SHOALS TECHNOLOGIES GROUP, INC.

2023 Annual Report

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2023

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: 001-39942

Shoals Technologies Group, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**85-3774438**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1400 Shoals Way	**Portland**	**Tennessee**	**37148**
(Address of principal executive offices)			(Zip Code)

(Registrant's telephone number, including area code) **(615) 451-1400**

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, $0.00001 Par Value	**SHLS**	**Nasdaq Global Market**

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☒ Yes ☐ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☒ No

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

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

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

Large accelerated filer	☒	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 of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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

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

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the Registrant, as of June 30, 2023, the last business day of the Registrant's most recently completed second fiscal quarter, was approximately $3.8 billion. Solely for purposes of this disclosure, shares of common stock held by executive officers, directors and by each person who owns 10% or more of the outstanding common stock as of such date have been excluded because such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 26, 2024, the registrant had 170,329,509 shares of Class A common stock and zero shares of Class B common stock issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission, or SEC, subsequent to the date hereof pursuant to Regulation 14A in connection with the registrant's 2024 Annual Meeting of Stockholders, are incorporated by reference into Part III of this Annual Report on Form 10-K. We intend to file such proxy statement with the SEC not later than 120 days after the conclusion of the registrant's fiscal year ended December 31, 2023.

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PART I

Item 1. Business

Shoals Technologies Group, Inc. is a Delaware corporation. Unless the context otherwise requires, references to “we,” “us,” “our,” “Shoals,” the “Corporation,” the “Company” and other similar references refer to Shoals Technologies Group, Inc. and, unless otherwise stated, all of its consolidated subsidiaries.

As more fully described below, during 2023, the Company simplified its corporate structure by, among other things, eliminating the umbrella-partnership C corporation structure (“Up-C structure”) that was in place since its initial public offering (“IPO”). The Company completed its IPO on January 29, 2021, and since then, its Class A common stock trades on the Nasdaq Global Market under the symbol “SHLS.”

Elimination of Up-C Structure and Entity Simplification

In the first quarter of 2023, following a secondary offering of shares of Class A common stock by certain selling shareholders, all the holders of limited liability interests of Shoals Parent LLC (“LLC Interests”), our former operating subsidiary, exchanged all the LLC Interests and corresponding shares of Class B common stock of the Company beneficially owned by them into shares of Class A common stock of the Company. As a result, upon effectiveness of such exchanges, all of the LLC Interests in Shoals Parent LLC were held by the Company, no other holders owned LLC Interests and no Class B common stock was or is outstanding.

On July 1, 2023, the Company contributed 100% of its LLC Interests to Shoals Intermediate Parent, Inc. (“Shoals Intermediate Parent”), a wholly-owned subsidiary of the Company. Following the contribution, Shoals Parent LLC became a disregarded single member limited liability company, eliminating the Company’s Up-C structure.

Following the elimination of the Up-C structure, effective December 31, 2023, the Company consummated an internal reorganization transaction whereby certain of the Company’s wholly-owned subsidiaries merged with and into other subsidiaries. As part of this reorganization, Shoals Parent LLC merged with and into Shoals Intermediate Parent, with Shoals Intermediate Parent as the surviving corporation.

Overview

Shoals is a leading provider of electrical balance of system (“EBOS”) solutions and components for solar, battery storage and electric vehicle (“EV”) charging applications, selling to customers primarily in the United States (“U.S.”) as well as internationally. EBOS encompasses all of the components that are necessary to carry the electric current produced by solar panels to an inverter and ultimately to the power grid. EBOS components are mission-critical products that have a high consequence of failure, including lost revenue, equipment damage, fire damage, and even serious injury or death. As a result, we generally believe customers prioritize reliability and safety over price when selecting EBOS solutions.

EBOS components that we produce include cable assemblies, inline fuses, combiners, disconnects, recombiners, wireless monitoring systems, junction boxes, transition enclosures, splice boxes and battery energy storage systems (“BESS”) cabinets. We derive the majority of our revenue from selling “system solutions” which are complete EBOS systems that include several of our components, many of which are customized for the customer’s project. We believe our system solutions are unique in our industry because they integrate design and engineering support, proprietary components and innovative installation methods into a single offering that would otherwise be challenging for a customer to obtain from a single provider or at all.

