors with similar technology. In addition, 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 related to issued U.S. patents will be issued in other regions. Furthermore, even if these patent applications are accepted and the associated patents are issued, some foreign countries provide significantly less effective patent enforcement than in the United States.

We intend to continue to regularly assess opportunities for seeking patent and other intellectual property protections for certain aspects of our technology, designs and methodologies that we believe provide a meaningful competitive advantage. However, our ability to do so may be limited until such time as we are able to generate cash flow from operations or otherwise raise sufficient capital to continue to invest in our intellectual property. For example, maintaining patents in the United States and other countries requires the payment of maintenance fees, which may result in loss of our patent rights if we are unable to pay. If we are unable to so invest in our intellectual property, our ability to protect it or prevent others from infringing on our proprietary rights may be impaired.

In addition, patents issued to us may be infringed upon 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, our prospects, and our operating results.

We may be subject to third-party claims of infringement, misappropriation or other violation of intellectual property rights, or other claims challenging our agreements related to intellectual property, which may be time-consuming and costly to defend, and could result in substantial liability.

Companies, organizations, or individuals, including our competitors, may hold or obtain patents, trademarks, or other intellectual property rights that may prevent, limit, or interfere with our ability to make, use, develop, or sell our products or services, which could make it more difficult for us to operate our business. These companies holding intellectual property rights allegedly relating to our products or services could, in the future, make claims or bring suits alleging infringement, misappropriation, or other violations of such rights, or otherwise assert their rights by seeking royalties or injunctions. If a claim is successfully brought in the future and we or our products or services are determined to have infringed, misappropriated, or otherwise violated a third party's intellectual property rights, we may be required to do one or more of the following:

- cease selling or using our products or services that incorporate the challenged intellectual property;
- pay substantial damages (including treble damages and attorneys' fees if our infringement is determined to be willful);
- obtain a license from the holder of the relevant intellectual property rights, which may not be available on reasonable terms or at all; or
- redesign our products, services, or means of production, which may not be possible or cost-effective.

Any of the foregoing could adversely affect our business, prospects, operating results, and financial condition. In addition, any litigation or claims, whether or not valid, could harm our reputation, result in substantial costs and divert resources and management attention.

We also license technology from third parties and incorporate components supplied by third parties into our products. We may in the future face claims that our use of such technology or components infringes or otherwise violates the rights of others, which would subject us to the risks described above. We may in some cases seek indemnification from our licensors or suppliers under our contracts with them, but our rights to indemnification or our suppliers' resources may be unavailable or insufficient to cover our costs and losses.

We may be subject to claims that our employees, consultants, or advisors have wrongfully used or disclosed proprietary information or know-how of their current or former employers or claims asserting ownership of what we regard as our own intellectual property rights.

Many of our employees, consultants, and advisors are currently or were previously employed or engaged at other companies in our field, including our competitors or potential competitors. Although we try to ensure that our employees, consultants, and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property rights, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property rights to execute agreements assigning such intellectual property rights to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property rights that we regard as our own. Additionally, the assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property rights. Any of the foregoing could harm our competitive position, business, financial condition, results of operations, and prospects.

We utilize open-source software, which may pose particular risks to our proprietary software and solutions.

We use open-source software in our solutions and will use open-source software in the future. Companies that incorporate open-source software into their solutions have, from time to time, faced claims challenging the use of open-source software and compliance with open-source license terms. Some licenses governing the use of open-source software contain requirements that we make available source code for modifications or derivative works we create based upon the open-source software, and that we license such modifications or derivative works under the terms of a particular open-source

license or other license granting third parties certain rights of further use. By the terms of certain open-source licenses, we could be required to release the source code of our proprietary software, and to make our proprietary software available under open-source licenses to third parties at no cost, if we combine or distribute our proprietary software with open-source software in certain manners. Although we monitor our use of open-source software, we cannot assure you that all open-source software is reviewed prior to use in our solutions, that our developers have not incorporated open-source software into our solutions, or that they will not do so in the future. Additionally, the terms of many open-source licenses to which we are subject have not been interpreted by U.S. or foreign courts. There is a risk that open-source software licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market or provide our solutions as currently marketed or provided. Companies that incorporate open-source software into their products have, in the past, faced claims seeking enforcement of open-source license provisions and claims asserting ownership of open-source software incorporated into their product. If an author or other third party that distributes such open-source software were to allege that we had not complied with the conditions of an open-source license, we could incur significant legal costs defending ourselves against such allegations. In the event such claims were successful, we could be subject to significant damages or be enjoined from the distribution of our software. In addition, the terms of open-source software licenses may require us to provide source code that we develop using such open-source software to others on unfavorable license terms. As a result of our current or future use of open-source software, we may face claims or litigation, be required to release our proprietary source code, pay damages for breach of contract, re-engineer our solutions, discontinue making our solutions available in the event re-engineering cannot be accomplished on a timely basis, or take other remedial action. Any such re-engineering or other remedial efforts could require significant additional research and development resources, and we may not be able to successfully complete any such re-engineering or other remedial efforts. Further, in addition to risks related to license requirements, use of certain open-source software can lead to greater risks than use of third-party commercial software, as open-source licensors generally do not provide warranties or controls on the origin of software. Any of these risks could be difficult to eliminate or manage, and, if not addressed, could have a negative effect on our business, financial condition, and results of operations.

Cyber-attacks and other security breaches could have an adverse effect on our business, harm our reputation and expose us to liability.

Computer malware, viruses, physical or electronic break-ins and similar disruptions could lead to interruption and delays in our services and operations and loss, misuse or theft of data or other intellectual property. Computer malware, viruses, ransomware, hacking and phishing attacks against online networks have become more prevalent and may occur on our systems in the future. Due to the political uncertainty involving Russia and Ukraine, there is an increased likelihood that escalation of tensions could result in cyber-attacks or cybersecurity incidents that could either directly or indirectly impact our operations. Any attempts by cyber attackers to disrupt our services or systems, if successful, could harm our business, introduce liability to data subjects, result in the misappropriation of funds or other intellectual property, be expensive to remedy and damage our reputation or brand. Insurance may not be sufficient to cover significant expenses and losses related to cyber-attacks. Efforts to prevent cyber attackers from entering computer systems are expensive to implement, and we may not be able to cause the implementation or enforcement of such preventions with respect to our third-party vendors. Though it is difficult to determine what, if any, harm may directly result from any specific interruption or attack, any failure to maintain performance, reliability, security and availability of systems and technical infrastructure may, in addition to other losses, harm our reputation, brand and ability to attract customers.

We may in the future experience, service disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, third-party service providers, human or software errors and capacity constraints.

We continue to implement processes and procedures designed to enable us to quickly recover from a disaster or catastrophe and continue business operations. We have tested this capability under controlled circumstances, however, there are several factors ranging from human error to data corruption that could materially impact the efficacy of such processes and procedures, including by lengthening the time services are partially or fully unavailable to customers and users. It may be difficult or impossible to perform some or all recovery steps and continue normal business operations due to the nature of a particular disaster or catastrophe, especially during peak periods, which could cause additional reputational damages, or loss of revenues, any of which could adversely affect our business and financial results.

In the future our energy storage systems and any digital platform that we develop may experience outages and other performance problems due to a variety of factors, including infrastructure changes, third-party service providers, human or software errors and capacity constraints. We may also face changes in our energy storage systems, which could lead to damages, accidents and or system disruptions. We may in the future experience blackmail for our proprietary software or any software underpinning any digital platform that we may develop, which could shut down operation of our systems, those of our potential customers, or cause other damage to such systems.

Any significant disruption in our computer systems, some of which will be hosted by third-party providers, could damage our reputation and result in negative publicity, which would harm our business and results of operations.

Although the computer systems for our energy storage systems will strictly be on-premise, we utilize third-party web services for administrative purposes and as a backup for our customers in case there is an on-site system failure. Interruptions, whether due to system failures, human errors, computer viruses, physical or electronic break-ins, denial-of-service attacks, and capacity limitations, could delay or inhibit our operations. Problems, whether real or perceived, with the reliability or security of our systems could prevent us from earning revenue and could harm our reputation. Damage to our reputation, any resulting loss of user confidence and the cost of remedying these problems could negatively affect our business, results of operations, financial condition, and prospects.

We have service agreements with data center providers. Problems with our third-party service providers or with their network providers or with the systems allocating capacity among their users, including us, could adversely affect our ability to serve our customers or perform our administrative work. Our third-party service providers could decide to close their facilities without adequate notice. Any financial difficulties, such as bankruptcy or reorganization, faced by our third-party service providers or any of the service providers with whom they contract may have negative effects on our business, the nature and extent of which are difficult to predict. If our third-party service providers are unable to keep up with our needs for capacity, this could have an adverse effect on our business. In the event that our agreements with any of our third-party service providers is terminated, or we add additional cloud infrastructure service providers, we may experience significant costs or downtime in connection with the transfer to, or the addition of, new cloud infrastructure service providers. Any of the above circumstances or events may harm our reputation and brand or increase our costs, any of which could adversely affect our business, financial condition, and results of operations.

Our systems include complex software and technology systems and do not have a meaningful history of operation, and there can be no assurance such systems and technology will perform as expected or that software, engineering or other technical defects will not be discovered until after a system is installed and operated by a customer. If our energy storage systems contain manufacturing or construction defects, our business and financial results could be harmed. In addition, the development and updating of these systems will require us to incur potentially significant costs and expenses.

To date, we have built the CDU, but have not yet deployed any fully operational energy storage systems. Once commercial production commences or our systems are installed and put into use by customers, our products may contain defects in design, manufacture or construction that may cause them not to perform as expected or may require repair. An EVx system is unique proprietary technology to Energy Vault, and because one has not yet been fully constructed or deployed, we currently have no frame of reference by which to evaluate the performance of our EVx systems. Additionally, our energy storage systems will use a substantial amount of software to operate which may require modification and updates over the life of such systems. Software products are inherently complex and often contain defects and errors when first introduced. These defects and errors can manifest in any number of ways in our products, including through diminished performance, security vulnerabilities, malfunctions, or even permanently disabled products. Additionally, it is difficult for us to evaluate the manufacturing and construction of our energy storage systems until there are working examples that have been manufactured, constructed, and used by us and/or our customers.

There can be no assurance that we will be able to detect and fix any defects in the hardware or software of our energy storage systems, and such defects may not become apparent until a system is installed and operated by a customer. Our energy storage systems may not perform consistent with customers' expectations or consistent with other energy storage systems which may become available. Any product defects or any other failure of our energy storage systems to perform as expected could harm our reputation and result in negative publicity, lost revenue, delivery delays, product liability claims and significant warranty and other expenses, and could have a material adverse impact on our business, financial condition, operating results and prospects. Any defects, errors, or other vulnerabilities discovered in our software after release could allow third parties to manipulate or exploit our software, lower revenue, and expose us to claims for damages, any of which could seriously harm our business. We also could face claims for product liability, tort, or breach of warranty. Defending a lawsuit, regardless of its merit, is costly and may divert management's attention and seriously harm our reputation and our business.

In addition, further development and updating of our energy storage systems will require us to incur potentially significant costs and expenses.

Any failure to offer high-quality technical support services may adversely affect our relationships with our customers and adversely affect our financial results.

As we complete our initial energy storage projects, we anticipate that our customers will depend on our support organization to resolve any technical issues relating to the hardware and software included in our systems. In addition, our sales process is likely to depend highly on the quality of our hardware and software-enabled services, on our business

reputation, and on strong recommendations from our existing customers. Any failure to maintain high-quality and highly-responsive technical support, or a market perception that we do not maintain high-quality and highly-responsive support, could adversely affect our reputation, our ability to sell our products to existing and prospective customers, and our business, financial condition and results of operations.

We intend to offer technical support services alongside our systems. While we have a designated team of engineers to support our customers, they may be unable to respond quickly enough to accommodate short-term increases in demand for support services, particularly as we increase the size of our customer base. We also may be unable to modify the format of our support services to compete with changes in support services provided by competitors. At our current stage, it is difficult to predict demand for technical support services and if demand were to increase significantly beyond our expectations, we may be unable to provide satisfactory support services to our customers. Additionally, increased demand for these services, without corresponding revenue, could increase costs and adversely affect our business, financial condition and results of operations.

If any of our products are or are alleged to be defective in design or manufacturing or experience other failures, we may be compelled to undertake corrective actions, which could adversely affect our business, prospects, operating results, reputation and financial condition.

Our energy storage systems are complex and incorporate technology and components that may contain design and manufacturing-related defects and errors and may in the future contain undetected defects or errors. Additionally, we have limited experience from which to evaluate the long-term performance of our energy storage systems since we have not yet deployed any fully operational systems, except for the CDU. There can be no assurance that we will be able to detect and fix any defects in any of our energy storage system systems prior to the sale to potential consumers.

Generally, we do not manufacture the components of our energy storage systems and we rely on suppliers and subcontractors to manufacture such components. We provide installation, construction, and commissioning services for our customers that purchase our products. Although we have implemented quality control initiatives to help prevent defects and issues, defects and issues may still occur in the future that may result in significant expenses or disruptions of our operations.

Since we do not manufacture certain components of our energy storage systems, our ability to seek recourse for liabilities and recover costs from our suppliers and subcontractors depends on our contractual rights as well as the financial condition and integrity of such suppliers and subcontractors. Furthermore, our suppliers and subcontractors may be unable or not required to correct manufacturing defects or other failures of such components of our energy storage systems in a manner satisfactory to our customers, which could adversely affect customer satisfaction, market acceptance, and our business reputation.

For example in a GESS system, mobile masses may fall or the system may otherwise fail to perform as expected. For BESSs, on rare occasions, lithium-ion batteries can rapidly release the energy they contain by venting smoke and flames in a manner that can ignite nearby materials as well as other lithium-ion batteries. Any defective performance could subject us to lawsuits, product recalls, or redesign efforts, all of which would be time consuming and expensive. Additionally, negative public perception regarding the suitability of the components in our energy applications could adversely affect our business and reputation.

Any defects or errors in product or services offerings, or the perception of such defects or errors, or other performance problems could result in any of the following, each of which could adversely affect our business, financial condition, and results of operations:

- expenditure of significant financial and product development resources, including recalls, in efforts to analyze, correct, eliminate, or work around errors or defects;
- significant re-engineering work;
- loss of existing or potential customers or partners;
- interruptions or delays in sales;
- delayed or lost revenue;
- delay or failure to attain market acceptance;
- delay in the development or release of new functionality or improvements;
- negative publicity and reputational harm;
- sales credits or refunds;

- security vulnerabilities, data breaches, and exposure of confidential or proprietary information;
- diversion of development and customer service resources;
- breach of warranty claims;
- legal claims and regulatory actions under applicable laws, rules, and regulations; and
- the expense and risk of litigation.

Risks Related to Government Regulation

Our future financial performance may depend on the continued availability of rebates, tax credits and other financial incentives. The reduction, modification, or elimination of government economic incentives could cause our revenue to decline and harm our financial results.

U.S. federal, state, local and foreign governments provide incentives to end users 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. The range and duration of these incentives varies widely by jurisdiction. Our business may rely on these governmental rebates, tax credits, and other financial incentives to significantly lower the effective price of our energy storage systems for our customers. 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. These reductions or terminations may occur without warning. The reduction, elimination, or expiration of such incentives therefore could harm our business and cash flows.

In August 2022, the United States passed the IRA, which includes a number of government incentives that support the adoption of energy storage products and services and are anticipated to benefit the Company and its operations. Forthcoming guidance to implement the IRA from the U.S. Department of Treasury and other federal administrative agencies could be drafted in such manner that would not be as anticipated and may be adverse to the Company's interests.

We could be liable for environmental damage resulting from our operations, which could impact our reputation, our business, and our operating results.

We are subject to environmental, health, and safety laws and regulations in jurisdictions in which we operate, including those governing disposal of hazardous materials and wastes. Environmental laws and regulations can be complex and often change. These laws can give rise to strict, joint and several liability for administrative oversight costs, cleanup costs, property damage, bodily injury, fines, and penalties. Capital and operating expenses needed to comply with environmental laws and regulations can be significant, and violations may result in substantial fines and penalties or third-party damages.

Our operations involve the use of hazardous, flammable, and explosive materials in our battery and green hydrogen storage solutions. Our operations also produce hazardous wastes. We cannot eliminate the risk of contamination or injury from the generation, transportation, or disposal of such materials. In the event of contamination or injury resulting from our or our third party manufacturers' use of, or associated with the transportation or disposal of, hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties. We maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from exposure to hazardous materials with a policy limit that we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks; however, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal hazardous materials.

In addition, maintaining compliance with applicable environmental laws requires significant time and management resources and could cause delays in our ability to build out, equip and operate our facilities as well as service our fleet, which would adversely impact our business, our prospects, our financial condition, and our operating results. In addition, environmental laws and regulations such as the Comprehensive Environmental Response, Compensation and Liability Act in the United States impose liability on several grounds including for the investigation and cleanup of contaminated soil and ground water, for building contamination, for impacts to human health and for damages to natural resources. If contamination is discovered in the future at properties formerly owned or operated by us or currently owned or operated by us, or properties to which hazardous substances were sent by us, it could result in us incurring liability under environmental laws and regulations. As noted above, such liability can be strict, joint and several.

Many of our customers who have agreed to purchase our energy storage systems have high sustainability standards, and any environmental noncompliance by us could harm our reputation and impact a current or potential customer's buying decision. Additionally, in many cases we contractually commit to performing all necessary installation work on a fixed-price basis, and unanticipated costs associated with environmental remediation and/or compliance expenses may cause the

cost of performing such work to exceed our revenue. The costs of complying with environmental laws, regulations, and customer requirements, and any claims concerning noncompliance or liability with respect to contamination in the future, could have a material adverse effect on our financial condition or our operating results.

Action by governmental authorities and local residents to restrict construction or use of our systems in their localities could substantially harm our business and financial results.

In the United States and elsewhere, the construction and implementation of our systems is subject to local laws, regulations, rules and agreements regarding zoning, permitting and land use. From time to time, various interest groups lobby for or against amendments to such rules that would allow potential customers to implement our systems in locations desirable to them. In certain cases, potential customers may need to petition for changes or waivers to such rules in order to be allowed to implement our systems. In all cases, governmental authorities and local residents may oppose the implementation of our systems by our potential customers, which could cause delays, potential damage to our relationships with customers and increased costs to us and our customers. If laws, regulations, rules, or agreements significantly restrict or discourage our potential customers in certain jurisdictions from purchasing and implementing our systems, it would have a material adverse effect on our business, results of operations, and financial condition. In addition, there can be no assurance that future macroeconomic pressures and public policy concerns could continue to lead to new laws and regulations, or interpretations of existing laws and regulations, that would limit our future customers' use of our systems.

Laws, regulations and rules relating to privacy, information security, and data protection could increase our costs and adversely affect our business opportunities. In addition, the ongoing costs of complying with such laws, regulations and rules could be significant.

We are subject to various laws regarding privacy, information security and data protection. In particular, our handling of data relating to individuals is subject to a variety of laws and regulations relating to privacy, data protection, and information security, and it may become subject to additional obligations, including contractual obligations, relating to our maintenance and other processing of this data. For example, the European Union's General Data Protection Regulation, or GDPR, imposes stringent data protection requirements and provides for significant penalties for noncompliance. Laws, regulations, and other actual and potential obligations relating to privacy, data protection, and data security are evolving rapidly, and the regulatory landscape regarding privacy, data protection, and data security is likely to remain uncertain for the foreseeable future. We expect to 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 in the future, and 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. Any inability to adequately address privacy and security concerns or comply with applicable privacy and information security laws, rules and regulations could have an adverse effect on our business, prospects, results of operations, financial position and reputation.

We are subject to anti-bribery, anti-corruption, including the U.S. Foreign Corrupt Practices Act, as well as export control laws, customs laws, sanctions laws and other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures and legal expenses, any of which would adversely affect our business, financial condition and results of operations.

We are subject to anti-corruption, anti-bribery, and other similar laws and regulations in various jurisdictions in which we operate, including the U.S. Foreign Corrupt Practices Act ("FCPA"), and other anti-corruption laws and regulations. These laws generally prohibit us and our officers, directors, employees and business partners acting on our behalf, including agents, from corruptly offering, promising, authorizing or providing anything of value to obtain or retain business or otherwise obtain favorable treatment and require companies to maintain accurate books and records and a system of internal controls or adequate procedures to prevent bribery.

We are also subject to economic sanctions laws, export control laws and regulations, as well as customs regulations, in the various jurisdictions in which we operate, including those administered and enforced by the U.S. Department of Treasury's Office of Foreign Assets Control, the U.S. Department of State, the U.S. Department of Commerce, His Majesty's Treasury of the United Kingdom, the United Nations Security Council, the European Union (and its member states) and other relevant sanctions authorities.

We have implemented and maintain policies and procedures designed to promote compliance by us and our directors, officers, employees, representatives, consultants and agents with the FCPA, the Bribery Act and other anti-corruption laws, as well as economic sanctions and export controls. We cannot assure you, however, that any such policies and procedures will be sufficient or that directors, officers, employees, representatives, consultants and agents have not engaged, and will not engage, in conduct for which we may be held responsible, nor can we assure you that our business partners have not engaged, and will not engage, in conduct that could materially affect their ability to perform their contractual obligations to

us or result in our being held liable for such conduct. Violations of the FCPA, Bribery Act, other anti-corruption laws, economic sanctions, export control laws and/or anti-money laundering and anti-terrorism laws or regulations may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could have a material adverse effect on our business, financial condition and results of operations.

Changes in regulatory enforcement policies and priorities may negatively impact the management of our business, results of operations, and ability to compete.

Energy and environmental regulation is constantly changing, and policy or changes in enforcement of existing laws or regulations applicable to our business, or reexamination of current practices, could adversely impact our profitability, limit our ability to continue existing or pursue new business activities, require us to change certain of our business practices, affect retention of key personnel, or expose us to additional costs (including increased compliance costs and/or customer remediation). These changes also may require us to invest significant resources, and devote significant management attention, to make any necessary changes and could adversely affect our business. The Company's Project Development Group conducts required environmental impact and sustainability studies prior to any storage project commitment.

We are subject to licensing and operational requirements that result in substantial compliance costs, and our business would be adversely affected if we fail to obtain or maintain required licenses or if our licenses are impaired.

Our business is subject to numerous federal, state, and local laws and regulations. In particular, our business is subject to oversight and regulation under local ordinances, building, zoning and fire codes, environmental protection regulation, utility interconnection requirements, and other rules and regulations. Such licenses often require us to operate in ways that incur substantial compliance costs.

To date, we have not deployed any fully operational energy storage systems, other than the CDU. We have obtained certain permits and are in the process of obtaining additional permits for the energy storage systems that we are constructing. Although we have obtained certain required permits and believe that obtaining and renewing any remaining certificates and/or licenses will be routine, we can provide no assurance that all required certificates and/or licenses will be obtained or renewed in a timely manner. Our failure to hold a given license or certificate would impair our ability to perform our obligations under our customer contracts. The number of laws affecting our business continues to grow. If our licenses or certificates were impaired, whether by expiration, nonrenewal or modification or termination, our business would be adversely impaired.

We can give no assurances that we will properly and timely comply with all laws and regulations that may affect us. If we fail to comply with these laws and regulations, we may be subject to legal penalties, which would adversely affect our business, prospects, and results of operations.

In addition, governments, often acting through state utility or public service commissions, change or adopt different rates for commercial customers on a regular basis. These changes could affect our ability to deliver cost savings to future customers for the purchase of our energy storage systems.

Litigation, regulatory actions and compliance issues could subject us to significant fines, penalties, judgments, remediation costs, negative publicity and requirements resulting in increased expenses.

We have been and continue to be involved in legal proceedings, administrative proceedings, claims and other litigation that arise in the ordinary course of business. In addition, since our energy storage system is a new type of product in a nascent market, we may in the future need to seek the amendment of existing regulations or, in some cases, the creation of new regulations, in order to operate our business in some jurisdictions. Such regulatory processes may require public hearings concerning our business, which could expose us to subsequent litigation.

Unfavorable outcomes or developments relating to proceedings to which we are a party or transactions involving our products, such as judgments for monetary damages, injunctions, or denial or revocation of permits, could have a material adverse effect on our business, financial condition, and results of operations. To the extent such proceedings also generate negative publicity, our reputation and business could also be adversely affected. In addition, handling compliance issues and the settlement of claims could adversely affect our financial condition and results of operations.

Government reviews, inquiries, investigations, and actions could harm our business or reputation.

As we operate in various locations around the world, our operations in certain countries are subject to significant governmental scrutiny and may be adversely impacted by the results of such scrutiny. The regulatory environment with regard to our business is evolving, and officials often exercise broad discretion in deciding how to interpret and apply applicable regulations. From time to time, we receive formal and informal inquiries from various government regulatory authorities, as well as self-regulatory organizations, about our business and compliance with local laws, regulations or standards.

Any determination that our operations or activities, or the activities of our employees, are not in compliance with existing laws, regulations or standards could result in the imposition of substantial fines, interruptions of business, loss of supplier, vendor, customer or other third-party relationships, termination of necessary licenses and permits, or similar results, all of which could potentially harm our business and/or reputation. Even if an inquiry does not result in these types of determinations, regulatory authorities could cause us to incur substantial costs or require us to change our business practices in a manner materially adverse to our business, and it potentially could create negative publicity which could harm our business and/or reputation.

Risks Related to Ownership of Energy Vault's Securities

Concentration of ownership among our executive officers, directors, and their affiliates may prevent new investors from influencing significant corporate decisions.

As of December 31, 2022, our executive officers, directors and their affiliates as a group beneficially own approximately 38.4% of our outstanding common stock. As a result, these stockholders are able to exercise a significant level of control over all matters requiring stockholder approval, including the election of directors, appointment and removal of officers, any amendment of the amended and restated certificate of incorporation and approval of mergers and other business combination transactions requiring stockholder approval. This control could have the effect of delaying or preventing a change of control or changes in management and will make the approval of certain transactions difficult or impossible without the support of these stockholders.

The Company qualifies as an "emerging growth company" and "smaller reporting company" within the meaning of the Securities Act, and we take advantage of certain exemptions from disclosure requirements available to emerging growth companies, which could make our securities less attractive to investors and may make it more difficult to compare our performance to the performance of other public companies.

We qualify as an "emerging growth company" as defined in Section 2(a)(19) of the Securities Act, as modified by the JOBS Act. As such, the Company is eligible for and intends to take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies for as long as it continues to be an emerging growth company, including (a) the exemption from the auditor attestation requirements with respect to internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act, (b) the exemptions from say-on-pay, say-on-frequency and say-on-golden parachute voting requirements and (c) reduced disclosure obligations regarding executive compensation in its periodic reports and proxy statements. The Company will remain an emerging growth company until the earliest of (i) the last day of the fiscal year in which the market value of our common stock that is held by non-affiliates exceeds $700 million as of June 30 of that fiscal year, (ii) the last day of the fiscal year in which we have total annual gross revenue of $1.07 billion or more during such fiscal year (as indexed for inflation), (iii) the date on which we have issued more than $1 billion in non-convertible debt in the prior three-year period or (iv) December 31, 2026. 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 the Company is 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, the Company may not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Even after the Company no longer qualifies as an emerging growth company, we may still qualify as a "smaller reporting company," which would allow it to continue to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements, Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in its periodic reports and proxy statements. Moreover, smaller reporting companies may choose to present only the two most recent fiscal years of audited financial statements in their Annual Reports on Form 10-K.

Investors may find the Company's common stock less attractive because the Company will rely on these exemptions, which may result in a less active trading market for our common stock and its price may be more volatile.

There can be no assurance that our common stock will be able to continue to comply with the continued listing standards of the NYSE.

The shares of our common stock and warrants are listed on the NYSE. If the NYSE delists the common stock from trading on its exchange for failure to meet the listing standards, we and our stockholders could face significant material adverse consequences including:

- a limited availability of market quotations for our securities

- a determination that our common stock is a "penny stock," which will require brokers trading in our common stock to adhere to more stringent rules, possibly resulting in a reduced level of trading activity in the secondary trading market for our common stock;
- a limited amount of analyst coverage; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

We expect to continue incurring significant increased expenses and administrative burdens as a public company, which could negatively impact our business, financial condition and results of operations.

We expect to continue incurring increased legal, accounting, administrative and other costs and expenses as a public company. We expect such costs and increases to be increased further after we are no longer an emerging growth company. The Sarbanes-Oxley Act, including the requirements of Section 404, as well as rules and regulations subsequently implemented by the SEC, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the rules and regulations promulgated and to be promulgated thereunder, the Public Company Accounting Oversight Board and the securities exchanges, impose additional reporting and other obligations on public companies. Compliance with public company requirements will increase costs and make certain activities more time-consuming. A number of those requirements require us to carry out activities we have not done previously. In addition, expenses associated with SEC reporting requirements are being incurred. Furthermore, if any issues in complying with those requirements are identified (for example, if the auditors identify a significant deficiency or material weaknesses in the internal control over financial reporting), we could incur additional costs to rectify those issues, and the existence of those issues could adversely affect our reputation or investor perceptions.

In addition, we maintain director and officer liability insurance, which has substantial premiums. Advocacy efforts by stockholders and third parties may also prompt additional changes in governance and reporting requirements, which could further increase costs.

If, securities or industry analysts cease publishing research or reports about the Company, its business, or its market, or if they change their recommendations regarding the Company's securities adversely, the price and trading volume of the Company's securities could decline.

Research and reports that industry or securities analysts publish about the Company, its business, market or competitors may influence the public market for our securities. If securities or industry analysts cease coverage of the Company, the price and trading volume of our publicly traded securities would likely be negatively impacted. If any of the analysts who may cover the Company adversely change their recommendation regarding our securities, or provide more favorable relative recommendations about our competitors, the price of the our publicly traded securities would likely decline. If any analyst who may cover the Company were to cease coverage of the Company or fail to regularly publish reports on us, the Company could lose visibility in the financial markets, which in turn could cause the price or trading volume of our publicly traded securities to decline.

Because we have no current plans to pay cash dividends on the Company's common stock for the foreseeable future, you may not receive any return on investment unless you sell the Company's common stock for a price greater than that which you paid for it.

The Company may retain future earnings, if any, for future operations, expansion and debt repayment and has no current plans to pay any cash dividends for the foreseeable future. Any decision to declare and pay dividends will be made at the discretion of the Company's Board and will depend on, among other things, the Company's results of operations, financial condition, cash requirements, contractual restrictions and other factors that the Company's Board may deem relevant. In addition, the Company's ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness it or its subsidiaries incur. As a result, you may not receive any return on an investment in the Company's common stock unless you sell your shares of common stock for a price greater than that which you paid for it.

The Company may issue additional shares of common stock or other equity securities without your approval, which would dilute your ownership interests and may depress the market price of the Company's common stock.

As of June 30, 2022, the Company had warrants outstanding to purchase an aggregate of 14,067,051 shares of common stock. As of December 31, 2022, following the redemption in full of our public warrants, only 5,166,666 of private warrants remain outstanding. In addition, as of December 31, 2022, the Company was able to issue an aggregate of up to 23,768,666 shares of common stock pursuant to our 2022 Equity Incentive Plan and 8,000,000 shares of common stock pursuant to our 2022 Employment Inducement Plan (the "2022 Inducement Plan"), which amounts may be subject to increase from time to time. The Company may also issue additional shares of common stock or other equity securities of equal or senior rank in the future in connection with, among other things, future acquisitions or repayment of outstanding indebtedness, without stockholder approval, in a number of circumstances.

The issuance of additional shares or other equity securities of equal or senior rank would have the following effects:

- existing stockholders’ proportionate ownership interest in the Company will decrease;
- the amount of cash available per share, including for payment of dividends in the future, may decrease;
- the relative voting strength of each previously outstanding share of common stock may be diminished; and
- the market price of the Company’s common stock may decline.

Our stock price may be volatile or may decline regardless of our operating performance. You may lose some or all of your investment.

The trading price of our common stock is likely to be volatile. The stock market recently has experienced extreme volatility. This volatility often has been unrelated or disproportionate to the operating performance of particular companies. You may not be able to resell your shares at an attractive price due to a number of factors such as the following:

- our operating and financial performance and prospects;
- our quarterly or annual earnings or those of other companies in our industry compared to market expectations;
- conditions that impact demand for our services;
- future announcements concerning our business, our customers’ businesses, or our competitors’ businesses;
- the public’s reaction to our press releases, other public announcements, and filings with the SEC;
- the market’s reaction to our reduced disclosure and other requirements as a result of being an “emerging growth company” under the JOBS Act or a “smaller reporting company”;
- the size of our public float;
- coverage by or changes in financial estimates by securities analysts or failure to meet their expectations;
- market and industry perception of our success, or lack thereof, in pursuing our growth strategy;
- strategic actions by us or our competitors, such as acquisitions or restructurings;
- changes in laws or regulations which adversely affect the energy storage industry generally or Energy Vault specifically;
- changes in accounting standards, policies, guidance, interpretations, or principles;
- impacts from bank failures, reducing the financing options for the Company and its customers and suppliers;
- changes in senior management or key personnel;
- issuances, exchanges or sales, or expected issuances, exchanges, or sales of our capital stock;
- changes in our dividend policy;
- sales of shares of our common stock by significant shareholders;
- adverse resolution of new or pending litigation against us; and
- changes in general market, economic, and political conditions in the United States and global economies or financial markets, including those resulting from inflation including the effects of upward changes to the interest rate curves, natural disasters, terrorist attacks, acts of war, and responses to such events.

These broad market and industry factors may materially reduce the market price of our securities, regardless of our operating performance. In addition, price volatility may be greater if the public float and trading volume of the common stock is low. As a result, you may suffer a loss on your investment.

If we fail to maintain proper and effective internal control over financial reporting as a public company, our ability to produce accurate and timely financial statements could be impaired, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.

Pursuant to Section 404 of the Sarbanes-Oxley Act, the report by management on internal control over financial reporting is on our financial reporting and internal controls. The rules governing the standards that must be met for management to assess internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the Sarbanes-Oxley Act, the requirements of being a reporting company under the Exchange Act and any complex accounting rules in the future, we may need to upgrade our information technology systems;

implement additional financial and management controls, reporting systems and procedures; and hire additional accounting and finance staff.

If we are unable to hire the additional accounting and finance staff necessary to comply with these requirements, we may need to retain additional outside consultants. If we, or our independent registered public accounting firm are unable to conclude that our internal control over financial reporting is effective, investors may lose confidence in our financial reporting, which could negatively impact the market price of our common stock.

Activist stockholders may attempt to effect changes to our company, which could adversely affect our corporate governance, results of operations, and financial condition.

Campaigns by stockholders to effect changes at publicly traded companies are sometimes led by investors through various corporate actions, including Board nominations and proxy contests. We may become subject to one or more campaigns by stockholders who desire to increase stockholder value in the short term. If we become engaged in a proxy contest with an activist stockholder in the future, our business and operations could be adversely affected as responding to such contests or other activist stockholder actions would be costly and time-consuming, and we would expect that such actions would disrupt our operations and divert the attention of management and our employees from executing our strategic plans and product launch. In addition, if individuals are elected to our Board with a specific agenda or without relevant experience or expertise, it may adversely affect the ability of the Board to function effectively, as well as our ability to effectively and timely implement our strategic plans, which are focused on building shareholder value. Any perceived uncertainties as to our future direction as a result of stockholder activism or changes to the composition of our Board may lead to the perception of a change in the direction of our business and instability or lack of continuity with respect to our products which may cause concerns for our customers or be exploited by our competitors. As a result, we could experience significant volatility and a decline of our stock price, the loss of potential business opportunities and difficulties in attracting and retaining qualified personnel and customers.

Anti-takeover provisions in our certificate of incorporation, our bylaws and under Delaware law could make an acquisition of the Company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove the Company's current management.

Our certificate of incorporation and our bylaws contain provisions that may delay or prevent an acquisition of the Company or a change in its management. These provisions may make it more difficult for stockholders to replace or remove members of its Board. Because the Board is responsible for appointing the members of the management team, these provisions could in turn frustrate or prevent any attempt by its stockholders to replace or remove its current management. In addition, these provisions could limit the price that investors might be willing to pay in the future for shares of Company common stock. Among other things, these provisions include:

- the limitation of the liability of, and the indemnification of, its directors and officers;
- a prohibition on actions by its stockholders except at an annual or special meeting of stockholders;
- a prohibition on actions by its stockholders by written consent; and
- the ability of the Board to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by the Board.

Moreover, because the Company is incorporated in Delaware, it is governed by the provisions of Section 203 of the DGCL, which prohibits a person who owns 15% or more of its outstanding voting stock from merging or combining with the Company for a period of three years after the date of the transaction in which the person acquired 15% or more of the Company's outstanding voting stock, unless the merger or combination is approved in a prescribed manner. This could discourage, delay or prevent a third party from acquiring or merging with the Company, whether or not it is desired by, or beneficial to, its stockholders. This could also have the effect of discouraging others from making tender offers for the Company's common stock, including transactions that may be in its stockholders' best interests. Finally, these provisions establish advance notice requirements for nominations for election to the Board or for proposing matters that can be acted upon at stockholder meetings. These provisions would apply even if the offer may be considered beneficial by some stockholders.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal offices are located in Westlake Village, California, Vienna, Virginia, and Lugano, Switzerland. The Westlake Village office serves as our U.S. headquarters and the Lugano office serves as our international headquarters. The Westlake Village facility consists of approximately 15,767 square feet and is under a lease that expires in November 2028. The Lugano facility is under a lease that expires in July 2027. The Vienna facility is under a lease that expires in January 2024.

Item 3. Legal Proceedings

Energy Vault has been and continues to be involved in legal proceedings that arise in the ordinary course of business, the outcome of which, if determined adversely to Energy Vault, would not individually or in the aggregate have a material adverse effect on Energy Vault's business, financial condition, and results of operations. From time to time, Energy Vault may become involved in additional legal proceedings arising in the ordinary course of its business.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information for Common Stock

Our common stock is listed on the New York Stock Exchange under the ticker symbol "NRGV." Prior to February 14, 2022 and before the completion of the Merger, Novus' Class A common stock traded on the New York Stock Exchange under the ticker symbol "NXU."

Holders of Record

At April 7, 2023, there were 118 holders of record of our common stock.

Dividend Policy

We have not paid any cash dividends on our common stock to date. The payment of cash dividends in the future is dependent upon our revenues and earnings, if any, capital requirements, the terms of any indebtedness, and general financial condition. The payment of any cash dividends will be within the discretion of the Board at such time. In addition, the Board is not currently contemplating and does not anticipate declaring any stock dividends in the foreseeable future.

Securities Authorized for Issuance under Equity Compensation Plans

For information relating to securities authorized for issuance under equity compensation plans, see Part III, Item 12 of this Form 10-K.

Unregistered Sales of Equity Securities and Use of Proceeds

On the closing date of the Merger (as defined in "Management's Discussion and Analysis in Part II, Item 7 of this Annual Report), we consummated a private placement financing ("PIPE") in which certain investors purchased an aggregate of 19.5 million shares of common stock (such investors, the "Subscribers") for an aggregate purchase price of $195.0 million. The shares of common stock issued in connection with the PIPE were not registered under the Securities Act, in reliance upon the exemption provided in Section 4(a)(2) of the Securities Act. We have used and continue to use the proceeds to fund our operations. These shares issued were subsequently registered with the United States Securities and Exchange Commission in connection with Energy Vault's Registration Statement on Form S-1 filed on February 14, 2022, which became effective as of May 6, 2022.

Repurchase of Equity Securities

There were no repurchases of the Company's equity securities during 2022.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis provide information which Energy Vault's management believes is relevant to an assessment and understanding of Energy Vault's consolidated results of operations and financial condition as of December 31, 2022 and for the fiscal year ended December 31, 2022. The discussion and analysis should be read together with our audited consolidated financial statements and related notes that are included elsewhere in this Annual report on Form 10-K. This discussion may contain forward-looking statements based upon Energy Vault's current expectations that involve risks, uncertainties, and assumptions. Energy Vault's actual results may differ materially from those anticipated in these forward-looking statements. You should review the section titled "Cautionary Note Regarding Forward-Looking Statements" for a discussion of forward-looking statements and the section titled "Risk Factors," for a discussion of factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis and elsewhere in this Annual Report. Energy Vault's historical results are not necessarily indicative of the results that may be expected for any period in the future. Unless the context otherwise requires, all references in this Annual Report to "we," "our," "us," "the Company," or "Energy Vault" refer to Energy Vault Holdings, Inc., a Delaware corporation, and its subsidiaries both prior to the consummation of and following the Merger (as defined below).

Our Business

Energy Vault is a grid-scale energy storage company that is driving a faster transition to renewable power by solving the intermittence issues that are inherent to the most prevalent sources of renewable energy, solar and wind.

Our energy storage and software solutions allow utilities, independent power producers, and large energy users to manage their power portfolios. We provide turnkey energy storage solutions that meet the demands of the market for shorter duration with our BESSs and longer duration with our GESSs. In addition, our hybrid systems that incorporate other energy storage mediums, such as green hydrogen, address demand for extended duration energy storage. Our technology agnostic EMS platform once fully functional will orchestrate the management of one or more of our diverse storage mediums and the underlying generation assets to enable the delivery of power to our customers for their varied and multiple use cases.

Our solutions are designed to address the intermittency inherent in the predominant sources of renewable energy production by storing energy produced when renewable energy production is active. Once stored in our storage solutions, energy can be discharged to the grid in a controlled and reliable manner at any time, regardless of the then current ability of the renewable sources to generate power. Our energy storage solutions are designed to accommodate a wide variety of renewable power sources and to achieve an attractive levelized cost of energy relative to fossil fuels. Collectively, these abilities greatly broaden the use cases and time duration scenarios that can be addressed by certain sources of renewable power.

The Company's portfolio of market-ready turnkey energy storage solutions currently includes:

- Battery energy storage systems ("BESS") are our integrated solutions to meet shorter-duration storage needs.
- Gravity energy storage systems ("GESS") include our proprietary EVx solution to meet longer-duration storage needs.
- Green hydrogen energy storage systems ("gHESS") are our integrated solutions to meet extended duration storage needs.
- Hybrid energy storage systems ("HESS") are our uniquely integrated solutions which allow the pairing of various energy storage mediums to meet specific customer needs.
- Energy management software platform ("EMS") is our proprietary solution designed by our Energy Vault Solutions ("EVS") division that orchestrates the management of one or more of our diverse storage mediums, along with the underlying generation assets to enable the delivery of power to our customers for their varied and multiple use cases.

Recent Developments

In January 2022, Energy Vault signed a license and royalty agreement for renewable energy storage with Atlas Renewable LLC ("Atlas"), which is majority owned by China Tianying Inc., an international environmental management and waste remediation corporation engaged in smart urban environmental services, resource recycling and recovery, and zero-carbon clean energy technologies. The agreement supports the deployment of Energy Vault's proprietary gravity energy storage technology and energy management software platform within mainland China and the Special Administrative Regions of Hong Kong and Macau. Atlas agreed to pay $50.0 million in IP licensing fees, for use and deployment of Energy Vault's gravity energy storage technology. The Company has collected all $50.0 million as of December 31, 2022.

In connection with the Company's licensing agreement with Atlas, the Company agreed to make a refundable contribution to Atlas in the amount up to $25.0 million during the period in which Atlas constructs its first GESS. As of December 31, 2022, the Company has contributed all $25.0 million. The refundable contribution will be returned to the Company upon Atlas' first GESS reaching substantial completion, subject to adjustment for potential liquidated damages if certain performance metrics are not met.

In April 2022, the Company purchased a $2.0 million convertible promissory note from DG Fuels, LLC ("DG Fuels"). The maturity date of the note is the earlier of (i) 30 days after a demand for payment is made by the Company at any time after the two year anniversary of the date of issuance of the note; (ii) the four year anniversary of the date of issuance of the note; (iii) five days following a Financial Close ("Financial Close" means a project finance style closing by DG Fuels or its subsidiary of debt and equity capital to finance the construction of that certain biofuel facility currently under development by DG Fuels), or (iv) upon an event of default determined at the discretion of the Company. The note has an annual interest rate of 10.0%. The Company intends to hold and convert the DG Fuels Note into the equity securities issued by DG Fuels in their next equity financing round that is greater than $20.0 million at a 20% discount to the issuance price. The principal balance and unpaid accrued interest on the DG Fuels Note will, at the option of the Company, convert into equity securities upon the closing of such next equity financing round.

On July 1, 2022, Energy Vault delivered a notice of redemption for all of its outstanding public warrants to purchase shares of Energy Vault common stock. After delivering the notice of redemption, 2.2 million shares of common stock were issued upon the cashless exercise of 8.7 million public warrants. 0.2 million in unexercised and outstanding Public Warrants as of

August 1, 2022 were redeemed at a price of $0.10 per warrant. No Public Warrants remain outstanding as of December 31, 2022.

In August 2022, the Company entered into two contracts with Jupiter Power ("Jupiter"), a leading battery energy storage developer and owner/operator of utility-scale battery energy storage projects in the United States, whereby Energy Vault will supply equipment, engineering, procurement, construction, balance of plant services, and the energy management software for two of Jupiter's battery energy storage projects. The projects include a 100 MW (200 MWh) BESS near Fort Stockton, Texas, which will provide energy and ancillary services to ERCOT, and a 10 MW (20 MWh) system in Carpinteria, California, to provide grid services through participation in the CAISO Resource Adequacy program as well as energy resiliency in southern California. The projects will provide critically needed dispatchable capacity to these electricity markets and are expected to be completed in 2023.

In September 2022, the Company entered into a contract with Wellhead Electric Company, Inc. and W Power, LLC, ("W Power"), a woman-owned business enterprise that has developed and owned power generation facilities in California, whereby Energy Vault will construct a 68.8 MW (275.2 MWh) BESS at W Power's Energy Reliability Center in Stanton, California. The project is on an accelerated timeline to meet critical power needs for southern California and is expected to be completed by mid-2023.

In November and December 2022, the Company entered into license and royalty agreements with two customers in the Middle East and Europe, respectively, to deploy Energy Vault's proprietary gravity energy storage technology and energy management software platform.

In December 2022, the Company entered into a contract with NV Energy, whereby Energy Vault will construct a 220 MW (440 MWh) grid-tied BESS at a site located near Las Vegas, Nevada. The two-hour energy storage system is designed to store and dispatch excess renewable energy, including wind and solar power. The BESS will be charged and discharged on a daily basis and designed to dispatch stored renewable energy at peak consumption hours to help meet the high demand during Nevada's peak load hours. Construction is anticipated to begin during the second quarter of 2023 with commercial operation expected by the end of 2023.

In December 2022, the Company entered into a tolling arrangement with Pacific Gas and Electric Company ("PG&E"), a subsidiary of PG&E Corporation (NYSE: PCG), in which Energy Vault and PG&E are partnering to deploy and operate a utility-scale battery plus green hydrogen long-duration energy storage system ("BH-ESS") with a minimum of 293 MWh of dispatchable carbon-free energy, with the potential to further expand the project's capacity up to 700 MWh. The BH-ESS is designed to power downtown and the surrounding area of the Northern California city of Calistoga for a minimum of 48 hours during planned outages and potential public safety power shutoffs, which is when the power lines serving the surrounding area must be turned off for safety due to high wildfire risk. The energy storage system will be owned, operated, and maintained by Energy Vault while providing dispatchable power under a long-term tolling arrangement with PG&E. Construction is anticipated to begin during the fourth quarter of 2023 with commercial operation expected by the end of the second quarter of 2024.