We sell our solar products principally to engineering, procurement and construction firms (“EPCs”) that build solar energy projects. However, given the mission critical nature of EBOS, the decision to use our products typically involves input from both the EPC and the owner of the solar energy project. The custom nature of our system solutions and the long development cycle for solar energy projects typically gives us 12 months or more of lead time to quote, engineer, produce and ship each order we receive, and we do not stock large amounts of finished goods.

Throughout fiscal year 2023, we have maintained focus on our growth strategy and continued strengthening our leadership position in the industry. We believe that as of December 31, 2023, we have worked with 13 of the top 15 solar EPCs, per Wood Mackenzie data from 2019-2023, and 11 of those EPCs used our combine-as-you-go system on their projects.

We derived approximately 81.5% of our revenue from the sale of system solutions for year ended December 31, 2023. For the same period, we derived substantially all of our revenue from customers in the U.S. As of December 31, 2023, we had $631.3 million of backlog and awarded orders. Backlog of $205.8 million represents signed purchase orders or contractual minimum purchase commitments with take-or-pay provisions and awarded orders of $425.5 million are orders we are in the process of documenting a contract but for which a contract has not yet been signed. As of December 31, 2023, we believe approximately $205.8 million of backlog and $250.0 million of awarded orders have delivery dates in 2024. The remaining $175.5 million have planned delivery dates beyond 2024. Additionally, we believe more than 13% of our December 31, 2023 backlog and awarded orders relate to international projects. As of December 31, 2023, backlog and awarded orders increased by 47% relative to December 31, 2022 and decreased by 0.3% relative to September 30, 2023.

Our Proprietary EBOS System

Historically, most solar energy projects used a wiring architecture known as “homerun”. Conventional homerun EBOS systems have two distinguishing characteristics: every string of solar panels in the project is connected to a combiner box with individual positive and negative “wire runs,” and connections between wires are made using a process called “crimping”. The combiner box functions as a central point to “combine” the individual wire runs into a single feeder cable and contains fuses to protect each circuit. Making each wire run from the strings to the combiner boxes is a laborious process. Each wire run must be measured, laid out and fished through conduits that are buried in trenches across the project site. Because each string is individually connected to a combiner box, the same distances are covered with multiple wire runs. Making the crimped connections between wires and interconnecting them in the combiner box is a complex, error prone process that requires special tools. Each wire must be cut and have a precise amount of insulation removed; the bare end must be inserted the correct depth into a terminal; and special tools must be used to deform metal sleeves and torque lock nuts to ensure an environmental seal. The entire installation must be performed by licensed electricians with special training and any mistake in the process can result in a catastrophic system failure.

We invented an alternative to homerun architecture which we refer to as “combine-as-you-go”. Rather than making individual wire runs from each string to combiner boxes, combine-as-you-go architecture connects multiple strings within each row using specialized wire harnesses with integrated fuses that we refer to as “interconnect harnesses”. The interconnect harnesses are then connected to a proprietary above ground feeder cable that we refer to as the Big Lead Assembly (“BLA”). The BLA is our core combine-as-you-go product. The direct connection between the interconnect harness and the BLA and the integration of fuses into the interconnect harness dramatically reduce the number of wire runs required compared to a conventional homerun system and eliminate the need for combiner boxes. We believe our combine-as-you-go architecture using interconnect harnesses and BLA has several advantages when compared to conventional homerun EBOS, including:

- **Installing above ground.** Wiring for conventional homerun systems is typically run through conduits that are buried in trenches. Trenching is costly and time consuming. Making repairs to buried wire can also be challenging and expensive, as well as run the risk of unintentionally damaging other buried wire that did not need to be repaired. Our BLA is hung from the mounting system used for the solar panels, enabling above ground installation. Above ground installation is less costly and far faster than burying wire in conduits. Future maintenance is also significantly easier and less costly because our BLA is easily accessible if repairs are required.