Business Combination and Public Company Costs

On February 11, 2022, Legacy Energy Vault completed the Merger. Immediately following the completion of the Merger, Novus changed its name to Energy Vault Holdings, Inc. On February 14, 2022, Energy Vault's common stock and warrants began trading on the New York Stock Exchange under the symbols "NRGV" and "NRGV WS," respectively.

The Merger was accounted for as a reverse recapitalization in accordance with United States Generally Accepted Accounting Principles ("GAAP"). Under this method of accounting, Novus was treated as the "acquired" company for financial reporting purposes. Accordingly, for accounting purposes, the financial statements of the combined entity upon consumption of the Merger represented a continuation of the financial statements of Legacy Energy Vault with the Merger being treated as the equivalent of Legacy Energy Vault issuing stock for the net assets of Novus, accompanied by a recapitalization. The net assets of Novus are stated at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Merger are presented as those of Legacy Energy Vault in future reports of the combined entity. All periods prior to the Merger have been retroactively adjusted using the exchange ratio of 6.7735 (the "Exchange Ratio") for the equivalent number of shares outstanding immediately after the Merger to effect the reverse recapitalization.

Energy Vault raised gross proceeds of $235.9 million, including the contribution of $40.9 million of cash, net of redemptions, held in Novus' trust account from its initial public offering and an aggregate purchase price of $195.0 million from the sale and issuance of shares of common stock in a private placement ("Private Investment in Public Equity" or "PIPE") at $10.00 per share. Energy Vault and Novus paid $44.8 million in transaction costs, resulting in total net cash proceeds to Energy Vault from the Merger and PIPE of $191.1 million. See Note 1 and Note 3, in Part II, Item 8. "Financial Statements and Supplementary Data" for additional information about the Merger.

As a result of the Merger, Energy Vault became the successor to a publicly reporting company, which has required the hiring of additional personnel and the implementation of procedures and processes to comply with public company regulatory requirements, including the Exchange Act, and customary practices. We have incurred and expect to continue to incur additional annual expenses as a public company for, among other things, directors' and officers' liability insurance, director fees, and additional internal and external accounting, legal, and administrative resources, including increased audit and legal fees.

Key Factors and Trends Affecting our Business

We believe that our performance and future success depend upon several factors that present significant opportunities for us, but also pose risks and challenges including those discussed below and in Part I, Item 1A. "Risk Factors."

Product Development and Deployment Plan

We leverage our sustainable and differentiated technology to provide our customers with an economical solution to meet their shorter, longer, and extended-duration renewable energy storage needs. We believe that the majority of our competitors are primarily focused on the development and marketing of vertically siloed solutions based on a singular energy storage technology. We anticipate that our market will be characterized by high growth and rapidly evolving use cases and requirements. As a result, we have strategically chosen to design an agile and agnostic software platform that can orchestrate the management of one or more of our diverse storage mediums and the underlying power generation assets to harmonize asset operation and maximize economic return for our customers. This full spectrum of energy storage solutions assures our customers that we not only have what they need today, but that we also have what they will need in the future, thereby protecting their investments in our products. For these reasons, we believe we are well positioned to compete successfully in the evolving market for energy storage solutions.

Our project delivery generally relies on third-party EPC firms to construct our storage systems, under our supervision with dedicated teams tasked with project management. Our current business model options include:

- Building, operating, and transferring energy storage projects to potential customers,
- Building, operating, and holding energy storage systems as equity (co-) sponsor that may provide recurring revenue in the future,
- Recurring software revenue through licensing software for asset management and use case applications,
- Recurring service revenue through long term service agreements, and
- Intellectual property licenses and royalties associated with our energy storage technologies that may provide recurring revenues in the future.

Our cost projections are heavily dependent upon raw materials (such as steel), equipment (such as motors, batteries, inverters, and power electronic devices) and technical and construction service providers (such as engineering, procurement, construction firms). The global supply chain, on which Energy Vault relies, has been significantly impacted by (i) the COVID-19 pandemic, (ii) economic uncertainties, including the war in Ukraine, and (iii) high inflation pressure on project budgeting resulting in potential significant delays and cost fluctuations, particularly with respect to microchips and many other raw materials that are within the motor and power electronic supply chains. These future timing and financial developments may impact Energy Vault's performance from both a deployment and cost perspective.

To date, the only operating energy storage system that utilized Energy Vault's technologies was the CDU. Energy Vault used the CDU for testing and software improvements until it was decommissioned in September 2022. Building on its experience with the CDU, Energy Vault designed its EVx system. The EVx system is designed to be modular and flexible to address longer duration energy storage needs, such as when there are power outages or for powering industrial processes over long periods. There are no commercial installations of Energy Vault's EVx system at this time.

Energy Storage Industry

The growth of the energy storage market that we address is primarily driven by the decreasing cost of renewable power generation sources, government mandates, financial incentives to reduce CO2 emissions, and increasing geopolitical pressures driving energy independence goals. These dynamics are in turn driving demand for additional renewable power generation and increased capacity and storage duration in energy storage solutions.

According to a BloombergNEF analysis published in October 2022, demand for clean energy is growing rapidly, with renewable energy expected to supply nearly two-thirds of the world's electricity demand by 2050. Global energy storage additions are on track to grow at a 21% compound annual growth rate through 2030, with annual additions reaching 233 GWhs and cumulative capacity reaching nearly 400 GWhs. Both government mandates and companies focused on

reducing energy use, cost, and emissions will propel the shift to renewable sources of power. We believe we are well-positioned to capitalize on this opportunity through our competitive pricing and scalability, and the environmentally friendly attributes of our energy storage solutions that cover the spectrum from shorter durations to extended durations.

During 2022, the United States Congress passed the IRA. The IRA provides incentives for the domestic manufacturing of key components of energy storage solutions as well as the construction of standalone energy storage projects. The resulting improved economics are expected to reduce the cost to implement storage within the domestic market and may amplify and accelerate the adoption of energy storage systems for shorter, longer, and extended duration use cases, like those offered by Energy Vault.

Our business depends on the acceptance of our energy storage products in the marketplace. Even if renewable energy and energy storage become more widely adopted than they have been to date, potential customers may choose energy storage products from our competitors.

Increasing Deployment of Renewable Energy

Deployment of renewable energy resources has accelerated over the last decade, and solar and wind have become a low cost energy source. Energy storage is critical to reducing the intermittency and volatility of renewable energy generation. However, there is no guarantee that the deployment of renewable energy will occur at the rate that is expected. Inflationary pressures, supply chain disruptions, geopolitical stresses, and other factors could result in fluctuations in demand for and deployment of renewable energy resources, adversely affecting our revenue and ability to generate profits in the future.

Competition

The market for our products is competitive, and we may face increased competition as new and existing competitors introduce energy storage solutions and components. Furthermore, as we expand our services and digital applications in the future, we may face other competitors including software providers and hardware manufacturers that offer software solutions. If our market share declines due to increased competition or if we are not able to compete as we expect, our revenue and ability to generate profits in the future may be adversely affected.

Inflation

In the markets in which we operate, there have been higher rates of inflation in recent months. If inflation continues to increase in our markets, it may increase our expenses that we may not be able to pass through to customers. It may also increase the costs of our products that could negatively impact their competitiveness.

Key Components of Results of Operations

The following discussion describes certain line items in our Consolidated Statements of Operations and Comprehensive Loss.

Revenue

Prior to 2022, the Company was primarily involved in research and development activities. The Company began generating revenue from its product offerings during 2022, primarily from the licensing of our GESS EVx solution and from the sale of our BESSs. We expect to generate revenue in the future from the sale and licensing of the Company’s energy storage solutions, EMS, additional software applications, and long-term services agreements, including pursuant to tolling arrangements in connection with energy storage systems that we intend to own and operate.

Our revenue is affected by changes in the price, volume, and mix of products and services purchased by our customers, which is driven by the demand of our products, geographic mix of our customers, strength of competitor’s product offerings, and the availability of government incentives to the end-users of our products.

Our revenue growth is dependent on continued growth in the amount of energy storage systems constructed each year and our ability to increase our share of demand in the geographic regions where we currently compete and plan to compete in the future. Additionally, our revenue growth is dependent on our ability to continue to develop and commercialize new and innovative products to meet our customer’s energy storage needs.

Cost of Revenue

Cost of revenue primarily consists of product costs, including batteries and supplies, as well as subcontractor costs, direct labor, and consulting expenses associated with constructing energy storage systems and providing construction support services to Atlas.

Our cost of revenue is affected by underlying costs for batteries, inverters, enclosures, and cables, as well as the cost of subcontractors to provide construction services.

Gross Profit and Gross Profit Margin

Gross profit and gross profit margin may vary from period to period due to the timing of when control of significant uninstalled materials are transferred to customers under contracts to sell energy storage systems. When control of significant uninstalled materials are transferred to customers, the Company recognizes revenue in an amount equal to the cost of those materials. The profit margin inherit in these materials is deferred until the Company performs on its obligation to install the materials during construction of the energy storage systems. As a result, gross profit and gross profit margin will vary from period to period depending on the timing of revenue recognition related to uninstalled materials.

Additionally, gross profit and gross profit margin may vary from period to period due to our sales volume, product prices, product costs, product mix, geographical mix, and the timing of when we perform installation and construction services.

Sales and Marketing Expenses

Sales and marketing expenses consist primarily of internal personnel-related costs for marketing, sales, and related support teams and external costs such as professional service costs, trade shows, marketing and sales related promotional materials, public relations expenses, website operating and maintenance costs. Personnel-related expenses consist of salaries, benefits, and stock-based compensation expense. We expect that our sales and marketing expenses will increase over time as we continue to hire additional personnel to support the overall growth in our business.

Research and Development Expenses

Research and development expenses consist primarily of internal and external expenses incurred in connection with our research activities and development programs that include materials costs directly related to product development, testing and evaluation costs, construction costs including labor and transportation of material, overhead related costs and other direct expenses consisting of personnel-related expenses and consulting expenses relating to study of product safety, reliability and development. Personnel-related expenses consist of salaries, benefits, and stock-based compensation expense. We expect our research and development costs to increase for the foreseeable future as we continue to invest in these activities to achieve our product design, engineering, and development roadmap.

General and Administrative Expenses

General and administrative expenses consist of information technology expenses, legal and professional fees, travel costs, and personnel-related expenses for our corporate, executive, finance, and other administrative functions, including expenses for professional and contract services. Personnel-related expenses consist of salaries, benefits, and stock-based compensation expense. To a lesser extent, general and administrative expense includes depreciation, investor relations costs, insurance costs, rent, office expenses, and maintenance costs. We expect our general and administrative expenses to increase in the foreseeable future as we hire personnel to meet 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 requirements, investor relations fees, SOX 404 implementation fees, and other administrative and professional services.

Asset Impairment

Energy Vault began building a prototype of the EV1 in March 2020, resulting in the CDU, which was connected to the Swiss national grid in July 2020. Thereafter, through design improvements and refinements of its technology, Energy Vault announced the new EVx platform in 2021 and the Company dismantled the CDU in September 2022. The Company has recognized various impairments related to the CDU when components have been damaged or become obsolete.

Interest Expense

Interest expense consists primarily of interest related to finance leases.

Change in Fair Value of Warrant Liability

The Company’s warrants are subject to fair value remeasurement at each balance sheet date. The Company expects to incur incremental income (expense) in the consolidated statements of operations for the fair value change for the outstanding warrant liabilities at the end of each reporting period or through the exercise of such warrants. With the completion of the redemption of Energy Vault’s public warrants on August 1, 2022, Energy Vault currently expects to incur incremental

income (expense) in its consolidated statements of operations for the fair value change for outstanding warrant liabilities at the end of each reporting period in respect of outstanding private warrants.

Transaction Costs

Transaction costs consist of legal, accounting, banking fees, and other costs directly related to the consummation of the Merger and the PIPE.

Other Income (Expense), Net

Other income (expense), net consists primarily of interest income from our money market funds, as well as gains and losses related to foreign exchange transactions.

Key Operating Metrics

Bookings

Bookings represents the total MWhs to be delivered and the aggregate contracted value for energy storage systems, tolling arrangements, and license and service agreements signed during the period. The aggregate contracted value excludes any potential future variable payments or royalties.

The following table presents bookings for the periods indicated ($ in thousands):

	Year Ended December 31,		
	2022	2021	Change
Bookings [MWh]	1,635	—	1,635
Bookings [$]	$ 540,086	$ —	$ 540,086

Backlog

Backlog represents the amount of revenue we expect to realize in the future on uncompleted construction contracts, including new contracts under which work has not yet begun, as well as the remaining revenue to be recognized under the Company's intellectual property licensing agreements. As of December 31, 2022, backlog totaled $331.0 million.

The Company expects to realize the majority of the backlog as of December 31, 2022 over the next twelve months. Timing of revenue for construction and installation projects included in our backlog can be subject to change as a result of customer, regulatory, or other delays or cancellations including from economic or other conditions caused by supply chain disruptions, inflation, weather, and/or other project-related factors. These effects, among others, could cause estimated revenue to be realized in periods later than originally expected, or not at all. Customers may postpone or cancel construction projects due to changes in our customer's spending plans, market volatility, changes in government permitting, regulatory delays, and/or other factors. There can be no assurance as to our customer's requirements or if actual results will be consistent with our estimates. As a result, our backlog as of any particular date is an uncertain indicator of future revenue and earnings.

Backlog is a common measurement used in our industry. Our methodology for determining backlog may not, however, be comparable to the methodologies used by others. The Company's backlog agrees with the amount of our remaining performance obligations, which are described in Note 4 - *Revenue Recognition.*

Results of Operations

Consolidated Comparison of Year Ended December 31, 2022 to Year Ended December 31, 2021

The following table sets forth our results of operations for the periods indicated (amounts in thousands):

	Year Ended December 31,		
	2022	2021	$ Change
Revenue	$ 145,877	$ —	$ 145,877
Operating Expenses:			
Cost of revenue	86,580	—	86,580
Sales and marketing	12,582	845	11,737
Research and development	50,058	7,912	42,146
General and administrative	56,912	18,056	38,856
Asset impairment	2,828	2,724	104
Loss from operations	**(63,083)**	**(29,537)**	**(33,546)**
Other Income (Expense):			
Interest expense	(2)	(7)	5
Change in fair value of warrant liability	2,330	—	2,330
Transaction costs	(20,586)	—	(20,586)
Other income (expenses), net	3,469	(1,793)	5,262
Loss before income taxes	**$ (77,872)**	**$ (31,337)**	**$ (46,535)**

Revenue

The Company recognized revenue for the product and service categories as follows for the years ended December 31, 2022 and 2021 (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Build and transfer energy storage products	$ 85,636	$ —
Licensing of intellectual property	58,483	—
Other	1,758	—
Total revenue	$ 145,877	$ —

Revenue for the year ended December 31, 2022 was $145.9 million compared to no revenue for the year ended December 31, 2021. Revenue for the year ended December 31, 2022 consisted of $85.6 million from the building and transferring of energy storage products and $58.5 million from the licensing of the Company's EVx intellectual property. Additionally, the Company recognized other revenue of $1.8 million related the Company providing construction support services to Atlas during the year ended December 31, 2022. Revenue from two customers represented 57% and 35%, respectively, of the Company's total revenue for the year ended December 31, 2022.

Cost of Revenue

Cost of revenue was $86.6 million for the year ended December 31, 2022 compared to no cost of revenue for the year ended December 31, 2021. Cost of revenue for the year ended December 31, 2022 was primarily attributable to the cost of batteries related to the build and transfer of its battery storage projects. Cost of revenue also included subcontractor costs on its battery storage projects, and direct labor and consulting expenses related to providing construction support services to Atlas.

Gross Profit and Gross Profit Margin

Gross profit was $59.3 million and gross profit margin was 40.6% for the year ended December 31, 2022. Gross profit in 2022 was primarily attributable to the Company's intellectual property licensing revenue, which did not have any associated cost of revenue.

Sales and Marketing Expenses

Sales and marketing expenses increased by $11.8 million to $12.6 million for the year ended December 31, 2022, compared to $0.8 million for the year ended December 31, 2021. The increase was primarily attributable to an increase in

personnel-related expenses of $8.9 million, an increase in marketing and public relations costs of $1.5 million, an increase in consulting costs of $0.6 million, and an increase in travel related expenses of $0.6 million. The increase in personnel costs was due to expanded headcount, particularly at the senior levels, and increased stock-based compensation expense. Stock-based compensation expense was $5.1 million for the year ended December 31, 2022, compared to $0.1 million for the year ended December 31, 2021.

Research and Development Expenses

Research and development expenses increased by $42.2 million to $50.1 million for the year ended December 31, 2022, compared to $7.9 million for the year ended December 31, 2021. The increase was primarily attributable to a $22.3 million increase in personnel-related expenses, a $7.5 million increase in depreciation expense, a $7.0 million increase in engineering and development costs, a $3.1 million increase in software expenses, a $1.2 million increase in consulting costs, and a $1.0 million increase in travel related expenses. The increase in personnel costs was due to expanded headcount, particularly at the senior levels, and increased stock-based compensation expense. Stock-based compensation expense was $14.8 million for the year ended December 31, 2022, compared to $0.4 million for the year ended December 31, 2021. The increase in depreciation expense primarily relates to depreciation on the CDU and related components.

General and Administrative Expenses

General and administrative expenses increased by $38.8 million to $56.9 million for the year ended December 31, 2022, compared to $18.1 million for the year ended December 31, 2021. The increase was primarily attributable to a $25.7 million increase in personnel-related expenses, a $6.3 million increase in legal and professional fees, a $2.5 million increase in consulting costs, a $1.8 million in travel related expenses, a $1.7 million increase in insurance costs, a $1.1 million increase in software expenses, and a $0.8 million increase in employee recruiting costs. The increase in personnel costs was due to expanded headcount and an increase in stock-based compensation expense. Stock-based compensation expense was $21.2 million for the year ended December 31, 2022, compared to $0.1 million for the year ended December 31, 2021. The increase in legal and professional fees was attributable to external costs such as accounting, finance, tax, compliance, auditing, legal, and other professional fees associated with becoming a public company. These increases in general administrative expenses were partially offset by a $1.2 million decrease in depreciation expense.

Asset Impairment

Asset impairment was $2.8 million for the year ended December 31, 2022, compared $2.7 million for the year ended December 31, 2021. Asset impairment for the year ended December 31, 2022 related to the CDU and the brick machines used to manufacture bricks for the EV1 tower design. The Company completed the dismantling of the CDU during 2022.

Asset impairment of $2.7 million for the year ended December 31, 2021 related to components of the CDU that were damaged. This impairment and other related costs were partially offset by an insurance claim received by the Company. Additionally, other components, which were not previously installed, were reclassified into prepaid expenses and other current asset at their estimated net realizable value during 2021.

Change in Fair Value of Warrant Liability

The Company recognized a gain of $2.3 million related to the change in the fair value of the Company's warrant liability for the year ended December 31, 2022 due to a decrease in the fair value of our outstanding warrants since the Closing of the Merger. The Company did not have any outstanding warrants during the year ended December 31, 2021.

Transaction Costs

The Company recognized transaction costs of $20.6 million related to the consummation of the Merger during the year ended December 31, 2022. The Company did not recognize any transaction costs during 2021.

Other Income (Expense), Net

Other income (expense), net improved by $5.3 million to other income, net of $3.5 million for the year ended December 31, 2022 compared to other expense, net of $1.8 million for the year ended December 31, 2021. The improvement was primarily attributable to an increase in interest income and positive fluctuations in foreign currency transaction gain and losses.

Liquidity and Capital Resources

Sources of Liquidity

Since inception, we have financed our operations primarily through the issuance and sale of equity and the proceeds from the Merger and the PIPE. Energy Vault completed the Merger and PIPE on February 11, 2022, pursuant to which we

received net proceeds of $191.1 million. As of December 31, 2022, we had cash, cash equivalents, and restricted cash of $286.2 million. Our cash equivalents are highly liquid investments purchased with an original or remaining maturities of three months or less. Substantially all of our restricted cash balance is held by banks as collateral for the Company's letters of credit.

	December 31,	
(amounts in thousands)	2022	2021
Cash, cash equivalents, and restricted cash:		
Cash and cash equivalents	$ 203,037	$ 105,125
Restricted cash	83,145	—
Total cash, cash equivalents, and restricted cash	$ 286,182	$ 105,125

Short-Term Liquidity

Management believes that its cash, cash equivalents, and restricted cash on hand as of December 31, 2022 will be sufficient to fund our operating activities for at least the next twelve months without regard to any cash proceeds we received or may in the future receive upon the exercise for cash of our private warrants. The exercise price for our private warrants is $11.50 per warrant, subject to certain specified adjustments. To the extent that the price of our common stock exceeds $11.50 per share, it is more likely that our private warrant holders will exercise their warrants. To the extent that the price of our common stock declines, including a decline below $11.50 per share, it is less likely that our private warrant holders will exercise their warrants.

In addition, should Energy Vault enter into definitive collaboration and/or joint venture agreements or engage in business combinations in the future, we may be required to seek additional financing.

Energy Vault has incurred negative operating cash flows and operating losses in the past. We may continue to incur operating losses in the future due to our-going research and development activities. We may seek additional capital through equity and/or debt financings depending on market conditions. If we are required to raise additional funds by issuing equity securities, dilution to stockholders would result. Any equity securities issued may also provide for rights, preferences or privileges senior to those of holders of our common stock. If we raise funds by issuing debt securities, these debt securities would have rights, preferences and privileges senior to those of holders of common stock. The terms of debt securities or borrowings could impose significant restrictions on our operations. The credit market and financial services industry have in the past, and may in the future, experience periods of uncertainty that could impact the availability and cost of equity and debt financing.

Licensing Agreements with Extended Payment Terms

The Company has licensed its EVx intellectual property and certain of these agreements contain extended payment terms. Expected cash inflows from all licensing agreements with extended payment terms as of December 31, 2022 are as follows:

Year ended December 31,	Amount
2023	$ 1,600
2024	1,500
2025	5,250
2026	2,750
2027	2,750
Thereafter	13,750
Total	$ 27,600

Contractual Obligations

Our principal commitments as of December 31, 2022 consisted primarily of obligations under operating leases, finance leases, deferred pensions, and issued purchase orders. Our non-cancellable purchase obligations as of December 31, 2022 totaled approximately $50.2 million.

Cash Flows

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

	Year Ended December 31,	
	2022	2021
Net cash used in operating activities	$ (23,346)	$ (22,066)
Net cash used in investing activities	(13,319)	(1,170)
Net cash provided by financing activities	217,771	116,379
Effects of exchange rate changes on cash	(49)	1,931
Net increase in cash, cash equivalents, and restricted cash	$ 181,057	$ 95,074

Operating Activities

During the years ended December 31, 2022 and 2021, cash used in operating activities totaled $23.3 million and $22.1 million, respectively. During the year ended December 31, 2022, cash used in operating activities was negatively impacted by a net loss of $78.3 million, an increase in accounts receivable of $37.5 million, an increase in contract assets of $29.0 million, an increase in prepaid and other current assets of $29.6 million, an increase in customer financings receivable of $9.7 million, and an increase in inventory of $4.4 million. Operating cash flows were positively impacted by non-cash charges of $49.6 million, an increase in accounts payable and accrued expenses of $67.9 million, and an increase in contract liabilities of $49.4 million. The non-cash charges primarily consisted of $41.1 million in stock-based compensation expense, $7.7 million in depreciation and amortization expense, and $2.8 million in asset impairments, partially offset by a $2.3 million gain from the change in fair value of the Company's warrant liability.

During the year ended December 31, 2021, cash used in operating activities of $22.1 million was negatively impacted by a net loss of $31.3 million. Operating cash flows were positively impacted by non-cash charges of $6.3 million and an increase in accounts payable and accrued expenses of $3.0 million. Non-cash charges primarily consisted of $3.2 million related to the write-down of inventory, $2.3 million in depreciation and amortization expense, $0.5 million in stock-based compensation expense, and $0.1 million in non-cash lease expenses.

Investing Activities

During the years ended December 31, 2022 and 2021, cash used in investing activities totaled $13.3 million and $1.2 million, respectively. Cash used in investing activities for the year ended December 31, 2022 consisted of $9.0 million for the purchase of equity securities, $2.3 million for the purchase of property and equipment, and $2.0 million for the purchase of a convertible note. The Company purchased $9.0 million of equity securities as part of a strategic investment in a company that is active in the energy transition industry.

Cash used in investing activities for the year ended December 31, 2021 consisted of $1.0 million for the purchase of a convertible note and $0.2 million for the purchase of property and equipment.

Financing Activities

During the years ended December 31, 2022 and 2021, cash provided by financing activities totaled $217.8 million and $116.4 million, respectively. For the year ended December 31, 2022, cash provided by financing activities was primarily attributable to $235.9 million in proceeds from the reverse recapitalization and PIPE financing, net, and $7.9 million in proceeds from the exercise of warrants. Partially offsetting these cash inflows was $20.7 million in transaction cost payments related to the reverse recapitalization and $5.5 million in tax payments related to the net settlement of equity awards.

During the year ended December 31, 2021, cash provided by financing activities was primarily attributable to $105.4 million in net proceeds from the issuance of Series C preferred stock and $15.3 million in net proceeds from the issuance of Series B-1 preferred stock. Partially offsetting these cash inflows was $3.6 million in payments related to Merger transaction costs and $0.8 million in debt repayments.

Non-GAAP Financial Measure

We use adjusted EBITDA to complement our consolidated statements of operations. Management believes that this non-GAAP financial measure complements our GAAP net loss and such measure is useful to investors. The presentation of this non-GAAP measure is not meant to be considered in isolation or as an alternative to GAAP net loss as an indicator of our performance.

The following table provides a reconciliation from non-GAAP adjusted EBITDA to GAAP net loss, the most directly comparable GAAP measure (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Net loss (GAAP)	$ (78,299)	$ (31,338)
Non-GAAP Adjustments:		
Interest income, net	(3,693)	(57)
Income tax expense	427	1
Depreciation and amortization	7,743	2,320
Stock-based compensation expense	41,058	500
Change in fair value of warrant liability	(2,330)	—
Transaction costs	20,586	—
Asset impairment	2,828	2,724
Foreign exchange losses	316	1,878
Adjusted EBITDA (non-GAAP)	$ (11,364)	$ (23,972)

We present adjusted EBITDA, which is net loss excluding adjustments that are outlined in the quantitative reconciliation provided above, as a supplemental measure of our performance and because we believe this measure is frequently used by securities analysts, investors, and other interested parties in the evaluation of companies in our industry. The items excluded from adjusted EBITDA are excluded in order to better reflect our continuing operations.

In evaluating adjusted EBITDA, one should be aware that in the future we may incur expenses similar to the adjustments noted above. Our presentation of adjusted EBITDA should not be construed as an inference that our future results will be unaffected by these types of adjustments. Adjusted EBITDA is not a measurement of our financial performance under GAAP and should not be considered as an alternative to net loss, operating loss, or any other performance measures derived in accordance with GAAP or as an alternative to cash flow from operating activities as a measure of our liquidity.

Our adjusted EBITDA measure has limitations as an analytical tool, and should not be considered in isolation or as a substitute for analysis of our results as reported under GAAP. Some of these limitations are:

- it does not reflect our cash expenditures, future requirements for capital expenditures, or contractual commitments;
- it does not reflect changes in, or cash requirements for, our working capital needs;
- it does not reflect stock-based compensation, which is an ongoing expense;
- although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and our adjusted EBITDA measure does not reflect any cash requirements for such replacements;
- it is not adjusted for all non-cash income or expense items that are reflected in our consolidated statements of cash flows;
- it does not reflect the impact of earnings or charges resulting from matters we consider not to be indicative of our ongoing operations;
- it does not reflect limitations on or costs related to transferring earnings from our subsidiaries to us; and
- other companies in our industry may calculate this measure differently than we do, limiting its usefulness as a comparative measure.

Because of these limitations, adjusted EBITDA should not be considered as a measure of discretionary cash available to us to invest in the growth of our business or as a measure of cash that will be available to use to meet our obligations. You should compensate for these limitations by relying primarily on our GAAP results and using adjusted EBITDA only supplementally.

Off-Balance Sheet Commitments and Arrangements

The Company has not entered into off-balance sheet arrangements, as defined in the rules and regulations of the SEC as of December 31, 2022.

Critical Accounting Policies and Use of Estimates

Our consolidated financial statements are prepared in conformity with GAAP. In preparing our financial statements, we make assumptions, judgments, and estimates based on historical experience and various other factors that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates under different assumptions and conditions.

We believe that the following accounting policies involve a high degree of judgment and complexity. Accordingly, these are the policies we believe are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations. For more information on our significant accounting policies, refer to Note 2 - *Summary of Significant Accounting Policies* of our audited consolidated financial statements included in this Annual Report on Form 10-K.

Revenue

Effective January 1, 2022, Energy Vault's revenue recognition policy is a critical policy due to the adoption of the guidance from ASC 606, Revenue from Contracts with Customers. We determine the amount of revenue to be recognized through the application of the following steps:

(1) Identification of the contract, or contracts, with a customer.

(2) Identification of the performance obligations in the contract.

(3) Determination of the transaction price.

(4) Allocation of the transaction price to the performance obligations in the contract.

(5) Recognition of revenue when, or as, a performance obligation is satisfied.

The Company identifies performance obligations in our contracts with customers. The transaction price is determined based on the amount which the Company expects to be entitled to in exchange for providing the promised goods and services to the customer. The transaction price in the contract is allocated to each distinct performance obligation on a relative standalone selling price basis. Revenue is recognized when performance obligations are satisfied. When a part or all of the consideration is considered to be variable, an estimate of the unconstrained amount is recognized in the transaction price. Changes in variable consideration may result in an increase or a decrease to revenue.

Building Energy Storage Projects: The Company enters into contracts with utility companies and independent power producers to build energy storage projects. The Company determines the transaction price based on the consideration expected to be received, which includes estimates of liquidated damages or other variable consideration. Generally, each contract to design and construct an energy storage project contains one performance obligation. Multiple contracts entered into with the same customer and near the same time to construct energy storage projects are combined in accordance with ASC 606. In these situations, the contract prices are aggregated and then allocated to each energy storage project based upon their relative stand-alone selling price.

The Company recognizes revenue over time as a result of the continuous transfer of control of its products to the customer. The continuous transfer of control to the customer is supported by clauses in the contracts that provide enforceable rights to payment of the transaction price associated with work performed to date for products that do not have an alternative use to the Company and/or the project is built on the customer's land that is under the customer's control.

Revenue for these performance obligations is recognized using the percentage of completion method based on cost incurred as a percentage of total estimated contract costs. Contract costs include all direct materials and labor costs related to contract performance. Since the revenue recognition of these contracts depends on estimates, which are assessed continually during the term of the contract, recognized revenues and profit are subject to revisions as the contract progresses to completion. The cumulative effects of revisions of estimated total contract costs and revenues, together with any contract reserves which may be deemed appropriate, are recorded in the period in which the facts and changes in circumstances become known. Due to uncertainties inherent in the estimation process, it is reasonably possible that these estimates will be revised in a different period.

The Company's contracts generally provide customers the right to liquidated damages ("LDs") against Energy Vault in the event specified milestones are not met on time, or certain performance metrics are not met upon or after the substantial completion date. LDs are accounted for as variable consideration, and the contract price is reduced by the expected penalty

or LD amount when recognizing revenue. Variable consideration is included in the transaction price only to the extent that it is improbable that a significant reversal in the amount of cumulative revenue recognized will occur when the uncertainty is resolved. Estimating variable consideration requires certain estimates and assumptions, including whether and by how much a project will be delayed. The existence and measurement of liquidated damages may also be impacted by the Company's judgment about the probability of favorable outcomes of customer disputes involving whether certain events qualify as force majeure or the reason for the events that caused project delays. Variable consideration for LDs is estimated using the expected value of the consideration to be received.

Intellectual Property Licensing: The Company enters into licensing agreements of its intellectual property that are within the scope of ASC 606. The terms of such licensing agreements include the license of functional intellectual property, given the functionality of the intellectual property is not expected to change substantially as a result of the licensor's ongoing activities. The transaction price allocated to the licensing of intellectual property is recognized as revenue at a point in time when the licensed intellectual property is made available for the customer's use and benefit.

The Company's agreement with Atlas includes variable consideration of $25.0 million, which represents a refundable contribution the Company made to Atlas during the construction period for their first GESS. The refundable contribution will be returned to Energy Vault upon Atlas' first GESS reaching substantial completion, subject to adjustment for potential liquidated damages if certain performance metrics are not met. The Company has determined that it is probable that the entire $25.0 million will be collected from Atlas, and therefore has included that amount in the contract's transaction price.

Certain licensing agreements contain a significant financing component due to the customer having extended payment terms. The licensing agreements that contain a significant financing component require the Company to recognize revenue as the present value of the future customer payments. The Company determines the present value of the future customer payments using a discounted cash flow analysis and a discount rate that approximates the interest rate the Company would use in a separate financing transaction with the customer. The discount rate used in the discounted cash flow analysis is highly subjective as it is dependent on the Company's assessment of the customer's credit risk.

Stock-Based Compensation

We have granted stock-based awards consisting primarily of incentive and non-qualified stock options and restricted stock units ("RSUs") to employees, members of our Board, and non-employees.

Accounting for stock-based compensation requires us to make a number of judgments, estimates, and assumptions. If any of the estimates prove to be inaccurate, Energy Vault's net loss and operating results could be affected adversely.

The Company's stock-based compensation arrangements are accounted for in accordance with ASC Topic 718, "Share Based Payments." Compensation expense is recognized over the requisite service period (usually the vesting period) on a straight-line basis and adjusted for actual forfeitures of unvested awards as they occur.

Stock options

Stock options that vest solely based on a service condition are measured based on the estimated fair values of the awards as of the grant date using the Black-Scholes option-pricing model, which was impacted by the following assumptions:

- Expected Term — The expected term represents the period that Energy Vault's awards granted are expected to be outstanding and is determined based upon the simplified method, as we do not have sufficient historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior.
- Expected Volatility — Since we were privately held and did not have any trading history for our common stock prior to the Merger, the expected volatility was estimated based on the average volatility for comparable publicly traded companies over a period equal to the expected term of the stock award grants.
- Risk-Free Interest Rate — We use the U.S. Treasury yield for our risk-free interest rate that corresponds with the expected term.
- Expected Dividend — Energy Vault has never paid dividends on its common stock and has no plans to pay dividends in the foreseeable future. Therefore, an expected dividend yield of zero was used.

RSUs

RSUs issued prior to the Merger were subject to both a service-based and a performance-based vesting condition. The performance-based vesting condition was satisfied upon the closing of the Merger. The qualifying liquidity event was not deemed probable until consummated, and therefore, stock-based compensation related to these RSUs remained unrecognized prior to the consummation of the Merger. The grant date fair value of our RSUs prior to the Merger was

determined using valuation methodologies which utilized certain assumptions, including probability weighting of events, volatility, time to liquidation, a risk-free interest rate, and an assumption for a discount for lack of marketability (Level 3 inputs). The fair value of the Company's common stock was estimated because the common stock of Legacy Energy Vault had not yet been publicly traded prior to the Merger.

Subsequent to the Merger date, issued RSUs generally vest based only on a service condition. The grant date fair value of RSUs issued subsequent to the Merger that vest solely based upon service conditions are based on the fair value of our underlying common stock as of the date of the grant.

The Company grants RSUs to its CEO that vest based upon a market condition. The market conditions will be satisfied upon the Company's stock price meeting certain price targets for 20 days out of any 30 day trading period. The fair value of these RSUs is measured using a Monte Carlo simulation model on the date of the grant. The Monte Carlo simulation model requires the input of highly subjective assumptions, including the expected term of the award, the expected volatility of the Company's common stock, risk-free interest rates, and the expected dividend yield of the Company.

Warrant Liability

Energy Vault's financial statements reflect the impact of the publicly-traded warrants ("Public Warrants") and private warrants ("Private Warrants") that were assumed upon the closing of the Merger. The Company accounts for warrants for shares of the Company's common stock that are not indexed to its own stock as liabilities at fair value on the balance sheet. The warrants are subject to remeasurement at each balance sheet date and any change in fair value is recognized in the Company's statement of operations. With the completion of the redemption of Energy Vault's public warrants on August 1, 2022, Energy Vault currently expects to incur incremental income (expense) in its consolidated statements of operations for the fair value change for outstanding warrant liabilities at the end of each reporting period only in respect of its private warrants.

The Private Warrants are classified as a Level 3 measurement and the Company uses a Black Scholes model to determine their fair value. The Black Scholes model requires the input of expected volatility, which is subjective. A significant increase in the expected volatility in isolation would result in a significantly higher fair value measurement.

Emerging Growth Company Accounting Election

We are an "emerging growth company" as defined in Section 2(a) of the Securities Act of 1933, as amended, and have irrevocably elected to take advantage of the benefits of this extended transition period for new or revised standard. We are expected to remain an emerging growth company through the end of 2023 and expect to continue to take advantage of the benefits of the extended transition period. 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 for emerging growth companies because of the potential differences in accounting standards used.

Recently Adopted and Issued Accounting Pronouncements

Recently issued and adopted/unadopted accounting pronouncements are described in Note 2 of the consolidated financial statements included elsewhere in this Annual Report.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market risk represents the risk of loss that may impact our financial position because of adverse changes in financial market prices and rates.

Foreign Currency Risk

Nearly all of our letters of intent are denominated in U.S. dollars, and certain of our definitive agreements could be denominated in currencies other than the U.S. dollar, including the Euro, the Australian dollar, the Brazilian real, and the Saudi riyal. A strengthening of the U.S. dollar could increase the cost of our solutions to our international customers, which could adversely affect our business and results of operations. In addition, an increasing portion of our operating expenses is incurred outside the United States, is denominated in foreign currencies, such as the euro and the Swiss franc, and is subject to fluctuations due to changes in foreign currency exchange rates. If we become more exposed to currency fluctuations and are not able to successfully hedge against the risks associated with currency fluctuations, our results of operations could be adversely affected.

Inflation Risk

Our operations could be adversely impacted by inflation, primarily from higher material, labor, and construction costs. While it is difficult to measure the impact of inflation for such estimates accurately, we believe, if our costs are affected

due to significant inflationary pressures, we may not be able to fully offset higher costs through price increases or other corrective measures, which may adversely affect our business, financial condition, and results of operations.

Credit Risk

Credit risk refers to the risk that a counterparty may default on its contractual obligations resulting in a loss to us. Our customers include the counterparties for the sale of our energy storage systems or the licensees of our intellectual property. A loss of one or more of our significant customers, their inability to perform under their contracts, or their default in payment could harm our business and negatively impact revenue, results of operations, and cash flows.

Commodity Price Risk

We are subject to risk from fluctuating market prices of certain commodity raw materials, including cement, steel, aluminum, and lithium, that are used in the components from suppliers that are inputs into our products. Prices of these raw materials may be affected by supply restrictions or other logistic costs market factors from time to time. As we are not the direct buyer of these raw materials, we do not enter into hedging arrangements to mitigate commodity risk. Significant price changes for these raw materials could reduce our operating margins if suppliers increase component prices and we are unable to recover such increases from our customers and could harm our business, financial condition, and results of operations.

Item 8. Financial Statements and Supplementary Data

Index of Consolidated Financial Statements for the fiscal years ended December 31, 2022 and 2021.

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Energy Vault Holdings, Inc.
Westlake Village, California 91361

Opinion on the consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Energy Vault Holdings, Inc (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the two years in the period ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BDO USA, LLP
We have served as the Company's auditor since 2020.

Melville, New York
April 12, 2023

ENERGY VAULT HOLDINGS, INC.

Consolidated Balance Sheets
(In thousands, except par value)

	December 31,	
	2022	2021
Assets		
Current Assets		
Cash and cash equivalents	$ 203,037	$ 105,125
Restricted cash	83,145	—
Accounts receivable	37,460	—
Contract assets	28,978	—
Customer financing receivable, current portion	1,500	—
Inventory	4,378	—
Prepaid expenses and other current assets	31,569	5,538
Total current assets	390,067	110,663
Property and equipment, net	3,044	11,868
Operating lease right-of-use assets	1,442	1,238
Customer financing receivable, long-term portion	8,260	—
Other assets	13,900	1,525
Total Assets	**$ 416,713**	**$ 125,294**
Liabilities, Convertible Preferred Stock, and Stockholders' Equity (Deficit)		
Current Liabilities		
Accounts payable	$ 60,315	$ 1,979
Accrued expenses	14,749	4,704
Contract liabilities, current portion	49,434	—
Finance leases, current portion	38	48
Operating leases, current portion	787	612
Total current liabilities	125,323	7,343
Deferred pension obligation	890	734
Asset retirement obligation	560	978
Contract liabilities, long-term portion	1,500	1,500
Long-term finance leases	16	34
Long-term operating leases	709	662
Warrant liability	2	—
Total liabilities	129,000	11,251
Commitments and contingencies (Note 18)		
Convertible preferred stock, $0.0001 par value; no shares authorized, none issued and outstanding at December 31, 2022; 85,741 shares authorized, 85,741 issued and outstanding at December 31, 2021; liquidation preference of $171,348	—	182,709
Stockholders' Equity (Deficit)		
Preferred stock, $0.0001 par value; 5,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.0001 par value; 500,000 shares authorized, 138,530 issued and outstanding at December 31, 2022; 120,568 shares authorized, 20,432 issued and outstanding at December 31, 2021	14	—
Additional paid-in capital	435,852	713
Accumulated deficit	(147,265)	(68,966)
Accumulated other comprehensive loss	(888)	(413)
Total stockholders' equity (deficit)	287,713	(68,666)
Total Liabilities, Convertible Preferred Stock, and Stockholders' Equity (Deficit)	**$ 416,713**	**$ 125,294**

The accompanying notes are an integral part of these consolidated financial statements.

ENERGY VAULT HOLDINGS, INC.

Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except per share data)

	Year Ended December 31,	
	2022	2021
Revenue	$ 145,877	$ —
Operating expenses:		
Cost of revenue	86,580	—
Sales and marketing	12,582	845
Research and development	50,058	7,912
General and administrative	56,912	18,056
Asset impairment	2,828	2,724
Loss from operations	(63,083)	(29,537)
Other income (expense)		
Interest expense	(2)	(7)
Change in fair value of warrant liability	2,330	—
Transaction costs	(20,586)	—
Other income (expense), net	3,469	(1,793)
Loss before income taxes	(77,872)	(31,337)
Provision for income taxes	427	1
Net loss	$ (78,299)	$ (31,338)
Net loss per share — basic and diluted	$ (0.64)	$ (2.45)
Weighted average shares outstanding — basic and diluted	123,241	12,780
Other comprehensive income (loss) — net of tax		
Actuarial gain (loss) on pension	$ (188)	$ 166
Foreign currency translation gain (loss)	(287)	1,519
Total other comprehensive income (loss)	(475)	1,685
Total comprehensive loss	$ (78,774)	$ (29,653)

The accompanying notes are an integral part of these consolidated financial statements.

ENERGY VAULT HOLDINGS, INC.

Consolidated Statements of Convertible Preferred Stock and Stockholders’ Equity (Deficit)
(In thousands)

	Convertible Preferred Stock		Common Stock				Accumulated Other	Total Stockholders’
	Shares [1]	Amount	Shares [1]	Amount	Additional Paid-In Capital	Accumulated Deficit	Comprehensive Income (Loss)	Equity (Deficit)
Balance at December 31, 2020	**63,805**	**$ 62,042**	**14,404**	**$ —**	**$ 99**	**$ (37,628)**	**$ (2,098)**	**$ (39,627)**
Issuance of B-1 preferred stock for cash	7,153	15,320	—	—	—	—		—
Series B-1 preferred stock issuance costs	—	(25)	—	—	—	—		—
Issuance of Series C preferred stock for cash	14,783	107,000	—	—	—	—		—
Series C preferred stock issuance costs	—	(1,628)	—	—	—	—		—
Exercise of stock options	—	—	373	—	10	—		10
Stock based compensation	—	—	5,655	—	604	—		604
Net loss	—	—	—	—	—	(31,338)		(31,338)
Actuarial gain on pension	—	—	—	—	—	—	166	166
Foreign currency translation gain	—	—	—	—	—	—	1,519	1,519
Balance at December 31, 2021	**85,741**	**$ 182,709**	**20,432**	**$ —**	**$ 713**	**$ (68,966)**	**$ (413)**	**$ (68,666)**
Conversion of convertible preferred stock into common stock in connection with reverse recapitalization	(85,741)	(182,709)	85,741	9	182,700	—	—	182,709
Issuance of common stock upon the reverse recapitalization, net of transaction costs	—	—	27,553	3	191,856	—	—	191,859
Exercise of stock options	—	—	196	1	170	—	—	171
Exercise of warrants	—	—	2,873	—	25,360	—	—	25,360
Stock based compensation	—	—	—	—	41,058	—	—	41,058
Vesting of RSUs, net of shares withheld for payroll taxes	—	—	1,735	1	(6,005)	—	—	(6,004)
Net loss	—	—	—	—	—	(78,299)	—	(78,299)
Actuarial loss on pension	—	—	—	—	—	—	(188)	(188)
Foreign currency translation loss	—	—	—	—	—	—	(287)	(287)
Balance at December 31, 2022	**—**	**$ —**	**138,530**	**$ 14**	**$ 435,852**	**$ (147,265)**	**$ (888)**	**$ 287,713**

[1] The number of shares of convertible preferred stock and common stock prior to the Merger (defined in Note 1) have been retroactively restated to reflect the exchange ratio of 6.7735 established in the Merger as described in Note 1 and Note 3.

The accompanying notes are an integral part of these consolidated financial statements.

ENERGY VAULT HOLDINGS, INC.

Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,	
	2022	2021
Cash Flows From Operating Activities		
Net loss	$ (78,299)	$ (31,338)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	7,743	2,320
Non-cash operating lease expense	744	117
Non-cash interest income	(365)	—
Stock based compensation	41,058	500
Asset impairment	2,828	3,225
Gain on change in fair value of warrant liability	(2,330)	—
Change in pension obligation	(12)	92
Change in asset retirement obligation	(392)	(52)
Foreign exchange gains and losses	316	64
Changes in operating assets and liabilities:		
Accounts receivable	(37,460)	—
Contract assets	(28,978)	—
Prepaid expenses and other current assets	(29,613)	217
Inventory	(4,378)	(213)
Customer financing receivable	(9,725)	—
Other assets	(1,052)	—
Accounts payable and accrued expenses	67,861	3,002
Contract liabilities	49,434	—
Operating lease liabilities	(726)	—
Net cash used in operating activities	(23,346)	(22,066)
Cash Flows From Investing Activities		
Purchase of property and equipment	(2,319)	(170)
Purchase of convertible notes	(2,000)	(1,000)
Purchase of equity securities	(9,000)	—
Net cash used in investing activities	(13,319)	(1,170)
Cash Flows From Financing Activities		
Proceeds from exercise of stock options	171	5
Proceeds from reverse recapitalization and PIPE financing, net	235,940	—
Proceeds from exercise of warrants	7,855	—
Payment of transaction costs related to reverse recapitalization	(20,651)	(3,592)
Payment of taxes related to net settlement of equity awards	(5,482)	—
Repayment of debt	—	(765)
Payment of finance lease obligations	(62)	(53)
Proceeds from Series B-1 preferred stock, net of issuance costs	—	15,295
Proceeds from Series C preferred stock, net of issuance costs	—	105,373
Proceeds from issue of shares, net of issuance costs	—	116
Net cash provided by financing activities	217,771	116,379
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(49)	1,931
Net increase in cash, cash equivalents, and restricted cash	181,057	95,074
Cash, cash equivalents, and restricted cash – beginning of the period	105,125	10,051
Cash, cash equivalents, and restricted cash – end of the period	286,182	105,125
Less: Restricted cash at end of period	83,145	—
Cash and cash equivalents - end of period	$ 203,037	$ 105,125

ENERGY VAULT HOLDINGS, INC.