- **Being installable by general labor rather than requiring electricians.** Conventional homerun systems use crimps and other specialized procedures to connect wires and install combiner boxes that must be performed by licensed electricians. Because our interconnect harness and BLA use simple push connectors and don't require combiner boxes, licensed electricians are not needed to install the system.
- **Reducing the number of wire runs**. We believe using our interconnect harness and BLA reduces the number of string and inverter wire runs required for a typical utility-scale solar energy project by up to 95% when compared to a conventional homerun system. Reducing the number of wire runs speeds installation, lowers material and shipping costs, reduces the number of potential failure points and is beneficial to the environment because less copper, aluminum and plastics are consumed.
- **Eliminating combiner boxes**. Conventional homerun systems require combiner boxes to interconnect the wire runs from each string into a feeder cable and house fuses that protect each circuit. Because our BLA is connected directly to strings and our interconnect harness has inline fuses, no combiner boxes are required for our system. Eliminating combiner boxes speeds installation, lowers material and shipping costs, reduces the number of potential failure points and is beneficial to the environment because less copper, aluminum and plastics are consumed.
- **Requiring fewer connections.** We believe using our interconnect harness and BLA reduces the number of connection points in a typical utility-scale solar energy project by more than 80% when compared to a conventional homerun system. Requiring fewer connections reduces the number of labor hours required to install the system as well as the number of potential failure points.
- **Having greater reliability and lower maintenance costs.** Connection points are often the source of failure in EBOS systems and must be inspected regularly. A solar energy project that uses our interconnect harness and BLA will have significantly fewer connections and, as a result, fewer failure points to inspect and maintain than the same project would using a conventional homerun system. We believe fewer potential failure points contributes to higher reliability and lower maintenance costs for solar energy projects that use our combine-as-you-go system when compared to a conventional homerun system.
- **Enabling more energy generation.** We believe the design of our interconnect harness and BLA reduces electrical resistance significantly when compared to a conventional homerun system. Lower resistance reduces energy loss to waste heat dissipation, which we believe results in greater energy generation from solar projects that use our combine-as-you-go system when compared to a conventional homerun system.

Together, we believe these advantages result in lower installation costs and lower material costs for our combine-as-you-go systems when compared to conventional homerun systems.

Products and Services

System Solutions

We refer to complete EBOS systems that use multiple components produced by us as "system solutions". When we sell a system solution, we work with our customers to design, specify and customize their EBOS system to maximize reliability and energy production while minimizing cost. We also provide technical support during installation and the transition to operations and maintenance.

We design, manufacture and sell system solutions for the two types of wiring architectures used by the U.S. solar industry: homerun and combine-as-you-go.

Homerun EBOS: We have developed a proprietary EBOS solution for homerun architectures that we refer to as an "interconnect harness". Rather than the traditional approach of running a separate wire from each string to a combiner box, our interconnect harness connects multiple strings together at each row using a single wire and simple push connector, rather than a wire crimp. Combining multiple strings together at each row reduces the number of wire runs that have to be made to combiner boxes as well as the number of connections that have to be made in each combiner box which reduces either the total number of combiner boxes or the size of combiner boxes required for the system. Using push connectors allows a large portion of the EBOS installation to be completed by general laborers rather than requiring licensed electricians. Our homerun EBOS system solutions typically include our interconnect harness, combiners and jumpers. The majority of solar energy projects in operation today use conventional homerun architecture.

Combine-as-you-go EBOS: We invented "combine-as-you-go" architecture in 2014 and began offering combine-as-you-go products widely in 2017. Combine-as-you-go architecture connects all strings in a project to "trunk" wires that feed directly into disconnect boxes, which are connected to the inverter. With our interconnect harness, BLA combines the functionality of cable assemblies, combiner boxes and fusing all into one product that does not require a licensed electrician to install. A combine-as-you-go architecture using BLA has significant advantages over traditional homerun architectures, including using less material, requiring fewer man hours to install and having greater reliability and ease of maintenance. Our combine-as-you-go EBOS system solutions typically include our interconnect harness, BLA and disconnects and, in some projects, transition enclosures and splice boxes.