Consolidated Statements of Cash Flows (Continued)
(In thousands)

	Year Ended December 31,	
	2022	**2021**
Supplemental Disclosures of Cash Flow Information:		
Income taxes paid	3	1
Cash paid for interest	2	70
Supplemental Disclosures of Non-Cash Investing and Financing Information:		
Conversion of redeemable preferred stock into common stock in connection with the reverse recapitalization	182,709	—
Warrants assumed as part of reverse recapitalization	19,838	—
Actuarial gain (loss) on pension	(188)	166
Property, plant and equipment financed through accounts payable	—	39
Assets acquired on finance lease	37	44
Reclassification of inventory costs to property and equipment, net	—	11,156
Merger related costs in accounts payable	—	529

The accompanying notes are an integral part of these consolidated financial statements.

ENERGY VAULT HOLDINGS, INC.

Notes to Consolidated Financial Statements

NOTE 1. ORGANIZATION AND DESCRIPTION OF BUSINESS

Energy Vault Holdings, Inc., which together with its subsidiaries is referred to herein as “Energy Vault” or the “Company”, is a grid-scale energy storage company that is driving a faster transition to renewable power by solving the intermittence issues that are inherent to the most prevalent sources of renewable energy, solar and wind. The Company’s mission is to provide energy storage solutions to accelerate the global transition to renewable energy.

The Company’s project delivery generally relies on third-party EPC firms to construct our storage systems, under our supervision with dedicated teams tasked with project management. Our current business model options include:

- Building, operating, and transferring energy storage projects to potential customers,
- Building, operating, and holding energy storage systems as equity (co-) sponsor that may provide recurring revenue in the future,
- Recurring software revenue through licensing software for asset management and use case applications,
- Recurring service revenue through long term service agreements, and
- Intellectual property licenses and royalties associated with our energy storage technologies that may provide recurring revenues in the future.

The Company’s subsidiary, Energy Vault SA, was formed in December 2017 in Lugano Switzerland to the CDU, and serves as the Company’s research and development hub, and operates as the Company’s international headquarters.

Energy Vault was originally incorporated under the name Novus Capital Corporation II as a special purpose acquisition company in the state of Delaware in September 2020 with the purpose of effecting a merger with one or more operating businesses. On September 8, 2021, Novus announced that it had entered into the Merger Agreement with Legacy Energy Vault that would result in the Merger. Upon the closing of the Merger on February 11, 2022 (the “Closing”), Novus was immediately renamed to “Energy Vault Holdings, Inc.” The Merger between Novus and Legacy Energy Vault was accounted for as a reverse recapitalization. See Note 3 - *Reverse Capitalization* for more information. Energy Vault Holdings, Inc. is headquartered in Los Angeles, California.

Throughout the notes to the consolidated financial statements, unless otherwise noted, the “Company,” “we,” “us,” or “our” and similar terms refer to Legacy Energy Vault and its subsidiaries prior to the consummation of the Merger, and Energy Vault and its subsidiaries after the consummation of the Merger.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying consolidated financial statements have been prepared on an accrual basis of accounting in accordance with GAAP and applicable rules and regulations of the SEC regarding financial reporting.

Principles of Consolidation

These consolidated financial statements include Energy Vault Holdings, Inc. and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

If the Company has a variable interest in an entity, an assessment is performed to determine if that entity is a variable interest entity (“VIE”), and if so, if the Company is the primary beneficiary of the VIE. The assessment of whether an entity is a VIE requires an evaluation of qualitative factors and, where applicable, quantitative factors. These factors include: (i) determining whether the entity has sufficient equity at risk, (ii) evaluating whether the equity holders, as a group, lack the ability to make decisions that significantly affect the economic performance of the entity, and (iii) determining whether the entity is structured with disproportionate voting rights in relation to their equity interests. The Company has determined that it is not the primary beneficiary of any VIEs in which it has a variable interest.

Emerging Growth Company

Section 102(b)(1) of the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”) exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that

is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Exchange Act) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that an emerging growth company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such election to opt out is irrevocable. The Company has elected not to opt out of such extended transition period, which means that when a standard is issued or revised, and it has different application dates for public or private companies, the Company, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard.

This may make comparison of the Company's consolidated financial statement with another public company that is neither an emerging growth company nor an emerging growth company that has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

Use of Estimates

The preparation of the consolidated financial statements, in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. The Company evaluates its assumptions on an ongoing basis. The Company's management believes that the estimates, judgment, and assumptions used are reasonable based upon information available at the time they are made. Significant estimates made by management include, among others, revenue recognition, stock-based compensation, and valuation of warrant liability. Due to the inherent uncertainty involved in making assumptions and estimates, changes in circumstances could result in actual results differing from those estimates, and such differences could be material to the Company's consolidated financial condition and results of operations.

Segment Reporting

The Company reports its operating results and financial information in one operating and reportable segment. Our chief operating decision maker, which is our chief executive officer, reviews our operating results on a consolidated basis and uses that consolidated financial information to make operating decisions, assess financial performance, and allocate resources.

Concentration of Credit Risk

Financial instruments that subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, restricted cash, accounts receivable, and customer financings receivable.

Risks associated with cash and cash equivalents and restricted cash are mitigated by banking with creditworthy institutions. Such balances with any one institution may, at times, be in excess of federally insured amounts.

As of December 31, 2022, two customers had trade receivable balances exceeding 10% of total accounts receivable. These customers accounted for 78% and 16% of total accounts receivable, respectively.

As of December 31, 2022, one customer accounted for 100% of the customer financing receivable.

For the year ended December 31, 2022, revenue from two different customers accounted for 57% and 35% of total revenue, respectively.

Foreign Currency

Assets and liabilities denominated in a foreign currency are translated into U.S dollars using the exchange rates in effect at the balance sheet date. Revenue and expense accounts are translated at the average exchange rates during the periods. The impact of exchange rate fluctuations from translation of assets and liabilities is included in accumulated other comprehensive loss, a component of stockholders' equity (deficit). As of December 31, 2022, accumulated other comprehensive loss included a $0.2 million loss related to currency translation adjustments. As of December 31, 2021, accumulated other comprehensive loss included a $44 thousand gain related to currency translation adjustments.

Gains and losses resulting from foreign currency transactions are included in other income (expense), net in the accompanying consolidated statements of operations.

Fair Value Measurements

ASC 820, *Fair Value Measurement* ("ASC 820"), establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable inputs). 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 the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value as follows:

Level I — Inputs which include quoted prices in active markets for identical assets and liabilities.

Level II — Inputs other than Level I that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices 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 III — Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Revenue Recognition

The Company recognizes revenue from contracts with customers in accordance with ASC 606, *Revenue from Contracts with Customers* ("ASC 606"). Under ASC 606, revenue is recognized when, or as, control of promised goods and services is transferred to customers, and the amount of revenue recognized reflects the consideration to which the Company expects to be entitled in exchange for the goods and services transferred. The Company determines revenue recognition through the following steps:

(1) Identification of the contract, or contracts, with a customer.

(2) Identification of the performance obligations in the contract.

(3) Determination of the transaction price.

(4) Allocation of the transaction price to the performance obligations in the contract.

(5) Recognition of revenue when, or as, a performance obligation is satisfied.

Once a contract is determined to be within the scope of ASC 606, the Company assesses the goods or services promised within each contract and determines those that are performance obligations. Arrangements that include rights to additional goods or services that are exercisable at a customer's discretion are generally considered options. The Company assesses if these options provide a material right to the customer and if so, they are considered performance obligations. The identification of material rights requires judgments related to the determination of the value of the underlying good or service relative to the option exercise price.

The Company assesses whether each promised good or service is distinct for the purposes of identifying performance obligations in the contract. This assessment involves subjective determination and requires management to make judgments about the individual promised goods or services and whether such are separable from the other aspects of the contractual relationship. Promised goods and services are considered to be distinct provided that: (i) the customer can benefit from the good or service either on its own or together with the other resources that are readily available to the customer (that is, the good or service is capable of being distinct) and (ii) the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract (that is, the promise to transfer the good or service is distinct within the context of the contract). The Company also considers the intended benefit of the contract in assessing whether a promised good or service is separately identifiable from other promises in the contract. If a promised good or service is not distinct, an entity is required to combine that good or service with other promised goods or services until it identifies a bundle of goods or services that is distinct.

The transaction price is determined and allocated to the identified performance obligations in proportion to their stand-alone selling prices ("SSP") on a relative SSP basis. SSP is determined at contract inception and is not updated to reflect

changes between contract inception and when the performance obligations are satisfied. Determining the SSP for performance obligations requires significant judgment. In developing the SSP for a performance obligation, the Company considers applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs.

In determining the transaction price, the Company adjusts consideration for the effects of the time value of money if the timing of payments provides the Company with a significant benefit of financing. When a contract provides the customer with a significant benefit of financing, the Company recognizes a customer financing receivable and recognizes interest income separate from the revenue recognized on the contracts with customers. The Company does not assess whether a contract has a significant financing component if the expectation at contract inception is such that the period between payment and the transfer of the promised goods or services will be one year or less.

The Company recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) each performance obligation is satisfied, either at a point in time or over time. Over time revenue recognition is based on the use of an output or input method.

Build and Transfer Energy Storage Projects: The Company enters into contracts with utility companies and independent power producers to build and transfer energy storage projects. The Company has entered into contracts to build and transfer battery-based energy storage projects and intends to enter into contracts to build and transfer gravity-based energy storage projects in the future. Each storage project is customized depending on the customer's energy needs. Customer payments are due upon meeting certain milestones that are consistent with contract-specific phases of a project. The Company determines the transaction price based on the consideration expected to be received, which includes estimates of liquidated damages or other variable consideration. Generally, each contract to design and construct an energy storage project contains one performance obligation. Multiple contracts entered into with the same customer and near the same time to construct energy storage projects are combined in accordance with ASC 606. In these situations, the contract prices are aggregated and then allocated to each energy storage project based upon their relative stand-alone selling price.

The Company recognizes revenue over time as a result of the continuous transfer of control of its products to the customer. The continuous transfer of control to the customer is supported by clauses in the contracts that provide enforceable rights to payment of the transaction price associated with work performed to date for products that do not have an alternative use to the Company and/or the project is built on the customer's land that is under the customer's control.

Revenue for these performance obligations is recognized using the percentage of completion method based on cost incurred as a percentage of total estimated contract costs. Contract costs include all direct materials and labor costs related to contract performance. Pre-contract costs with no future benefit are expensed in the period in which they are incurred. Since the revenue recognition of these contracts depends on estimates, which are assessed continually during the term of the contract, recognized revenues and profit are subject to revisions as the contract progresses to completion. The cumulative effects of revisions of estimated total contract costs and revenues, together with any contract reserves which may be deemed appropriate, are recorded in the period in which the facts and changes in circumstances become known. Due to uncertainties inherent in the estimation process, it is reasonably possible that these estimates will be revised in a different period. When a loss is forecasted for a contract, the full amount of the anticipated loss is recognized in the period in which it is determined that a loss will incur.

The Company's contracts generally provide customers the right to liquidated damages ("LDs") against Energy Vault in the event specified milestones are not met on time, or certain performance metrics are not met upon or after the substantial completion date. LDs are accounted for as variable consideration, and the contract price is reduced by the expected penalty or LD amount when recognizing revenue. Variable consideration is included in the transaction price only to the extent that it is improbable that a significant reversal in the amount of cumulative revenue recognized will occur when the uncertainty is resolved. Estimating variable consideration requires certain estimates and assumptions, including whether and by how much a project will be delayed. The existence and measurement of liquidated damages may also be impacted by the Company's judgment about the probability of favorable outcomes of customer disputes involving whether certain events qualify as force majeure or the reason for the events that caused project delays. Variable consideration for LDs is estimated using the expected value of the consideration to be received. If Energy Vault has a claim against the customer for an amount not specified in the contract, such claim is recognized as an increase to the contract price when it is legally enforceable, which is usually upon signing a respective change order or equivalent document confirming the claim acceptance by the customer.

The Company offers limited warranties on the Company's energy storage systems which provide the customer assurance that the energy storage systems will function as the parties intended because it complies with agreed-upon specifications and are free from defects. These assurance-type warranties are not treated as a separate revenue performance obligation and are accounted for as guarantees under GAAP.

Operate Energy Storage Projects: To date, the Company has not recognized any revenue related to providing operation services for its energy storage projects. The method of revenue recognition will be determined once the Company finalizes agreements with its future customers.

Energy Management Software as a Service and Long Term Service Arrangements: To date, the Company has not recognized any revenue related to providing energy management software as a service or related to long term service arrangements. The method of revenue recognition will be determined once the Company finalizes agreements with its future customers.

Intellectual Property Licensing: The Company enters into licensing agreements of its intellectual property that are within the scope of ASC 606. The terms of such licensing agreements include the license of functional intellectual property, given the functionality of the intellectual property is not expected to change substantially as a result of the licensor's ongoing activities. The transaction price allocated to the licensing of intellectual property is recognized as revenue at a point in time when the licensed intellectual property is made available for the customer's use and benefit. Certain licensing agreements contain a significant financing component due to the customer having extended payment terms. The amounts due from customers under extended payment terms are included in the line item, customer financing receivable, on the consolidated balance sheets.

One of the Company's intellectual property licensing customers is Atlas, which was an investor in the Company's PIPE. As part of the Company's licensing agreement with Atlas, the Company agreed to provide Atlas with a final update to its functional intellectual property upon the completion of the Company's research and development activities related to the intellectual property that was previously provided to Atlas. The Company identified the obligation to provide this update to Atlas as a performance obligation and deferred $5.9 million of the transaction price related to this performance obligation during the first quarter of 2022. This deferred amount was recognized as revenue during the fourth quarter of 2022 upon the Company transferring the technology update to Atlas.

The contract with Atlas includes variable consideration of $25.0 million due to the Company's commitment to provide a $25.0 million refundable contribution to Atlas during the construction period of Atlas' first project. The Company has considered this to be variable consideration as the Company will be repaid when Atlas' first project reaches substantial completion, subject to adjustment for potential liquidated damages if certain performance metrics are not met. The Company has determined that it is probable that Atlas will reach substantial completion and meet the performance metrics to repay Energy Vault, therefore the entire amount of variable consideration has been included in the transaction price. As of December 31, 2022, the Company has contributed all $25.0 million to Atlas. The $25.0 million refundable contribution is included in the line item, contract assets, on the consolidated balance sheets.

Royalty Revenue: In connection with entering into intellectual property licensing agreements, the Company also enters into royalty agreements whereby the customer agrees to pay the Company a percentage of the customer's future sales revenue that is generated by using the Company's intellectual property. The Company has not recognized any royalty revenue to date, but will recognize royalty revenue at the point in time when the customer's sales occur.

Other Revenue: In connection with entering into the intellectual property licensing agreement with Atlas, the Company agreed to provide construction support services to Atlas during the periods in which they construct energy storage projects. Energy Vault is reimbursed by Atlas at the Company's cost to provide these services. Because the construction support services were considered to be an option that provided a material right for the customer to obtain services from the Company, this obligation was considered to be a performance obligation and required an allocation of the transaction price. The transaction price allocated to construction support services and deferred at the inception of the contract was $1.2 million. This amount is recognized as revenue over time using the cost-to-cost measure of progress as that method offers the best depiction of the continuous transfer of services to the customer.

Cash, Cash Equivalents, and Restricted Cash

The Company considers all highly liquid investments purchased with an original or remaining maturity of three months or less to be cash equivalents. At December 31, 2022 and 2021, the Company maintained money market accounts totaling $5.4 million and $5.3 million respectively; and a cash sweep account invested primarily in US Treasury and other short term securities totaling $66.5 million and $84.2 million, respectively.

Restricted cash as of December 31, 2022 primarily consisted of cash held by banks as collateral for the Company's letters of credit.

Accounts Receivable

Accounts receivable represents amounts that have an unconditional right to consideration, have been billed to customers, and do not bear interest. Receivables are carried at amortized cost. The Company periodically assesses collectability of its receivables from each customer and records an allowance for doubtful accounts for the estimated uncollectible amount when deemed appropriate. If circumstances related to specific customers change, the Company's estimates of the recoverability of receivables could be adjusted. Accounts are written off after all means of collection, including legal action, have been exhausted. As of both December 31, 2022 and December 31, 2021, no allowance for doubtful accounts has been recorded.

Customer Financing Receivable

Customer financing receivable includes amounts due from a customer related to a licensing agreement under extended payment terms which contains a significant financing component. An interest rate is not stated in this agreement and is imputed using the effective interest method when recognizing interest income. The imputed interest rate on the note is 8.9%. Interest income on the customer financing receivable was $35 thousand for the year ended December 31, 2022 and was recognized within the line item, other income (expense), net in the consolidated statements of operations. As of December 31, 2022, no allowance for doubtful accounts has been recorded for customer financing receivable.

Inventory

Inventory consists of inverters and spare parts, which are used in ongoing battery storage projects for sale. Inventory is stated at the lower of cost or net realizable value with cost being determined by the specific identification method. Costs include the cost of purchase and other costs incurred in bringing the inventories to their present location and condition. The Company periodically reviews its inventory for potential obsolescence and write down of its inventory, as appropriate, to net realizable value based on its assessment of market conditions.

Property and Equipment, Net

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets. Maintenance and repairs are charged to expense as incurred. When assets are retired or sold, the cost and related accumulated depreciation are removed from the consolidated balance sheet and any resulting gain or loss is reflected in operating expenses in the period realized.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, primarily comprised of property and equipment and operating right-of-use assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability is measured by comparison of the carrying amount to the future undiscounted net cash flows which the assets are expected to generate. If the carrying value of the assets exceeds the sum of the estimated future cash flows, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceed their fair value.

Investment in Equity Securities

During 2022, the Company made a strategic investment and purchased equity securities of a private company active in the energy transition industry. These equity securities do not have a readily determinable fair value and are recorded at cost, less any impairment, plus or minus adjustments related to observable transactions for the same or similar securities, with unrealized gains and losses included in earnings. As of December 31, 2022, both the cost basis and carrying value of these equity securities was $9.0 million. The Company did not recognize any impairments or value changes resulting from observable price changes during the year ended December 31, 2022. The carrying value of the Company's investment in equity securities is included in the line item, other assets, in the consolidated balance sheets.

Leases

The Company determines if a contract contains a lease at its inception based on whether or not the Company has the right to control the asset during the contract period and other facts and circumstances. Right-of-use ("ROU") assets represent the Company's 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.

ROU assets are classified as either operating or finance leases. Upon commencement of the lease, a ROU asset and corresponding lease liability are recognized for all operating and finance leases. The Company has elected the short-term lease exemption, which does not require a ROU asset or lease liability to be recognized when the lease term is 12 months or less and does not include an option to purchase the underlying asset that the lessee is reasonably certain to exercise. The Company has decided not to elect the policy to not separate lease and non-lease component in arrangements whereby the Company is the lessee.

Upon commencement of the lease, ROU assets are recognized based on the initial measurement of the lease liability and adjusted for any lease payments made before commencement date of the lease, less any lease incentives and including any initial direct costs incurred. Lease liabilities are initially measured at the present value of future minimum lease payments over the lease term.

The discount rate used to determine the present value is the rate implicit in the lease unless that rate cannot be determined, in which case Company's incremental borrowing rate is used, which is based on the estimated interest rate for collateralized borrowing over a similar term of the lease at commencement date.

Rights to extend or terminate a lease are included in the lease term when there is reasonable certainty the right will be exercised. Factors used to assess reasonable certainty of rights to extend or terminate a lease include current and forecasted lease improvement plans, anticipated changes in development strategies, historical practice in extending similar contracts and current market conditions.

Operating lease ROU assets and liabilities are subsequently measured at the present value of the lease payments not yet paid and discounted at the initial discount rate at commencement of the lease, less any impairments to the ROU asset. Operating lease expense is recognized on a straight-line basis over the lease term. Finance lease ROU assets are amortized on a straight-line basis over the estimated useful life of the asset if the lessee is reasonably certain to exercise a purchase option or ownership of the leased asset transfers at the end of the lease term, otherwise the leased assets are amortized over the lease term. Amortization of finance lease ROU assets is included in depreciation and amortization.

Operating lease ROU assets are recognized on the consolidated balance sheets in the line item, operating lease right-of-use assets, and finance lease ROU assets are recognized on the consolidated balance sheets within the line item, property and equipment, net.

Asset Retirement Obligation

Asset retirement obligations (AROs) are legal obligations associated with the retirement of tangible long-lived assets resulting from acquisition, construction, development, and/or normal use of the underlying assets. The ARO is recognized at its estimated fair value in the period in which it is incurred. These obligations generally include the estimated net future costs of dismantling the assets and restoring the land the assets are located on to its original condition in accordance with legal regulations and land lease agreement requirements. Upon initial recognition of a liability, the associated asset retirement costs are capitalized as part of the related long-lived asset and depreciated over the estimated useful life of the related asset. The liability is accreted over time through charges to earnings. If an ARO is settled for an amount other than

the carrying amount of the liability, the Company recognizes a gain or loss on the settlement. The Company reviews its AROs on an ongoing basis.

Defined Benefit Pension Obligation

The Company's wholly owned subsidiary in Switzerland has a defined benefit pension obligation covering retirement and other long-term benefits of the local employees. Accrued pension costs are developed using actuarial principles and assumptions which consider a number of factors, including estimates for the discount rate, expected long-term rate of return on assets and mortality. Changes in these estimates would impact the amounts that the Company records in the consolidated financial statements.

Warrants

The Company assumed Public Warrants and Private Warrants upon the Closing. The Company accounts for warrants for shares of the Company's common stock that are not indexed to its own stock as liabilities at fair value on the consolidated balance sheets. The warrants are subject to remeasurement at each balance sheet date and any change in fair value is recognized in the Company's consolidated statements of operations. For issued or modified warrants that meet all of the criteria for equity classification, the warrants are required to be recorded as a component of additional paid-in-capital at the time of issuance. For issued or modified warrants that do not meet all the criteria for equity classification, the warrants are required to be recorded as a liability at their initial fair value on the date of issuance, and each balance sheet date thereafter. Changes in the estimated fair value of the warrants are recognized as a non-cash gain or loss in the consolidated statements of operations.

Earn-Out Shares

In connection with the reverse recapitalization and pursuant to the Merger Agreement, eligible Legacy Energy Vault stockholders immediately prior to the Closing, have the contingent right to receive an aggregate of 9.0 million shares of the Company's common stock ("Earn-Out Shares") upon the Company achieving each Earn-Out Triggering Event (defined below) during the period beginning on the 90th day following the Closing and ending on the third anniversary of such date. An "Earn-Out Triggering Event" means the date on which the closing price of the Company's common stock quoted on the NYSE is greater than or equal to certain specified prices for any 20 trading days within a 30 consecutive day trading period.

The Earn-Out Shares were recognized at fair value upon the Closing of the Merger and classified in shareholders' equity. Because the Merger was accounted for as a reverse recapitalization, the issuance of the Earn-Out Shares was treated as a deemed dividend and since the Company does not have retained earnings, the issuance was recorded within additional-paid-in capital ("APIC") and has a net nil impact on APIC.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development costs consist of salaries and other personnel related expenses, engineering expenses, product development costs and facility costs.

Advertising Costs

Advertising costs are expensed as incurred and are reflected in the line item, sales and marketing, in the consolidated statements of operations. Advertising expenses were $0.3 million for the year ended December 31, 2022. The Company did not incur any advertising expenses during the year ended December 31, 2021.