eMobility solutions: During 2021, we introduced four new product families for the EV charging market and began taking orders and shipping some component products in 2022. Order flow and deliveries of our EV system solution continued through 2023 with scaled production underway. The first offering within the eMobility product family is the power center which combines equipment needed to protect the charging equipment and transform voltage levels from the electric utility to those needed on the respective site. The power center provides an efficient, cost effective and aesthetically focused option versus traditional methods. The second offering focuses on quick connect solutions for chargers made by any manufacturer and any power level to connect to the Shoals system. The quick connect bases dramatically reduce the time required on site for a deployment and reduce the amount of labor required in the field. The third offering uses our BLA technology in the EV space to connect multiple chargers to a single power center. This solution eliminates the need for homeruns from each dispenser and is above ground rated which allows wire to be run above ground rather than in underground conduit. The fourth offering is a raceway system that protects the above ground EV BLAs in walk over and drive over applications. The raceway system coupled with the EV BLA deploys much more rapidly and cost effectively than traditional methods of deployment.

Solar operations and maintenance ("O&M") offerings: During the third quarter of 2023, we introduced our first solar O&M product offering called Snapshot IV. This solution monitors the specific voltage and current of individual solar panels and compares the results against manufacturer's claimed/projected performance. This information will provide O&M teams and owners with a more advanced level of detail than other competing alternatives, with respect to the panel's performance.

We derived approximately 81.5% of our revenue for the year ended December 31, 2023 from the sale of system solutions.

Components

We design, manufacture and sell a variety of individual EBOS and other components used by the solar, battery storage, or EV charging applications and industries, including:

Combiners: Enclosures that interconnect wire runs from multiple solar panel strings together so that their current can be fed into a single large cable.

Plug-n-play branch connectors and inline fuses: Plug-n-play connectors for small commercial and rooftop solar applications in inline fuse, fuse-T, dual inline fuse, T-shaped, X-shaped, Y-shaped and U-shaped configurations.

AC disconnects: Specialized switches that allow the inverter to be isolated from the grid to enable repairs or in cases of emergency.

Recombiners: Enclosures that interconnect feeders from several combiner boxes into a smaller number of cables that run to the inverter.

Wireless monitoring: Specialized devices that monitor current, voltage, temperature, tracker rotation and other performance characteristics.

Junction boxes: Electromechanical interface that provides connection points to collect power from a solar panel.

Wire management: A system to secure photovoltaic ("PV") wiring for safety and aesthetic purposes.

EV power cabinets: enclosures that provide power conversion and protection for EV power systems.

BESS cabinets: enclosures which contain batteries for utility scale BESS or EV charging sites which require BESS.

We derived approximately 18.5% of our revenue for the year ended December 31, 2023, from the sale of components.

Sales and Marketing Strategy

Our sales and marketing strategy is to build product awareness and foster long-term relationships with all key stakeholders that are involved in the lifecycle of a PV, BESS, eMobility, or O&M project.

We educate these stakeholders on the value proposition of our solutions which lower installation costs, provide greater reliability, and lower maintenance costs through a variety of marketing strategies which include direct marketing campaigns, white papers, independent third-party studies, training seminars, and participating in industry conferences and events. We sell components and system solutions both on a project-to-project basis or through master supply agreements that support a portfolio of projects.

Our sales process is a highly consultative approach that involves working with developers, engineers, EPC's, subcontractors, and O&M firms. We work collaboratively to understand the complexities and goals of each project with all stakeholders involved to ensure continuity throughout the decision-making process. This involves us collaborating on site design, product selection, value engineering and optimization. Our project management team supports the process after a sale is completed by providing the customer submittals for approval, real-time shipping information, and any additional items that may be needed to complete the installation and commissioning. Our customer care team engages once a site is fully commissioned for any further technical support that may be required for the life of the project. We believe that our consultative top-down and bottoms-up approach fosters brand loyalty with all stakeholders and results in retention of our customers.

We have three manufacturing facilities located in Tennessee, one in Alabama, and one in California. We have national sales leaders in the United States that are supported with engineering staff in Tennessee and California. From an international standpoint, we have sales personnel located in Spain and Australia. Our team in Spain services Europe, Latin-America, and Africa regions while our personnel in Australia supports Asia-Pacific. These sales representatives are supported with our engineering team in the United States to ensure that we are in compliance with local codes and regulations.

Our Customers

We sell our products principally to EPCs that build solar energy projects. The decision to use our products typically involves input from both the EPC and the owner of the solar energy project given the mission critical nature and high consequence of failure of EBOS. EPCs typically construct multiple projects for several different owners.

For the year ended December 31, 2023, our largest customer contributed approximately 36.3% of our total revenue and was the only customer contributing 10% or greater of total revenue.

Competition

Our EBOS system solutions and components are highly specialized products that are specific to the solar industry. The unique expertise required to design EBOS systems and components as well as customers' reluctance to try unproven products has confined the number of firms that produce such EBOS products to a relatively small number. Our principal competitors include TerraSmart, LLC (formerly SolarBOS, Inc.), Bentek Corporation, Voltage, LLC and Hikam America, Inc. We compete on the basis of product performance and features, installation cost, reliability and duration of product warranty, sales and distribution capabilities, and training and customer support, as well as the ability to provide system solutions rather than individual components. We believe we are significantly larger as measured by revenue than our next largest competitor.

Seasonality

We have experienced seasonal and quarterly fluctuations in the past as a result of seasonal fluctuations in our customers' business. Our end users' ability to install solar energy systems is affected by weather, as for example during the winter months in the northeastern U.S. Such installation delays can impact the timing of orders for our products.

Manufacturing

We have developed a proprietary manufacturing process for our EBOS products that we believe is unique in our industry. Our process uses specialized manufacturing equipment that we have developed and involves joining wire together using resistance welds and then sealing the joint with two separate layers of insulating material, which we refer to as "undermold/overmold". Resistance welding produces significantly stronger bonds than competing techniques used by our competitors. Specifying complementary materials for the undermold and overmold significantly reduces the risk of moisture infiltrating the connection and enables us to provide superior ultraviolet ("UV") protection, strain relief, impact resistance, and thermal stability over a wide range of environmental conditions. Together, we believe these techniques substantially reduce the risk that our cable develops a fault over its lifetime.

While highly specialized and flexible, our manufacturing equipment is not costly, and we believe we do not require significant capital expenditures to maintain or increase our manufacturing capacity.

Our principal manufacturing facilities are located in Tennessee, Alabama, and California. Our Alabama facility is ISO 9001:2015 certified.

Research and Development

We continually devote resources to research and development ("R&D"), with the objective of developing innovative new products that reduce the cost and improve the reliability and safety of renewable energy. We believe that we have developed and commercialized most of the new EBOS products and installation methods adopted by the U.S. solar industry over the past five years, including plug-n-play wiring, interconnect harnesses and combine-as-you-go architecture for solar energy projects.

Our development strategy is to identify features that bring value to our customers and differentiate us from our competitors. We measure the effectiveness of our R&D using a number of metrics, beginning with a market requirements definition, which includes a program budget, financial payback, resource requirements, and time required to launch the new product, system, or service into the market. We employ a stringent engineering phase gate review process that ensures all R&D programs are meeting their stated objectives from inception to deployment.

We have a strong R&D team with significant experience in solar energy as well as expertise in electrical engineering, systems/control engineering and power electronics. As needed, we collaborate with academia, national laboratories, and consultants to further enhance our capabilities and confirm results independently.

Intellectual Property

The success of our business depends, in part, on our ability to maintain and protect our proprietary technologies, information, processes and know-how. We rely primarily on patent, trademark, copyright and trade secret laws in the U.S., confidentiality agreements and procedures and other contractual arrangements to protect our technology. As of December 31, 2023, we had 26 U.S. trademark registrations, 5 pending U.S. trademark applications, 19 issued U.S. patents, 16 issued non-U.S. patents, 33 patent application pending for examination in the U.S. and 154 domain name registrations. Many of our patents relate to more efficient electrical wiring and power transmission from solar panels to power inverters at solar installations. Our U.S. issued patents are scheduled to expire between 2031 and 2037. As of December 31, 2023, our issued U.S. patents had an average remaining life of approximately 11.0 years.