Stock-Based Compensation

The Company issues stock-based compensation awards to employees, directors, and non-employees in the form of stock options and restricted stock units ("RSUs"). The Company measures and recognizes compensation expense for stock-based awards based on the award's fair value on the date of the grant. The Company accounts for forfeitures of stock-based awards when they occur. The fair value of RSUs that vest based on service conditions is measured using the fair value of the Company's common stock on the date of the grant. The fair value of RSUs that vest based on market conditions is measured using a Monte Carlo simulation model on the date of the grant. The fair value of stock options that vest based on service conditions is measured using the Black-Scholes option pricing model on the date of the grant. The Monte Carlo simulation model and the Black-Scholes option pricing model require the input of highly subjective assumptions, including

the fair value of the Company's common stock, the expected term of the award, the expected volatility of the Company's common stock, risk-free interest rates, and the expected dividend yield of the Company's common stock. This assumption used to determine the fair value of the awards represent management's best estimates. These estimates involve inherit uncertainties and the application of management's judgment.

The fair value of awards are recognized on a straight-line basis over the requisite service period. The fair value of the market-based RSUs is recognized over the requisite service period regardless of whether or not the RSUs ultimately vest and convert to common stock.

Transaction Costs

Transaction costs consist of direct legal, accounting, and other fees related to the consummation of the Merger. These costs were initially capitalized as incurred in prepaid assets and other current assets in the consolidated balance sheet. Upon the Closing, transaction costs related to the issuance of shares were recognized in stockholders' deficit while costs associated with the public and private warrants liabilities were expensed in the consolidated statements of operations and comprehensive loss. As of December 31, 2021, $4.1 million of deferred Merger transaction costs were included within prepaid and other current assets in the consolidated balance sheet. The Company and Novus incurred in aggregate $44.8 million in transaction costs, consisting of underwriting, legal, and other professional fees, of which $24.2 million was recorded to additional paid-in-capital as a reduction of proceeds and the remaining $20.6 million was expensed immediately upon the Closing.

Income Taxes

The Company accounts for income taxes in accordance with ASC 740, *Income Taxes* ("ASC 740"). ASC 740 prescribes the use of the liability method, whereby deferred tax asset and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates that will be in effect when the differences are expected to reverse.

Deferred income tax balances reflect the effects of temporary differences between the carrying amounts of assets and liabilities and their tax bases and are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered. Deferred tax assets are evaluated for future realization and reduced by a valuation allowance to the extent the Company believes they will not be realized.

Net Loss Per Share

Basic net loss per share of common stock is calculated by dividing net loss by the weighted average number of common shares outstanding for the applicable period. Diluted net loss is computed based on the weighted average number of common shares outstanding increased by the number of additional shares that would have been outstanding had the potentially dilutive common shares been issued, including any dilutive effect from convertible preferred stock, outstanding stock options, or unvested RSUs, and reduced by the number of shares the Company could have repurchased with the proceeds from the issuance of the potentially dilutive shares. Potentially dilutive instruments are excluded from the per share calculation because the Company is in a net loss position and they would therefore be anti-dilutive.

Prior to 2022, the Company followed the two-class method when computing net loss per share for periods when issued shares that meet the definition of participating securities are outstanding. The two-class method calls for the calculation of net loss per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common stockholders to be allocated between common and participating securities based upon their respective rights to received dividends as if all income for the period had been distributed. Net losses are not allocated to the Company's preferred stockholders as they do not have an obligation to share in the Company's net losses. The two-class method is no longer applicable after the closing of the Merger.

Recent Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. ASU 2016-13 amends the impairment model to utilize an expected loss methodology in place of the currently used incurred loss methodology, which will result in the more timely recognition of losses. The new accounting standard will be effective for the fiscal year beginning on January 1, 2023 and will be adopted using the

modified retrospective method, which requires a cumulative effect adjustment to retained earnings. The Company is currently evaluating the impact this ASU will have on its consolidated financial statements and expects the adoption of the ASU will reduce opening retained earnings by approximately $2.4 million (pre-tax), driven by the Company's accounts receivables, contract assets, and long-term financing receivable.

In August 2020, FASB issued ASU No. 2020-06, *Debt — Debt with Conversion and Other Options (Subtopic 470-20)* and *Derivatives and Hedging — in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity ("ASU 2020-06")*. ASU 2020-06 simplifies the accounting for convertible instruments. In addition to eliminating certain accounting models, this ASU includes improvements to the disclosures for convertible instruments and earnings-per-share (EPS) guidance and amends the guidance for the derivatives scope exception for contracts in an entity's own equity. ASU 2020-06 is effective for fiscal years beginning after December 15, 2021. The Company adopted ASU 2020-06 on January 1, 2022 and it did not have an impact on the Company's consolidated financial statements.

In December 2020, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12")*, which simplifies the accounting for income taxes. ASU 2019-12 is effective for nonpublic entities for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. The Company adopted ASU 2019-12 on January 1, 2022 and it did not have an impact on the Company's consolidated financial statements.

NOTE 3. REVERSE RECAPITALIZATION

On February 11, 2022, in connection with the Merger, the Company raised gross proceeds of $235.9 million, including the contribution of $40.9 million of cash, net of redemptions, held in Novus' trust account from its initial public offering and an aggregate purchase price of $195.0 million from the sale and issuance of common shares in a PIPE at $10.00 per share. The Company and Novus incurred in aggregate approximately $44.8 million in transaction costs, consisting of underwriting, legal, and other professional fees, of which $24.2 million was recorded to additional paid-in-capital as a reduction of proceeds and the remaining $20.6 million was expensed immediately upon the Closing. The aggregate consideration paid to Legacy Energy Vault stockholders in connection with the Merger (excluding any potential Earn-Out Shares), was 106.2 million shares of the Company's common stock, par value $0.0001 after giving effect to the exchange ratio of 6.7735 (the "Exchange Ratio"). The total net cash proceeds to the Company were $191.1 million.

The following transactions were completed as part of the Merger:

- All of the issued and outstanding shares of Legacy Energy Vault convertible preferred stock were canceled and converted into a total of 85.7 million shares of Energy Vault common stock;
- Each issued and outstanding share of Legacy Energy Vault common stock was canceled and converted into a total of 20.4 million shares of Energy Vault common stock;
- Each outstanding vested and unvested Legacy Energy Vault common stock option was converted into options exercisable for shares of Energy Vault common stock with the same terms except for the number of shares exercisable and the exercise price, each of which was adjusted by the Exchange Ratio;
- Each outstanding and unvested Legacy Energy Vault restricted stock unit ("RSU") was converted into RSUs for shares of Energy Vault common stock with the same terms except for the number of shares, each of which was adjusted by the Exchange Ratio; and
- Each outstanding vested and unvested Legacy Energy Vault restricted stock award ("RSA") was converted into RSAs for shares of Energy Vault common stock with the same terms except for the number of shares, each of which was adjusted by the Exchange Ratio.

The Merger was accounted for as a reverse recapitalization in accordance with GAAP. Under this method of accounting, Novus was treated as the acquired company for financial reporting purposes. The reverse recapitalization accounting treatment was primarily determined based on the shareholders of Legacy Energy Vault having a relative majority of the voting power of Energy Vault and having the ability to nominate the majority of the members of the Energy Vault Board, senior management of Legacy Energy Vault comprise the senior management of Energy Vault, and the operations of Legacy Energy Vault prior to the Merger comprise the ongoing operations of Energy Vault. Accordingly, for accounting

purposes, the financial statements of the combined entity upon consummation of the Merger represent a continuation of the financial statements of Legacy Energy Vault with the Merger being treated as the equivalent of Legacy Energy Vault issuing shares for the net assets of Novus, accompanied by a recapitalization. The net assets of Novus were recognized at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Merger are presented as those of Legacy Energy Vault and the accumulated deficit of Legacy Energy Vault has been carried forward after Closing.

All periods prior to the Merger have been retroactively adjusted using the Exchange Ratio for the equivalent number of shares outstanding immediately after the Closing to effect the reverse recapitalization.

The number of common stock issued following the consummation of the Merger was as follows (amounts in thousands):

	Shares
Legacy Energy Vault stock converted as part of Merger [(1)]	106,172
Novus public shares [(2)]	4,079
Novus sponsor shares [(3)]	3,975
PIPE shares	19,500
Total shares of Energy Vault common stock issued as part of the Merger	133,726

[(1)] Excludes 9.0 million common shares issuable in earn-out arrangements as they are not issuable until 90 days after the Closing and are contingently issuable based upon the Company's share price meeting certain thresholds.
[(2)] Excludes 14.7 million warrants issued and outstanding as of the Closing of the Merger which includes 9.6 million public warrants and 5.2 million private warrants held by the Novus Sponsor.
[(3)] Includes 1.6 million common shares that have transfer restrictions based on the Company's share price meeting certain thresholds. These 1.6 million common shares are held in escrow and are subject to potential forfeiture.

NOTE 4. REVENUE RECOGNITION

The Company recognized revenue for the product and service categories as follows for the years ended December 31, 2022 and 2021 (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Build and transfer energy storage products [(1)]	$ 85,636	$ —
Licensing of intellectual property [(2)]	58,483	—
Other [(1)]	1,758	—
Total revenue	$ 145,877	$ —

[(1)] Represents revenue recognized over time
[(2)] Represents revenue recognized at a point-in-time.

Other revenue includes revenue of $0.7 million related to the amortization of deferred revenue related to providing construction support services to Atlas during the year ended December 31, 2022. Additionally, other revenue includes revenue of $1.1 million related to cost reimbursements from Atlas for providing construction support services during the year ended December 31, 2022.

The following table summarizes the Company's revenue disaggregated by geographic region, which is determined based on the customer's location, for the years ended December 31, 2022 and 2021 (amounts in thousands):

	Year Ended December 31,	
	2022	2021
United States	$ 85,635	$ —
China	50,518	—
Other	9,724	—
Total revenue	$ 145,877	$ —

Remaining Performance Obligations

Remaining performance obligations represent the amount of unearned transaction prices under contracts for which work is wholly or partially unperformed. As of December 31, 2022, the amount of the Company's remaining performance obligations was $331.0 million. The Company generally expects to recognize the majority of the remaining performance obligations as revenue within the next twelve months.

Contract Balances

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

	December 31,	
	2022	2021
Refundable contribution	$ 25,000	$ —
Unbilled receivables	531	—
Retainage	3,447	—
Contract assets	$ 28,978	$ —
Contract liabilities, current portion	$ 49,434	$ —
Contract liabilities, long-term portion	1,500	1,500
Total contract liabilities	$ 50,934	$ 1,500

Contract assets consist of a refundable contribution, unbilled receivables, and retainage. Refundable contribution represents the contribution the Company made to Atlas to be used during the construction of its first GESS, which will be refunded to the Company upon Atlas' first GESS obtaining substantial completion, subject to adjustments for potential liquidated damages if certain performance metrics are not met. Unbilled receivables represent the estimated value of unbilled work for projects with performance obligations recognized over time. Retainage represents a portion of the contract amount that has been billed, but for which the contract allows the customer to retain a portion of the billed amount until final contract settlement. Retainage is not considered to be a significant financing component because the intent is to protect the customer.

Contract liabilities consist of deferred revenue. Under certain contracts, the Company may be entitled to invoice the customer and receive payments in advance of performing the related contract work. In those instances, the Company recognizes a liability for advance billings in excess of revenue recognized, which is referred to as deferred revenue. Deferred revenue is not considered to be a significant financing component because it is generally used to meet working capital demands that can be higher in the early stages of a contract.

NOTE 5. FAIR VALUE MEASUREMENTS

Carrying amounts of certain financial instruments, including cash, accounts payable, and accrued liabilities approximate their fair value due to their relatively short maturities and market interest rates, if applicable.

The Company categorizes assets and liabilities recorded or disclosed at fair value on the consolidated balance sheet based upon the level of judgment associated with inputs used to measure their fair value. The categories are as follows:

- *Level 1*—Inputs which included quoted prices in active markets for identical assets and liabilities.
- *Level 2*—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices 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 in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The Company's financial assets and liabilities that were measured at fair value on a recurring basis as of December 31, 2022 and December 31, 2021 were as follows (amounts in thousands):

	December 31, 2022			
	Level 1	Level 2	Level 3	Total
Assets (Liabilities):				
Derivative asset — conversion option [1]	—	—	1,025	1,025
Warrant liability [2]	—	—	2	2

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
Assets (Liabilities):				
Derivative asset — conversion option [1]	—	—	350	350

[1] Refer to Note 7 - *Convertible Note Receivable* for further information.
[2] Refer to Note 12 - *Warrants* for further information.

NOTE 6. RELATED PARTY TRANSACTIONS

In May 2019, the Company received a $1.5 million deposit for an "EV1" tower from a customer that is owned by one of its primary shareholders; the order remains outstanding as of December 31, 2022. The deposit and order were received before the owner of the customer became one of the Company's primary shareholders and before it was represented on the Company's Board. This deposit is recognized in the line item, contract liabilities, long-term portion, in the consolidated balance sheets.

For the years ended December 31, 2022 and 2021, the Company paid contracted engineering, design, and civil tolerance code calculation support of $0.4 million and $0.3 million, respectively, to an immediate family member of an executive officer. The Company retains all intellectual property as part of these services.

For the years ended December 31, 2022 and 2021, the Company paid construction labor costs of $0.5 million and $0.5 million, respectively, for EV1 tower dismantlement and EVx test bed construction to a local company owned by an immediate family member of an employee.

During the year ended December 31, 2022, the Company paid $1.2 million in marketing and sales costs to a company that has a director who is an officer of the Company, and $0.3 million in primary market research and business development consulting costs to a company owned by an officer of the Company.

NOTE 7. CONVERTIBLE NOTE RECEIVABLE

In October 2021, the Company entered into a convertible promissory note purchase agreement with DG Fuels, LLC ("DG Fuels") and purchased a promissory note with a principal balance of $1.0 million ("DG Fuels Tranche 1 Note"). In April 2022, the Company purchased an additional promissory note from DG Fuels with a principal balance of $2.0 million. ("DG Fuels Tranche 2 Note") (collectively, the "DG Fuels Note"). The convertible promissory note is recorded in other assets in the consolidated balance sheets.

The maturity date of the DG Fuels Note is the earlier of (i) 30 days after a demand for payment is made by the Company at any time after the two year anniversary of the date of issuance of the note; (ii) the four year anniversary of the date of issuance of the note; (iii) five days following a Financial Close ("Financial Close" means a project finance style closing by DG Fuels or its subsidiary of debt and equity capital to finance the construction of that certain biofuel facility currently under development by DG Fuels), or (iv) upon an event of default determined at the discretion of the Company. The DG Fuels Note has an annual interest rate of 10.0%.

The Company intends to hold and convert the DG Fuels Note into the equity securities issued by DG Fuels in its next equity financing round that is greater than $20.0 million at a 20% discount to the issuance price. The principal balance and unpaid accrued interest on the DG Fuels Note will, at the option of the Company, convert into equity securities upon the closing of such next equity financing round.

The discounted conversion rate in the DG Fuels Note is considered a redemption feature that is an embedded derivative, which requires bifurcation and separate accounting at its estimated fair value under ASC 815 – *Derivative and Hedging*.

The embedded derivative upon the purchase of the DG Fuels Tranche 1 Note was an asset of $0.4 million and the embedded derivative upon the purchase of the DG Fuels Tranche 2 Note was an asset of $0.7 million. The estimated fair value of the derivative instruments were recognized as a derivative asset on the consolidated balance sheets, with an offsetting discount to the DG Fuels Note. The Company amortizes the discount on the Note into interest income using the effective interest method. The Company recognized interest income of $0.3 million and $21 thousand for the years ended December 31, 2022 and 2021, respectively, from the DG Fuels Note. Interest income included income from the amortization of the debt discount of $0.1 million and $4 thousand for the years ended December 31, 2022 and 2021, respectively.

At each reporting period, the Company remeasures this derivative financial instrument to its estimated fair value. The change in the estimated fair value is recorded in other income (expense), net in the consolidated statements of operations and comprehensive loss. For the years ended December 31, 2022 and 2021, there was no change in fair value of the embedded derivative.

A reconciliation of the beginning and ending asset balance for the embedded derivative in the DG Fuels Note is as follows (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Balance at beginning of period	$ 350	$ —
Additions	675	350
Change in fair value	—	—
Balance at end of period	$ 1,025	$ 350

The Company has determined that DG Fuels is a variable interest entity and that the Company has a variable interest in it through the DG Fuels Note. The Company is not the primary beneficiary of DG Fuels, and thus is not required to consolidate DG Fuels. The Company’s maximum exposure to loss related to DG Fuels is limited to the Company’s investment of $3.0 million.

NOTE 8. PROPERTY AND EQUIPMENT, NET

As of December 31, 2022 and 2021, property and equipment, net consisted of the following (amounts in thousands):

		December 31,	
	Life (years)	2022	2021
Brick machines	6	$ 657	$ 2,515
Finance lease right-of-use assets – vehicles	4	178	175
Furniture and IT equipment	3 - 7	815	176
Leasehold improvements	4 - 7	529	179
Demonstration & test equipment		—	11,218
Construction in progress		1,268	—
Total property and equipment		3,447	14,263
Less: accumulated depreciation		(403)	(2,395)
Property and equipment, net		$ 3,044	$ 11,868

For the years ended December 31, 2022 and 2021 depreciation and amortization related to property and equipment was $7.7 million and $2.3 million, respectively.

The Company recognized impairment charges related to property and equipment of $2.8 million for the year ended December 31, 2022 on its demonstration and test equipment and brick machines.

Due to a change in the facts and circumstances during the year ended December 31, 2022, the Company completed the dismantling of the EV1 CDU during the 2022 fiscal year. Accordingly, the Company wrote off the carrying value of the demonstration and test equipment and certain components of the brick machines that could only be used for the EV1 CDU. This change in the facts and circumstances resulted in the recognition of accelerated depreciation of $3.8 million and

impairment charges of $2.8 million during the year ended December 31, 2022. The Company did not recognize any impairment charges on property and equipment, net during the year ended December 31, 2021.

NOTE 9. ASSET RETIREMENT OBLIGATION

The Company's ARO relates to its obligation to dismantle the EV1 CDU and restore the land the EV1 CDU was located on to its original condition. The EV1 CDU was dismantled during 2022, but land restoration has not yet been completed as of December 31, 2022.

The following table summarizes the asset retirement obligation activity for the years ended December 31, 2022 and 2021 (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Balance at beginning of period	$ 978	$ 123
Changes in estimates	—	751
Accretion expense	95	107
Liabilities settled	(487)	—
Foreign currency translation gain	(26)	(3)
Balance at end of period	$ 560	$ 978

NOTE 10. DEFINED BENEFIT PENSION OBLIGATION

The Company has a defined benefit pension plan for its employees in its wholly owned Switzerland subsidiary. The plan is a statutory requirement in accordance with local regulations. The Swiss pension plans are governed by the Swiss Federal Law on Occupational Retirements, Survivors' and Disability Pension plans. The Company used third party providers to administer these plans. Benefits provided by the pension plan are based on years of service and employees' remuneration over their employment period. The Company uses December 31 as the year end measurement date for this plan.

The Company's policy is to fund its pension obligations in conformity with the funding requirements under applicable laws and governmental regulations. The pension plans maintain investment policies that, among other things, establish a portfolio asset allocation methodology with percentage allocation bands for individual asset classes. The investment policies provide that investments are reallocated between asset classes as balances exceed or fall below the appropriate allocation bands.

The assumption used for the expected long-term rate of return on plan asset is based on the long-term expected returns for the investment mix of assets currently in the portfolio. Historical return trends for the various asset classes in the class portfolio are combined with current and anticipated future market conditions to estimate the rate of return for each class. These rates are then adjusted for anticipated future inflation to determine estimated nominal rates of return for each class.

The accumulated benefit obligation (ABO) represents the obligations of a pension plan for past service as of the measurement date, which is the present value of benefits earned to date based on current compensation levels.

Obligations and Funded Status

The following table presents the defined benefit plans' funded status and amount recognized in the consolidated balance sheets as of December 31, 2022 and 2021 (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Change in Benefit Obligation		
Benefit obligation at beginning of year	$ 2,662	$ 2,425
Service cost	162	130
Interest cost	9	5
Actuarial (gain) loss	(149)	99
Benefits paid	866	40
Plan participant's contributions	137	86
Plan amendments	350	(50)
Foreign currency translation adjustments	8	(73)
Benefit obligation at end of year	$ 4,045	$ 2,662
Change in Plan Assets		
Fair value of plans assets at beginning of year	$ 1,928	$ 1,592
Actual return on plans' assets	74	214
Employer contributions	137	43
Benefits paid	866	40
Plan participant's contributions	137	85
Foreign currency translation adjustments	13	(46)
Fair value of plans assets at end of year	$ 3,155	$ 1,928
Funded Status at End of Year		
Fair value of plan assets	$ 3,155	$ 1,928
Benefit obligation	(4,045)	(2,662)
Liability recognized at end of year	$ (890)	$ (734)

Components of Net Periodic Benefit Cost

The components of net periodic pension benefit cost for the Company's defined benefit pension plans for the years ended December 31, 2022 and 2021 were as follows (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Employer service costs	$ 162	$ 130
Interest cost	9	5
Expected return on plan assets	(72)	(53)
Amortization of net prior service credit	(13)	(7)
Amortization of net loss	39	59
Net periodic benefit cost	$ 125	$ 134

Impact on Accumulated Other Comprehensive Income (Loss)

Amounts recognized in accumulated other comprehensive income (loss) at December 31, 2022 and 2021 were as follows (amounts in thousands):

	December 31,	
	2022	2021
Net prior service credit (cost)	$ (262)	94
Net loss	(383)	(551)
Accumulated other comprehensive loss	$ (645)	$ (457)

Changes in accumulated other comprehensive income (loss) for the Company's pension plan were as follows (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Accumulated other comprehensive loss at beginning of year	$ (457)	(623)
Change in net prior service credit (cost)	(360)	40
Change in net gain	189	112
Foreign currency translation adjustments	(17)	14
Accumulated other comprehensive loss at end of year	$ (645)	$ (457)

Assumptions

The assumptions used to measure the benefit obligation and net periodic benefit cost for the Company's defined benefit pension plan were as follows:

	2022	2021
Discount rate	1.8 %	0.4 %
Expected long-term return on plan assets	4.7 %	3.8 %
Rate of compensation increase	1.5 %	1.0 %
Pension increase rate (in payment)	0.0 %	0.0 %

Investment Strategy

As is customary with Swiss pension plans, the plan assets are invested in a Swiss collective fund with multiple employers. The Company does not have rights to the individual assets of the plans nor does the Company have investment authority over the assets of the plans. The collective fund maintains a variety of investment positions primarily in equity securities and highly rated debt securities. The valuation of the collective fund assets as a whole is a Level 3 measurement; however the individual investments of the fund are generally Level 1 (equity securities and cash), Level 2 (fixed income) and Level 3 (real estate and alternative) investments. The Company determines the fair value of the plan assets based on information provided by the collective fund, through review of the collective fund's annual financial statements, and the Company further considers whether there are other indicators that the investment balances reported by the fund could be impaired. The Company concluded that no such impairment indicators were present at December 31, 2022.

The Swiss pension plans' actual asset allocation as compared to the plan administrators' target asset allocations for fiscal years 2022 and 2021 were as follows:

	2022	2021	Target
Equity instruments (Level 1)	47.3 %	50.2 %	30%–55%
Debt instruments (Level 2)	9.7 %	10.6 %	5%–30%
Real estate (Level 3)	30.0 %	26.4 %	15%–40%
Alternative investments (Level 3)	7.7 %	5.3 %	0%–15%
Cash and equivalents (Level 1)	5.3 %	7.5 %	0%–15%
Total	100.0 %	100.0 %	

Cash Flows

Estimated future benefit payments expected to be paid by the defined benefit pension plan at December 31, 2022 are as follows (amounts in thousands):

Year Ending December 31,	Future Benefits
2023	$ 42
2024	43
2025	43
2026	44
2027	45
Thereafter	227
Total	$ 444

The estimated employer contribution to the defined benefit pension plan in fiscal year 2023 is approximately $0.2 million.

Defined Contribution Plan

The Company sponsors a defined contribution retirement plan for its United States employees. The Company did not make any matching contributions during 2022 and 2021. In January 2023, the Company began matching participants' contributions up to a maximum of 3.5% of compensation.

NOTE 11. LEASES

The Company has operating leases for its corporate offices, field offices, and vehicles. The Company recognizes a ROU asset and lease liability for operating leases based on the net present value of future minimum lease payments. Lease expense is recognized on a straight-line basis over the non-cancelable lease term and renewal periods that are considered reasonably certain.

The Company has finance leases for vehicles. The Company recognizes a ROU asset and lease liability for finance leases based on the net present value of future minimum lease payments. Lease expense for the Company's finance leases is comprised of the amortization of the right of use asset and interest expense recognized based on the effective interest method.

The components of lease expense for the years ended December 31, 2022 and 2021 are as follows (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Operating lease expense	$ 853	$ 647
Finance lease expense		
Amortization of finance ROU assets	47	45
Interest on finance lease liabilities	2	3
Short-term lease expense	339	80
Variable lease expense	12	3
Sublease income	(9)	—
Total	$ 1,244	$ 778

Supplemental balance sheet information related to leases as of December 31, 2022 and 2021 is as follows:

	December 31,	
	2022	2021
Weighted Average Remaining Lease Term (Years)		
Operating leases	2.4	2.2
Finance leases	2.1	1.8
Weighted Average Discount Rate		
Operating leases	8.6 %	7.4 %
Finance leases	4.4 %	2.8 %

Supplemental cash flow information related to leases for the fiscal years ended December 31, 2022 and 2021 is as follows (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Cash Paid for Amounts Included in the Measurement of Lease Liabilities		
Operating cash flows used for operating leases	$ 836	$ 532
Operating cash flows used for finance leases	2	3
Financing cash flows used for finance leases	62	53
	$ 900	$ 588
ROU Assets obtained in Exchange for Lease Liabilities		
Operating leases	$ 962	$ 476
Finance leases	37	44
	$ 999	$ 520

Future maturities of operating and finance lease liabilities as of December 31, 2022 are as follows (amounts in thousands):

	Operating Leases	Finance Leases
2023	$ 876	$ 40
2024	482	6
2025	110	6
2026	105	5
2027	61	—
Thereafter	—	—
Total undiscounted cash flows	1,634	57
Less imputed interest	(138)	(3)
Present value of lease liabilities	$ 1,496	$ 54

NOTE 12. WARRANTS

Upon the Closing of the Merger, the Company assumed 9.6 million Public Warrants and 5.2 million Private Warrants. Each whole warrant entitles the holder to purchase one share of the Company's common stock at an exercise price of $11.50 per share, subject to adjustments. The warrants became exercisable on March 13, 2022, and at that time were scheduled to expire on February 11, 2027, which represents five years after the Closing.

The Company filed a Registration Statement on Form S-1 on March 8, 2022 related to the issuance of an aggregate of up to approximately 14.8 million shares of common stock issuable upon the exercise of the Public and Private Warrants, which was declared effective by the SEC on May 6, 2022.

Public Warrants

On July 1, 2022 the Company announced ("Redemption Notice") it would redeem all of its Public Warrants that remained outstanding at 5:00 p.m. New York City time on August 1, 2022 (the "Redemption Date") for $0.10 per warrant (the "Redemption Price"). The Public Warrant Holders were permitted to exercise their warrants and receive common stock (i) in exchange for a payment in cash of the $11.50 per warrant exercise price, or (ii) on a cashless basis in which the exercising holder received 0.2526 of common stock for each warrant surrendered for exercise. Any Public Warrants that remained unexercised at 5:00 p.m. New York City time on the Redemption Date would be void and no longer exercisable, and the holders of those Public Warrants would be entitled to receive only the Redemption Price.

Prior to the Redemption Notice, 0.7 million shares of common stock were issued related to the exercise of an equivalent number of Public Warrants. Subsequent to the Redemption Notice, 2.2 million shares of common stock were issued upon the cashless exercise of 8.7 million Public Warrants. 0.2 million in unexercised and outstanding Public Warrants as of 5:00 p.m., August 1, 2022 were redeemed at a price of $0.10 per Public Warrant. No Public Warrants remained outstanding as of December 31, 2022.

Private Warrants

The Private Warrants are exercisable on a cash or cashless basis, at the warrant holders' option, and are not redeemable by the Company, in each case so long as the warrants are still held by Novus or their permitted transferees. If the Private Warrants are no longer held by Novus or their permitted transferees, the redemption right included in the Public Warrants will attach to the Private Warrants. The Private Warrants are exercisable until February 11, 2027.

The following table summarizes the Public and Private Warrants activities for the year ended December 31, 2022 (amounts in thousands):

	Year Ended December 31, 2022		
	Public Warrants	Private Warrants	Total Warrants
Warrants assumed upon the Closing of the Merger	9,583	5,167	14,750
Warrants exercised	(9,348)	—	(9,348)
Warrants redeemed	(235)	—	(235)
End of period	—	5,167	5,167

The Public Warrants were classified as Level 1 measurements as the Public Warrants had an adequate trading volume to provide reliable indication of value from the Closing of the Merger to the Redemption Date. The Private Warrants were classified as Level 2 from the Closing of the Merger until the Redemption Date because the Private Warrants had similar terms to the Public Warrants. Upon the ceasing of trading of the Public Warrants on the Redemption Date, the fair value measurement of the Private Warrants transferred from Level 2 to Level 3 and the Company used a Black Scholes model to determine the fair value of the Private Warrants. The primary significant unobservable input used to evaluate the fair value measurement of the Company's Private Warrants is the expected volatility. A significant increase in the expected volatility in isolation would result in a significantly higher fair value measurement. The Private Warrants were valued at less than $0.01 per warrant as of December 31, 2022.

The following table provides the assumptions used to estimate the fair value of the Private Warrants as of December 31, 2022:

	December 31, 2022
Common stock price	$ 3.12
Exercise price	$ 11.50
Expected term (in years)	4.12
Expected volatility	17.4 %
Risk-free interest rate	4.1 %
Expected dividend yield	— %

The Public and Private Warrants are measured at fair value on a recurring basis. The following table presents the changes in the fair value of the Company's Public and Private Warrants liabilities for the year ended December 31, 2022 (amounts in thousands):

	Year Ended December 31, 2022		
	Public Warrants	Private Warrants	Total Warrants
Warrant liability assumed upon the Closing of the Merger	$ 12,938	$ 6,900	$ 19,838
Warrants exercised	(17,483)	—	(17,483)
Warrants redeemed	(23)	—	(23)
Change in fair value	4,568	(6,898)	(2,330)
Warrant liability at end of period	$ —	$ 2	$ 2

NOTE 13. SUPPLEMENTAL BALANCE SHEETS DETAIL

(amounts in thousands)	December 31, 2022	December 31, 2021
Prepaid expenses and other current assets:		
Deposits for project equipment and materials	$ 24,327	$ —
Prepaid expenses	6,609	1,140
Tax refund receivable	454	121
Deferred merger costs	—	4,121
Other	179	156
Total	$ 31,569	$ 5,538

(amounts in thousands)	December 31, 2022	December 31, 2021
Other assets:		
Investment in equity securities	$ 9,000	$ —
Convertible note receivable	2,080	654
Derivative asset — conversion option	1,025	350
Other	1,795	521
Total	$ 13,900	$ 1,525

(amounts in thousands)	December 31, 2022	December 31, 2021
Accrued Expenses:		
Employee costs	$ 8,711	$ 3,756
Taxes payable	4,168	—
Professional fees	1,671	81
Prototype costs	—	716
Other	199	151
Total	$ 14,749	$ 4,704

NOTE 14. STOCKHOLDERS' EQUITY

Redeemable Convertible Preferred Stock

As part of the Merger, 85.7 million shares of issued and outstanding redeemable convertible preferred stock were cancelled and converted into 85.7 million shares of Energy Vault common stock based upon an exchange ratio of 6.7735. A total of $182.7 million redeemable convertible preferred stock was reclassified into common stock and additional paid-in-capital on the consolidated balance sheet.

As of December 31, 2021, the Company's convertible preferred stock consisted of the following (amounts in thousands and adjusted for Merger exchange ratio):

	Shares Designated	Shares Issued and Outstanding	Liquidation Preference
Series C preferred stock	14,787	14,787	$ 107,000
Series B-1 preferred stock	14,475	14,475	31,003
Series B preferred stock	14,651	14,651	25,003
Series A-2 preferred stock	5,087	5,087	3,555
Series A-1 preferred stock	6,950	6,950	3,076
Series Seed 2 preferred stock	4,240	4,240	934
Series Seed 1 preferred stock	11,190	11,190	753
Series FR preferred stock	14,361	14,361	25
	85,741	85,741	$ 171,349

The significant rights and preferences of the outstanding convertible preferred stock through the closing of the Merger were as follows:

Dividends

Through the closing date, the holders of each class of convertible preferred stock had been entitled to receive non-cumulative dividends at 8% per annum, if and when declared by the Board. Through the closing date of the Merger, no dividends had been declared.

Conversion

Until the closing of the Merger, each class of preferred stock was convertible to common stock at the option of the holder at the conversion price (as defined in the articles of incorporation) which was initially equal to the original issuance price of each of the preferred stock issuances. The preferred stock would be automatically converted to common stock upon the earlier of; (a) a firm commitment underwritten initial public offering to an effective registration statement and sale of common stock to the public of not less than $49.0258 per share (minimum price per share does not apply to Series FR, Seed 1 and Seed 2 preferred stock) with gross proceeds not less than $50.0 million, or (b) by written consent of the holders of a majority of the then outstanding shares of preferred stock voting as single class on an as-converted to common stock basis, with the holders of the Series A, Seed 2, Seed 1, and Series FR preferred stock voting as a separate class on an as-converted basis, the holders of the Series B voting as a separate class on an as-converted basis, the holders of the Series B-1 voting as a separate class on an as-converted basis, and the holders of the Series C voting as a separate class on an as-converted basis.

The conversion price was subject to adjustment for stock splits and stock dividends, reorganization, reclassifications, or similar events and was to be adjusted proportionately. The conversion price would have also been adjusted for certain dilutive issuances of common stock or securities exercisable or convertible into common stock at a price below the conversion price in effect at the time (price protection or ratchet feature). The adjustment to the conversion price would have been determined by multiplying the conversion price by a fraction calculated as the diluted shares pre-issuance at the conversion price divided by the common stock pre-issuance plus the additional stock issued (partial ratchet).

Liquidation

Until the closing of the Merger, in the event of any liquidation, dissolution, or winding up of the Company, the holders of Series B, Series B-1 and Series C preferred stock would have been entitled to, in preference to the holders of each of the other classes of preferred stock, and to the common stockholder, an amount equal to the original issuance price plus declared but unpaid dividends. After payment in full to the holders of Series B, Series B-1 and Series C preferred stock, and prior to any distribution to the common stockholders, each of the other classes of preferred stock would have been entitled to receive an amount equal to the original issue price plus declared and unpaid dividends on such shares, payable on a pari-passu basis among the Series.

A liquidation, dissolution, or winding up of the Company would have been deemed to have occurred upon completion of any transaction or event that resulted in a change of control as defined in the articles of incorporation (a "Deemed Liquidation Event"). Upon a Deemed Liquidation Event, the preferred stock would have become redeemable at the option of the holder and the Company would have been required to provide written notice to the holders of the preferred stock within 90 days of such an event informing them of their right to redeem the preferred stock. For purposes of determining the amount each holder of preferred stock would have been entitled to receive upon a Deemed Liquidation Event, each class of preferred stock would have been deemed to have automatically converted their shares into common stock at the as converted value (even if not elected by the holder) immediately prior to such a Deemed Liquidation Event, if the value was greater than the amount that would have been distributed to the holder of the preferred stock if it were not converted.

Voting

Until the closing of the Merger, each share of preferred stock was entitled to the number of votes equal to the number of shares of common stock into which the shares of preferred stock so held could be converted at the record date.

Common Stock

On February 11, 2022, in connection with the reverse recapitalization treatment of the Merger, the Company effectively issued 27.6 million new shares of common stock. Additionally as part of the Merger, the Company converted all 3.0 million issued and outstanding common stock and all 12.7 million issued and outstanding convertible preferred stock of Legacy Energy Vault into 106.2 million new shares of common stock using an exchange ratio of 6.7735.

NOTE 15. STOCK-BASED COMPENSATION

2017 Stock Incentive Plan

In 2017, the Company adopted its 2017 Stock Incentive Plan (the "2017 Plan") which provides for the granting of stock options, restricted stock, and RSUs to employees, directors, and consultants of the Company. Options granted under the 2017 Plan were either ISOs or Nonqualified Stock Options ("NSOs"). Awards under the 2017 Plan may be granted for periods of up to ten years. Under the terms of the 2017 Plan, awards may be granted at an exercise price not less than the estimated fair value of the shares on the date of grant, as determined by the Company's Board. For employees holding more than 10% of the voting rights of all classes of stock, the exercise price of ISOs and NSOs may not be less than 110% of the estimated fair value of the shares on the date of grant, as determined by the Board. Awards generally vest over one to four years.

2020 Stock Incentive Plan

In 2020, the Company adopted its 2020 Stock Incentive Plan (the "2020 Plan") which superseded the previous 2017 Plan. The 2020 Plan provides for the granting of stock options, restricted stock, and RSUs to employees, directors, and consultants of the Company. Options granted under the 2020 Plan may be either ISOs or NSOs. Awards under the 2020 Plan may be granted for periods of up to ten years. Under the terms of the 2020 Plan, awards may be granted at an exercise price not less than the estimated fair value of the shares on the date of grant, as determined by the Company's Board. For employees holding more than 10% of the voting rights of all classes of stock, the exercise price of ISOs and NSOs may not be less than 110% of the estimated fair value of the shares on the date of grant, as determined by the Board. Awards generally vest over one to four years.

2022 Equity Incentive Plan

In 2022, the Company adopted its 2022 Equity Incentive Plan (the "2022 Incentive Plan"), which superseded the previous 2020 Plan, provides for the granting of stock options, stock appreciation rights ("SARs"), restricted stock, and RSUs to employees, non-employee directors, and consultants of the Company. Shares of common stock underlying awards that expire or are forfeited or canceled will again be available for issuance under the 2022 Incentive Plan.

The number of shares of the Company's common stock reserved for issuance under the 2022 Incentive Plan is approximately 15.5 million, plus up to approximately 8.3 million shares subject to awards granted under the 2017 and 2020 Plans. Additionally, beginning on March 1, 2022 and ending on (and including) March 31, 2031, the number of shares of the Company's common stock that may be issued under the 2022 Incentive Plan will increase by a number of shares equal to the lesser of (i) 4.0% of the outstanding shares on the last day of the immediately preceding fiscal year or (ii) such lesser

number of shares (including zero) that the Company's Board determines for the purposes of the annual increase for that fiscal year.

2022 Inducement Plan

In 2022, the Company adopted its 2022 Inducement Plan, which provides for the granting of stock options, SARs, restricted stock, and RSUs to individuals who were not previously employees of Energy Vault, or following a bona fide period of non-employment, as inducement material to such individuals entering into employment with Energy Vault. Shares of common stock underlying awards that expire or are forfeited or canceled will again be available for issuance under the 2022 Inducement Plan. 8.0 million shares of the Company's common stock are reserved for issuance under the 2022 Inducement Plan.

Stock Option Activity

Stock option activity for the years ended December 31, 2022 and 2021 are as follows (amounts in thousands, except per share data):

	Options Outstanding			
	Number of Options [(1)]	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Balance as of December 31, 2020	576	$ 0.09	7.48	$ 423
Stock options granted	1,142	0.89		
Stock options exercised	(373)	0.01		
Balance as of December 31, 2021	1,345	0.79	9.11	7,024
Stock options exercised	(212)	0.80		
Stock options forfeited, canceled, or expired	(40)	0.80		
Balance as of December 31, 2022	1,093	0.79	8.10	2,551
Options exercisable as of December 31, 2022	796	0.69	7.89	1,936
Options vested and expected to vest as of December 31, 2022	1,093	$ 0.79	8.10	2,551

(1) The number of options prior to the Merger have been retroactively restated to reflect the exchange ratio of 6.7735 established in the Merger.

As of December 31, 2022, total unamortized stock-based compensation expense related to unvested awards that are expected to vest was $0.6 million. The weighted-average period over which such stock-based compensation expense will be recognized is approximately 2.74 years.

The aggregate intrinsic values of options outstanding, exercisable, vested and expected to vest were calculated as the difference between the exercise price of the options and the closing stock price of the Company's common stock on the NYSE as of December 31, 2022.

The Company estimates the fair value of the options on the grant date utilizing the Black-Scholes option pricing model. No options were granted during 2022. Options granted during 2021 were valued based on the following range and weighted-average assumptions:

	2021
Common stock price [(1)]	$0.93 - $4.98
Expected term (in years)	6.25
Expected volatility	90.0 %
Risk-free interest rate	0.1 %
Expected dividend yield	—

[(1)] The stock price prior to the Merger has been retroactively restated to reflect the exchange ratio of 6.7735 established in the Merger.

Restricted Stock Units

Stock-based compensation expense for awards with only service conditions are recognized on a straight-line basis over the requisite service period of the award. Generally, awards granted under the 2022 plans vest based solely on a service condition. RSUs granted under the 2020 Plan contain both a service-based vesting condition and liquidity event-based vesting condition. The liquidity event-based vesting condition was satisfied upon the closing of the Merger. The service-based vesting period for these awards is generally three or four years, with a cliff vesting period of one year, and continue to vest monthly or quarterly thereafter.

During 2022, the Company granted RSUs to its CEO that vest based on a market-based condition. These RSUs will vest and convert to common stock subject to the Company's stock price reaching certain price targets for 20 days in any 30 day trading window. The fair value of the RSUs will be recognized as expense over the requisite service period regardless of whether or not the RSUs ultimately vest and convert to common stock. The fair value of these market-based RSUs were measured on their respective grant dates, using a Monte Carlo simulation model based on the following range and weighted-average assumptions:

	2022
Common stock price	$2.93 - $3.10
Expected term (in years)	4.00 - 6.27
Expected volatility	90.0 %
Risk-free interest rate	3.6% - 3.8%
Expected dividend yield	—

As of December 31, 2022, none of the stock price targets have been achieved for the market-based RSUs.

RSU activity for the years ended December 31, 2022 and 2021 are as follows (amounts in thousands, except per share data):

	RSUs [1]	Weighted Average Grant Date Fair Value per Share
Nonvested balance as of December 31, 2020	—	$ —
RSUs granted	6,170	2.11
Nonvested balance as of December 31, 2021	6,170	2.11
RSUs granted	23,412	6.31
RSUs forfeited	(561)	5.64
RSUs vested	(5,222)	1.55
Nonvested balance as of December 31, 2022	23,799	5.87

[1] The number of RSUs prior to the Merger have been retroactively restated to reflect the exchange ratio of 6.7735 established in the Merger.

As of December 31, 2022, unrecognized stock-based compensation expense related to these RSUs was $113.2 million which is expected to be recognized over the remaining weighted-average vesting period of approximately 3.01 years.

Unvested Common Stock/Restricted Stock Awards

The Company has certain common stocks that are subject to repurchase at the election of the Company. These repurchase rights expire over time and therefore are accounted for as unvested common stock. The Company has RSAs that vest upon the satisfaction of both a service-based condition and a liquidity event-based condition. The liquidity event-based vesting condition was satisfied upon the closing of the Merger.

The following table summarizes information about outstanding unvested stock activities for the years ended December 31, 2022 and 2021 (amounts in thousands):

	Unvested Common Stock [1]
Balances outstanding at December 31, 2020	3,051
New grants or issues	5,655
Common stock vested	(3,040)
Repurchased stock	(146)
Balances outstanding at December 31, 2021	5,520
Common stock vested	(5,520)
Balances outstanding at December 31, 2022	—

[1] The number of RSAs prior to the Merger have been retroactively restated to reflect the exchange ratio of 6.7735 established in the Merger.

Stock-Based Compensation Expense

Total stock-based compensation expense for the years ended December 31, 2022 and 2021 is as follows (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Sales and marketing	$ 5,111	$ 67
Research and development	14,775	370
General and administrative	21,172	63
Total stock-based compensation expense	$ 41,058	$ 500

Total stock-based compensation expense for the year ended December 31, 2022 includes $7.1 million in expense that was recognized upon the Closing of the Merger, which includes $3.9 million related to RSUs and $3.2 million related to RSAs.

NOTE 16. INCOME TAXES

The components of pre-tax loss are as follows for the years ended December 31, 2022 and 2021 (amounts in thousands):

	Year Ended December 31,	
	2022	2021
United States	$ (52,509)	$ (12,308)
Switzerland	(25,363)	(19,029)
Total loss before tax	$ (77,872)	$ (31,337)

The following table presents the principal reasons for the difference between the effective tax rate and the federal statutory income tax rate:

	Year Ended December 31,	
	2022	2021
US federal statutory income tax rate	21.0 %	21.0 %
State and local income taxes, net of Federal benefit	2.7 %	0.3 %
Non-deductible expenses	(6.5)%	(0.5)%
Credits	0.7 %	0.4 %
Foreign rate differential	(0.9)%	(0.6)%
Valuation allowance	(17.6)%	(20.6)%
Effective income tax rate	(0.6)%	— %

The components of the provision for income taxes are as follows (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Current		
Federal	$ 388	$ —
State	39	1
Foreign	—	—
Total current tax provision	427	1
Deferred		
Federal	—	—
State	—	—
Foreign	—	—
Total deferred tax provision	—	—
Total provision for income taxes	$ 427	$ 1

The components of the deferred tax asset are as follows (amounts in thousands):

	December 31,	
	2022	2021
Deferred tax assets:		
Net operating loss carryforwards	$ 12,701	$ 10,905
Stock-based compensation	4,143	—
Revenue recognition	1,937	—
Accrued expense	1,324	425
Capitalized research and development	3,492	—
Credits	374	167
Operating lease liabilities	191	228
Other	289	139
Gross deferred tax assets	24,451	11,864
Less: valuation allowance	(24,043)	(11,405)
Net deferred tax assets	408	459
Deferred tax liabilities:		
Depreciation and amortization	(229)	(89)
Right of use assets	(179)	(213)
Other	—	(157)
Net deferred tax assets (liabilities)	$ —	$ —

In assessing the realizability of deferred tax assets, the Company considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Based upon the analysis of federal and state deferred tax balances, future tax projections and availability of taxable income in the carryback period, the Company recorded a valuation allowance against the federal, state, and international deferred tax assets of $24.0 million.

As of December 31, 2022, the Company had federal net operating losses of $3.4 million, state net operating losses of $21.9 million, and foreign net operating losses of $37.3 million available to offset future taxable income. The federal and state net operating loss carryforwards will begin to expire, if unutilized, beginning in 2038. The foreign net operating loss carryforwards will begin to expire, if unutilized, beginning in 2025.

At December 31, 2022, the Company had federal and state research tax credit carryforwards of $0.3 million and $0.3 million, respectively. The federal research tax credit carryforwards will begin to expire, if unutilized, in 2041. The state research tax credits do not expire.

At December 31, 2022 and 2021, the Company recorded $1.1 million, and $0.9 million, respectively, of unrecognized tax benefits. The Company's policy is to recognize interest and penalties related to uncertain tax positions, if any, in the income tax provision. During the years ended December 31, 2022 and 2021, the Company recognized no interest and penalties related to uncertain tax positions.