The term of individual patents extend for varying periods of time, depending upon the date of filing of the patent application, the date of patent issuance, and the legal term of patents in the countries in which they are obtained. Generally, patents issued for applications filed in the U.S. are effective for 20 years from the earliest effective filing date of a non-provisional patent application. The duration of patents outside of the U.S. varies in accordance with provisions of applicable local law, but typically is also 20 years from the earliest effective filing date. However, the actual protection afforded by a patent varies on a country-to-country basis and depends upon many factors, including the type of patent, the scope of its coverage, the availability of legal remedies in a particular country, and the validity and enforceability of the patent.

We rely on trade secret protection and confidentiality agreements to safeguard our interests with respect to proprietary know-how that is not patentable and processes for which patents are difficult to enforce. We believe that many elements of our manufacturing processes involve proprietary know-how, technology or data that are not covered by patents or patent applications, including technical processes, test equipment designs, algorithms and procedures.

Our policy is to require research and development employees to enter into confidentiality and proprietary information agreements with us to address intellectual property protection issues and to assign to us all of the inventions, designs and technologies they develop during the course of employment with us. However, we might not have entered into such agreements with all applicable personnel, and such agreements might not be self-executing. Moreover, such individuals could breach the terms of such agreements.

We also require our customers and business partners to enter into confidentiality agreements before we disclose any sensitive aspects of our technology or business plans.

Our Human Capital

As of December 31, 2023, we had approximately 1,309 full-time and temporary employees. The vast majority of our employees are located in the United States.

We foster a collaborative, team-oriented culture that values open communication and candor among all our employees. We consider these elements crucial to our pursuit of operational excellence and lead to success. We actively seek individuals who share our passion, dedication and entrepreneurial mind set to contribute to a dynamic work environment.

We also encourage our employees to operate by a common set of principles, which includes:

- Responsibility – We integrate quality and safety into everything;
- Integrity – We do the right thing, in the right way, for the right reason;
- Agility – We are quick and flexible at our core;
- Innovation – We lead from the front by simplifying the complex;
- Dedication – We hold ourselves accountable and we never quit; and
- Commitment – We care for people and the planet by investing locally and globally.

We believe that operating with purpose, passion and creativity benefits our customers, stockholders, employees, and suppliers as well as the communities where we operate and the environment.

None of our employees are represented by a labor union. We have not experienced any employment-related work stoppages, and we consider relations with our employees to be good.

Diversity and Inclusion

We are steadfast in our commitment to diversity, equity and inclusion, recognizing its pivotal role in driving positive outcomes for our business and enables us to better meet the needs of our customers. We believe that diversity is the range of our human differences, including but not limited to race, ethnicity, gender, gender identity, sexual orientation, age, economic status, physical and mental ability, religious or ethical values system, national origin, and political beliefs. Our goal is to cultivate a workplace where everyone feels welcomed, valued, treated equitably and respected.

We continue to increase our outreach, recruitment, hiring, and retention of diverse groups at all levels of our workforce, including leadership roles. We also focus on listening, learning, and responding to our employees' concerns to help ensure that we can provide a diverse, equitable, and inclusive workplace today and into the future.

As of December 31, 2023, our full-time employee population, which was composed of 1,248 individuals, had the following diversity metrics:

- 62% of our full-time employee population self-identified as ethnically diverse;
- 45% of our full-time employee population self-identified as female; and
- Women made up 36% of our manager population, which consisted of 55 individuals with management responsibility.

As of December 31, 2023, of the 10 members of our executive management team, which includes the Chief Executive Officer and direct reports, Chief Revenue Officer, Chief Product Officer, and Senior VP of Business Development, two self-identify as ethnically diverse and one as female.

As of December 31, 2023, of the eight members of our board of directors, one self-identifies as ethnically diverse and two as female.

Employee Training and Development

We recognize the benefits that training can have on building and growing our workforce. We encourage our employees to participate in continuing education and to pursue professional certifications.