The following table summarizes the activity related to the Company's unrecognized tax benefits (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Balance at beginning of year	$ 908	$ 882
Increase related to prior year tax positions	31	13
Decrease related to prior year tax positions	—	(18)
Increase related to current year tax positions	127	31
Decrease related to lapsing status of limitation	—	—
Balance at end of year	$ 1,066	$ 908

The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate as of December 31, 2022 and 2021 was zero, due to the valuation allowance that would otherwise be recorded on the deferred tax asset associated with the recognized position.

The tax years ended December 31, 2019 through December 31, 2022 remain open to examination by the Internal Revenue Service and California Franchise Tax Board. In addition, the utilization of net operating loss carryforwards are subject to Federal and State review for the periods in which those net losses were incurred. The Company is not under audit by any taxing jurisdictions at this time.

Utilization of the net operating losses and tax credit carryforwards may be subject to an annual limitation based on changes in ownership, as defined by Section 382 and 383 of the Internal Revenue Code ("IRC") of 1986, as amended. The Company has done a preliminary Section 382 study and has determined that none of the net operating losses are currently permanently impaired due to 382 limitations.

The IRA was passed in August 2022, providing significant incentives for businesses to become more energy efficient by extending, increasing, or expanding credits applicable to the production of clean energy and fuels as well as other provisions. These changes do not have a material impact on the Company's tax provision.

NOTE 17. NET LOSS PER SHARE OF COMMON STOCK

The weighted-average number of shares of common stock outstanding prior to the Merger have been retroactively adjusted by the Exchange Ratio to give effect to the reverse recapitalization treatment of the Merger. Shares of common stock issued as a result of the conversion of Legacy Energy Vault convertible preferred stock in connection with the closing of the Merger have been included in the basic net loss per share calculation on a prospective basis.

Basic and diluted net loss per share attributable to common stockholders are calculated as follows (amounts in thousands, except per share amounts):

	Year Ended December 31,	
	2022	2021
Net loss	$ (78,299)	$ (31,338)
Weighted-average shares outstanding – basic and diluted [(1)]	123,241	12,780
Net loss per share – basic and diluted	$ (0.64)	$ (2.45)

[(1)] The weighted-average number of shares prior to the Merger have been retroactively restated to reflect the exchange ratio of 6.7735 established in the Merger.

There are no common stock and convertible preferred stock that were dilutive for the years ended December 31, 2022 and 2021. Due to net losses during those periods, 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 common share equivalent securities have been excluded from the calculation of diluted weighted-average common shares outstanding because the effect is anti-dilutive for the periods presented (amounts in thousands):

	Year Ended December 31,	
	2022	2021
Private Warrants	5,167	—
Stock options	1,093	1,345
Convertible preferred stock	—	85,741
RSUs	23,799	—
Total	30,059	87,086

The 9.0 million shares of common stock equivalents subject to the Earn-Out Shares are excluded from the anti-dilutive table above as of December 31, 2022, as the underlying shares remain contingently issuable as the Earn-Out Triggering Events have not been satisfied.

NOTE 18. COMMITMENTS AND CONTINGENCIES

Our principal commitments as of December 31, 2022 consisted primarily of obligations under operating leases, finance leases, deferred pensions, and issued purchase orders. Our non-cancellable purchase obligations as of December 31, 2022 totaled approximately $50.2 million.

In connection with the Company's licensing agreement with Atlas, the Company agreed to make a refundable contribution to Atlas in the amount up to $25.0 million during the period in which Atlas constructs its first GESS. As of December 31, 2022, the Company has contributed all $25.0 million. The refundable contribution will be returned to the Company upon Atlas' first GESS reaching substantial completion, subject to adjustment for potential liquidated damages if certain performance metrics are not met.

Other Commitments and Contingencies

Letters of Credit: In the ordinary course of business and under certain contracts, the Company is required to post letters of credit for its customers, insurance carriers, and surety bond providers for project performance, and for its vendors for payment guarantees. Such letters of credit are generally issued by a bank or a similar financial institution. The letter of credit commits the issuer to pay specified amounts to the holder of the letter of credit under certain conditions. As of December 31, 2022, there was $82.9 million of letters of credit issued and secured by the Company's cash. The Company is not aware of any material claims relating to its outstanding letters of credit.

Performance and Payment Bonds: In the ordinary course of business, Energy Vault is required by certain customers to provide performance and payment bonds for contractual commitments related to its projects. These bonds provide a guarantee that the Company will perform under the terms of a contract and that the Company will pay its subcontractors and vendors. If the Company fails to perform under a contract or to pay its subcontractors and vendors, the customer may demand that the surety make payments or provide services under the bond. The Company must reimburse the surety for expenses or outlays it incurs. As of December 31, 2022, there were no outstanding performance and payment bonds.

NOTE 19. SUBSEQUENT EVENTS

On February 28, 2023, the Company purchased $6.0 million in equity securities of a private company active in the energy transition industry. After this investment, the carrying value of the Company's investment in this private company totaled $15.0 million.

On March 10, 2023, the Federal Deposit Insurance Corporation ("FDIC") announced that it has closed and taken control of Silicon Valley Bank ("SVB"). On March 13, 2023, pursuant to a joint statement released by the U.S. Department of the Treasury, the U.S. Federal Reserve, and the FDIC, the U.S. government reassured that all depositors will be fully protected. In light of the situation, the Company has moved substantially all cash and other deposits previously held at SVB to larger financial institutions. The Company does not anticipate any disruptions to its ongoing operations.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in our reports filed or submitted under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

As part of the filing of this Form 10-K for the period ended December 31, 2022, our management, with the participation of our Chief Executive Officer ("CEO”) and Chief Financial Officer (“CFO”), evaluated the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act”). As a result of this evaluation, our CEO and CFO concluded that our disclosure controls and procedures were not effective due to the material weakness described below.

Limitations on the Effectiveness of Controls

The effectiveness of any system of disclosure controls and procedures and internal control over financial reporting, including ours, is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating, and evaluating the controls and procedures, and the inability to eliminate misconduct completely. Accordingly, in designing and evaluating the disclosure controls and procedures, management recognizes that any system of internal control over financial reporting, including ours, no matter how well designed and operated, can only provide reasonable assurance, not absolute assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Moreover, 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. We intend to continue to monitor and upgrade our internal controls as necessary or appropriate for our business but cannot assure you that such improvements will be sufficient to provide us with effective internal control over financial reporting for future periods. Because of its inherit limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected.

Management’s Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act). Internal control over financial reporting means a process designed by, or under the supervision of, a company’s principal executive and principal financial officers, and effected by the company’s board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP and includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company, (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the company are being made only in accordance with authorizations of the company’s management and directors, and (iii) provide reasonable assurance regarding the prevention or timely detection of unauthorized acquisition, use or disposition of the company’s assets that could have a material effect on the company’s financial statements.

Management, with the participation of our CEO and CFO, evaluated the effectiveness of our internal control over financial reporting as of December 31, 2022. This evaluation was conducted using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in the 2013 Internal Control – Integrated Framework. Based on this evaluation, management identified a material weakness in our internal control over financial reporting existed relating to the recognition of revenue from certain licensing contracts. Specifically, in connection with one of our licensing contracts, we did not implement effective background check controls for an international customers’ ability to pay in order to properly assess the probability that we will collect substantially all of the consideration to which we are entitled.

A material weakness is a deficiency or a combination of deficiencies, in a company's internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

Remediation Plan

We have commenced measures to remediate the identified material weakness by further developing and implementing formal policies, processes, and documentation procedures relating to financial reporting. We believe the steps taken to date and those planned for future implementation will improve the effectiveness of our internal control over financial reporting, although we have not yet completed all remediation efforts. The material weakness cannot be considered remediated until applicable controls have operated for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

Changes in Internal Control Over Financial Reporting

During the quarter ended December 31, 2022, management completed several changes to its internal control over financial reporting and remediated the previously reported material weaknesses. The following internal control changes were made to the Company's internal control over financial reporting:

- Hired additional accounting and financial reporting personnel to execute internal controls with appropriate technical accounting knowledge and public company experience in financial reporting;
- Designed and implemented effective processes and controls relating to financial reporting and the adoption of new technological solutions; and
- Engaged an accounting advisory firm to assist with the documentation, evaluation, remediation, and testing of the Company's internal control over financial reporting based on the criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Except as otherwise described herein, there were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Annual Report on Form 10-K that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item will be included in the Company's Proxy Statement to be filed with the SEC within 120 days after December 31, 2022 in connection with the solicitation of proxies for the Company's 2023 annual meeting of stockholders, and is incorporated herein by reference.

Item 11. Executive Compensation

The information required by this Item will be included in the Company's Proxy Statement to be filed with the SEC within 120 days after December 31, 2022, and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owner and Management and Related Stockholder Matters

The information required by this Item will be included in the Company's Proxy Statement to be filed with the SEC within 120 days after December 31, 2022, and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item will be included in the Company's Proxy Statement to be filed with the SEC within 120 days after December 31, 2022, and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required by this Item will be included in the Company's Proxy Statement to be filed with the SEC within 120 days after December 31, 2022, and is incorporated herein by reference.

Part IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) The financial statements filed as part of this Annual Report are listed in Item 8 of this Annual Report

(a)(2) No financial statement schedules are required to be filed as part of this Annual Report because all such schedules have been omitted. Such omission has been made on the basis that information provided in the financial statements, or in the related notes thereto, in Item 8 of this Annual Report or is not required to be filed as the information is not applicable.

(a)(3) The exhibits listed on the Exhibit Index to this Annual Report are incorporated herein by reference.

Exhibit Index

		Incorporated by Reference			
Exhibit Number	Description of Document	Schedule/ Form	File Number	Exhibit Number	Filing Date
3.1	Amended and Restated Bylaws of Energy Vault Holdings, Inc.	8-K	001-39982	3.1	February 14, 2022
3.2	Amended and Restated Certificate of Incorporation of Energy Vault Holdings, Inc.	8-K	001-39982	3.2	February 14, 2022
10.1	Amended and Restated Registration Rights Agreement, by and among the Company and certain stockholders and equity-holders of the Company	8-K	001-39982	10.2	February 14, 2022
10.2	Sponsor Restricted Stock Agreement by and among Novus, Novus Initial Stockholders, and Energy Vault	8-K	001-39982	10.5	February 14, 2022
10.3#	Offer Letter, dated May 16, 2022, by and between Energy Vault Holdings, Inc. and Josh McMorrow	10-Q	001-39982	10.7	May 16, 2022
10.4#	Offer Letter, dated November 11, 2022, by and between Energy Vault Holdings, Inc. and Robert Piconi	10-Q	001-39982	10.1	November 14, 2022
10.5#	Offer Letter, dated November 14, 2022, by and between Energy Vault Holdings, Inc. and Jan Kees Van Gaalen	10-Q	001-39982	10.2	November 14, 2022
10.6#	Offer Letter, dated November 10, 2022, by and between Energy Vault Holdings, Inc. and Energy Terruzzin	10-Q	001-39982	10.3	November 14, 2022
10.7#	Amendment to the Energy Storage System Agreement by and between DG Fuels LLC and Energy Vault Inc., dated as of May 10, 2022	10-Q	001-39982	10.6	May 16, 2022
10.8#	Energy Vault Holdings, Inc. 2022 Equity Incentive Plan	10-Q	001-39982	10.4	May 16, 2022
10.9#	2022 Employment Inducement Award Plan	10-Q	001-39982	10.5	November 14, 2022
10.10#	Form of Stock Option Grant Notice and Stock Option Agreement under the 2022 Employment Inducement Award Plan	10-Q	001-39982	10.6	November 14, 2022
10.11#	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2022 Employment Inducement Award Plan	10-Q	001-39982	10.7	November 14, 2022
10.12#	Form of Stock Option Grant Notice and Stock Option Agreement under the 2022 Equity Incentive Plan	10-Q	001-39982	10.8	November 14, 2022
10.13#	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2022 Equity Incentive Plan	10-Q	001-39982	10.9	November 14, 2022
10.14**	Non-Employee Director Compensation Policy				

Exhibit Number	Description of Document	Incorporated by Reference			
		Schedule/ Form	File Number	Exhibit Number	Filing Date
21.1**	List of Subsidiaries of Energy Vault Holdings, Inc.				
23.1**	Consent of Independent Registered Public Company Accounting Firm				
31.1**	Certification of Principal Executive Officer required under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended				
31.2**	Certification of Chief Financial Officer required under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended				
32.1**	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
101.INS**	XBRL Instance Document				
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document				
101.SCH**	XBRL Taxonomy Extension Schema Document				
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB**	XBRL Taxonomy Extension Labels Linkbase Document				
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document				
104**	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)				

# Indicates management contract or compensatory plan or arrangement.

** Filed herewith

^ The certifications attached as Exhibit 32.1 and 32.2 that accompany this Annual Report on Form 10-K are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filings of Energy Vault Holdings, 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 of this Annual Report on Form 10-K, irrespective of any general incorporation language contained in such filing.

Item 16. Form 10-K Summary

None.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Energy Vault Holdings, Inc.

Date: April 12, 2023

By: /s/ Jan Kees van Gaalen
Name: Jan Kees van Gaalen
Title: Chief Financial Officer

Pursuant to the requirements of the Securities Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Date: April 12, 2023	By:	/s/ Robert Piconi
		Name: Robert Piconi
		Title: Chief Executive Officer (Principal Executive Officer)
Date: April 12, 2023	By:	/s/ Jan Kees van Gaalen
		Name: Jan Kees van Gaalen
		Title: Chief Financial Officer (Principal Financial and Accounting Officer)
Date: April 12, 2023	By:	/s/ Larry M. Paulson
		Name: Larry M. Paulson
		Title: Director
Date: April 12, 2023	By:	/s/ Theresa Fariello
		Name: Theresa Fariello
		Title: Director
Date: April 12, 2023	By:	/s/ Bill Gross
		Name: Bill Gross
		Title: Director
Date: April 12, 2023	By:	/s/ Zia Huque
		Name: Zia Huque
		Title: Director
Date: April 12, 2023	By:	/s/ Thomas Ertel
		Name: Thomas Ertel
		Title: Director
Date: April 12, 2023	By:	/s/ Mary Beth Mandanas
		Name: Mary Beth Mandanas
		Title: Director

Exhibit 10.14

Energy Vault Holdings, Inc.
Compensation Program for Non-Executive Directors

(as amended and restated, effective April 10, 2023)

Non-employee members of the Board of Directors ("Board") of Energy Vault Holdings, Inc. (the "***Company***") shall receive cash and equity compensation as set forth in this Non-Executive Director Compensation Program (this "***Program***"). The cash and equity compensation described in this Program shall be paid or be made, as applicable, automatically and without further action of the Board, to each Non-Employee Director ("Director") who is entitled to receive such cash or equity compensation, unless such Director declines the receipt of such cash or equity compensation by written notice to the Company.

I. Cash Compensation

A. Cash Retainer. Each Director will receive an annual cash retainer for their service on the Board equal to $75,000 (the "***Cash Retainer***").

1. The Cash Retainer shall be paid quarterly in arrears not later than the fifteenth (15th) day following the end of each fiscal quarter for the first, second and third fiscal quarters. The Cash Retainer for the fourth fiscal quarter shall be paid not later than the fifteenth (15th) day of the last month prior to the end of the fourth fiscal quarter. For the avoidance of doubt, Cash Retainers will be paid not later than the fifteenth (15th) day of April, July, October and December unless that day is not a business day, in such case the Cash Retainer will be paid on the next succeeding business day.

2. In the event a Director does not serve as a Director for an entire calendar quarter, the Cash Retainer paid to such Director shall be prorated for the portion of such calendar quarter actually served as a Director.

B. Expense Reimbursements. Upon submission of appropriate documentation, Directors will be reimbursed for reasonable expenses, including hotel accommodations and airline tickets with a maximum fare of first class, that are incurred in connection with attendance at meetings of the Board and its committees.

II. Equity Compensation

A. General. Each Director shall be granted Restricted Stock Units (as defined in the Company's 2022 Equity Incentive Plan or any other applicable Company equity incentive plan then-maintained by the Company (in each case, as it may be amended and/or restated from time to time) ("Equity Plan") (each, an "*RSU Award*") as set forth in this Program. The Restricted Stock Units shall be granted under and subject to the terms and provisions of the Equity Plan and an award agreement thereunder.

B. Amounts. Each RSU Award shall be granted in the following amounts:

Initial RSU Award: ***Committee Chairs***	A number of Restricted Stock Units (rounded down to the nearest whole number) equal to $215,000 divided by the Reference Price. [1]
Initial RSU Award: ***Non-Employee Directors other than Committee Chairs***	A number of Restricted Stock Units (rounded down to the nearest whole number) equal to $200,000 divided by the Reference Price.
Subsequent RSU Award: ***Committee Chairs***	A number of Restricted Stock Units (rounded down to the nearest whole number) equal to $115,000 divided by the Reference Price.
Subsequent RSU Award: ***Non-Employee Directors other than Committee Chairs***	A number of Restricted Stock Units (rounded down to the nearest whole number) equal to $100,000 divided by the Reference Price.

C. Initial RSU Awards. Each Director who is initially elected or appointed to the Board shall receive the Initial RSU Award as soon as practicable following his or her election or appointment to the Board. No Director shall be granted more than one Initial RSU Award.

D. Subsequent RSU Awards.

1. Grant. A Director who (i) has been serving as a Director on the Board as of the date of any regular annual meeting of the Company's stockholders ("Annual Meeting") and (ii) will continue to serve as a Director immediately following such meeting, shall be automatically granted a Subsequent RSU Award on the date of such Annual Meeting. For the avoidance of doubt, a Director elected for the first time to the Board at an Annual Meeting but not otherwise previously appointed shall only receive an Initial RSU Award in connection with such election and shall not receive any Subsequent RSU Award on the date of such meeting as well.

2. Partial Years of Service. To the extent a Director has served on the Board for less than one year as of the date of an Annual Meeting, the Subsequent RSU Award will be prorated by multiplying the applicable number of Restricted Stock Units by a fraction, the numerator of which is the number of calendar days during the immediately preceding year that the Director served on the Board and the denominator of which is 365.

[1] "***Reference Price***" shall mean the average closing price of one share of the Company's common stock as reported on the New York Stock Exchange during the full fiscal quarter immediately ending on or prior to the date of grant.

E. Termination of Employment of Employee Directors. Members of the Board who are employees of the Company or any parent or subsidiary of the Company who subsequently terminate their employment with the Company and any parent or subsidiary of the Company and remain on the Board will not receive an Initial RSU Award, but to the extent that they are otherwise entitled, will receive, after termination of employment with the Company and any parent or subsidiary of the Company, a Subsequent RSU Award.

F. Vesting of RSUs Granted to Directors.

1. Initial RSU Awards. Each Initial RSU Award shall vest in substantially equal installments on each of the first three (3) anniversaries of the effective date of grant, such that the Initial RSU Award shall be fully vested on the third (3rd) anniversary of the effective date of grant, subject to the Director's continued service on the Board through each such vesting date; provided, that, any portion of the Initial RSU Award that would otherwise vest as to a fractional amount will not vest until the fractional portions become a whole.

2. Subsequent RSU Awards. Each Subsequent RSU Award shall vest in a single installment on the earlier of (i) the date of the next Annual Meeting occurring after the date of grant or (ii) the first anniversary of the date of grant, subject to the Director's continued service on the Board through such vesting date.

3. Forfeiture of RSU Awards; Change in Control Vesting. Unless the Administrator (as defined in the Equity Plan) otherwise determines, any portion of an RSU Award which is unvested at the time of a Director's termination of service on the Board as a Director shall be immediately forfeited upon such termination of service and shall not thereafter become vested. All of a Director's outstanding RSU Awards shall vest in full immediately prior to the occurrence of a Change in Control (as defined in the Equity Plan), subject to the Director's continued service on the Board through the occurrence of the Change in Control.

4. Settlement. Each RSU will be settled by issuing one share of the Company's common stock upon vesting unless a deferral program is implemented.

C. Miscellaneous

1. Effective Date. This Program amends and restates the Company's Compensation Program for Directors that was effective as of the original effective date in connection with the closing of the business combination between Energy Vault, Inc. and the Company (f/k/a Novus Capital Corporation II).

2. Stock Ownership. Directors are expected to have an equity ownership interest equal to four times the annual cash retainer for Board service. Directors are expected to comply with this guideline within five years of becoming subject to the guideline.

3. Other Terms. This Program shall remain in effect until it is revised or rescinded by further action of the Board. This Program may be amended, modified or terminated by the Board at any time in its sole discretion. The terms and conditions of this Program shall supersede any prior cash and/or equity compensation arrangements for service as a member of the Board between the Company and any of its Directors, except for equity compensation previously granted to a Director.

* * * * *

Exhibit 21.1

List of 100% Owned Subsidiaries as of December 31, 2022

Name of Subsidiary	Country of Incorporation
Energy Vault, Inc.	United States (Delaware)
Calistoga Resiliency Center, LLC	United States (Delaware)
Energy Vault SA	Switzerland
Energy Vault Pty Ltd	Australia

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULES 13a-14(a) AND 15d-14(a)
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES OXLEY ACT of 2002

I, Robert Piconi, certify that:

1. I have reviewed this annual report on Form 10-K of Energy Vault Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 12, 2023

Signature:	*/s/ Robert Piconi*
Title:	Co-Founder and Chief Executive Officer (Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULES 13a-14(a) AND 15d-14(a)
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES OXLEY ACT of 2002

I, Jan Kees van Gaalen, certify that:

1. I have reviewed this annual report on Form 10-K of Energy Vault Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 12, 2023

Signature:	*/s/ Jan Kees van Gaalen*
Title:	Chief Financial Officer (Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

I, Robert Piconi, Chief Executive Officer of Energy Vault Holdings, Inc. (the “Company”), certify pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. This Annual Report on Form 10-K of the Company for the year ended December 31, 2022 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

2. The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company, at the dates and for the periods presented in the financial statements included in this Report.

Date: April 12, 2023

Signature:	*/s/ Robert Piconi*
Title:	Co-Founder and Chief Executive Officer (Principal Executive Officer)

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

I, Jan Kees van Gaalen, Chief Financial Officer of Energy Vault Holdings, Inc. (the "Company"), certify pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. This Annual Report on Form 10-K of the Company for the year ended December 31, 2022 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

2. The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company, at the dates and for the periods presented in the financial statements included in this Report.

Date: April 12, 2023

Signature:	*/s/ Jan Kees van Gaalen*
Title:	Chief Financial Officer (Principal Financial Officer)

Directors and Executive Officers of Energy Vault Holdings, Inc.

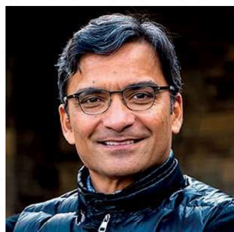
Directors

Robert Piconi
Co-founder and Chief Executive Officer of Energy Vault, Inc.

Larry M. Paulson
Managing member of Novus Capital Associates, LLC

Theresa Fariello
Senior Vice President of Government Affairs & Global Public Policy for United Airlines

Bill Gross
Chairman of Idealab



Zia Huque
General Partner for Prime Movers Lab LLC

Thomas Ertel
Senior Vice President and Chief Accounting Officer of Strada Education Network

Mary Beth Mandanas
Chief Executive Officer at Onyx Renewable Partners L.P.

Executive Officers

Robert Piconi
Chief Executive Officer and Director

Jan Kees van Gaalen
Chief Financial Officer

Andrea Pedretti
Chief Technology Officer

Josh McMorrow
Chief Legal Officer

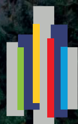
Christopher K. Wiese
Chief Operating Officer

Marco Terruzzin
Chief Product Officer

Goncagul İçören
Chief People Officer

John Jung
President of Energy Vault Solutions

Laurence Alexander
Chief Marketing Officer



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