We encourage our leaders to provide continuous guidance and feedback to our employees. We believe it is the responsibility of every person in leadership – be it a Team Lead, Supervisor, or Manager – to serve as a resource and support for each of our team members.

Compensation and Benefits

We strive to provide a comprehensive suite of rewards and benefits. Our benefits program is designed to provide coverage for our employees' overall health and wellbeing. Our program includes medical and dental coverage, life, and disability insurance. We also offer retirement saving plans through our 401(k) plan, which is available to all full-time employees.

Health and Safety

The safety and wellbeing of our employees is at the forefront of everything we do. We strive to have a zero accident culture and our safety management system is built upon that principle. Our occupational health and safety program is designed to drive a proactive safety culture beginning with our management setting the tone for our safety culture and ensuring that everyone feels a sense of ownership for each other's safety and well-being.

We strive to have an interdependent safety culture where all employees feel responsible for each other's safety. This begins with our leadership setting the tone through effective communication of shared ownership, proactive approach to accident prevention and instilling a continuous improvement philosophy.

The key to preventing injuries begins with establishing the risk profile in our facilities through effective risk assessment and incident reporting and analysis processes. This process enables the organization to implement proactive safety measures, including ergonomic improvements, behavioral and unsafe condition audits, near miss reporting and assessments, as leading indicators towards our journey to zero accidents.

Available Information

Shoals files annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments of such reports with the Securities and Exchange Commission ("SEC"). Any document Shoals files may be inspected, without charge, at the SEC's website at http://www.sec.gov. In addition, through our corporate website at www.shoals.com, Shoals provides a hyperlink to a third-party SEC filing website which posts these filings as soon as reasonably practicable, where they can be reviewed without charge. The information found on our website is not a part of this Annual Report on Form 10-K or any other report we file with or furnish to the SEC.

FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to our management. Forward-looking statements include information concerning our possible or assumed future results of operations; business strategies; technology developments; financing and investment plans; warranty, litigation and liability accruals and estimates of loss or gains; litigation strategy and expected benefits or results from the current intellectual property and wire insulation shrinkback litigation; competitive position; industry and regulatory environment; potential growth opportunities, including international growth, production and capacity at our plants; and the effects of competition. Forward-looking statements include statements that are not historical facts and can be identified by terms such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "seek," "should," "will," "would" or similar expressions and the negatives of those terms.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that 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. Given these uncertainties, you should not place undue reliance on forward-looking statements. Also, forward-looking statements represent our management's beliefs and assumptions only as of the date of this report. You should read this report with the understanding that our actual future results may be materially different from what we expect.

Important factors that could cause actual results to differ materially from expectations are included in Item 1A "Risk Factors".

Except as required by law, we assume no obligation to update these forward-looking statements, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

Item 1A. Risk Factors

Summary Risk Factors

The following is a summary of the risks and uncertainties that could materially adversely affect our business, financial condition and results of operations. You should read this summary together with the more detailed description of each risk factor contained below.

- if demand for solar energy projects does not continue to grow or grows at a slower rate than we anticipate, we may not be able to achieve our anticipated level of growth and our business will suffer;
- if we fail to accurately estimate the potential losses related to the wire insulation shrinkback matter, or fail to recover the costs and expenses incurred by us from the supplier, our profit margins, financial results, business and prospects could be materially adversely impacted;
- defects or performance problems in our products or their parts, including those related to the wire insulation shrinkback matter, could result in loss of customers, reputational damage and decreased revenue, and may have a material adverse effect on our business, financial condition and results of operations;
- we may experience delays, disruptions, quality control or reputational problems in our manufacturing operations in part due to our vendor concentration;
- if we or our suppliers face disputes with labor unions, we may not be able to achieve our anticipated level of growth and our business could suffer;
- if we fail to retain our key personnel and attract additional qualified personnel, or successfully integrate our new Chief Executive Officer, our business strategy and prospects could suffer;
- our products are primarily manufactured and shipped from our production facilities in Tennessee, and any damage or disruption at these facilities may harm our business;
- the market for our products is competitive, and we may face increased competition as new and existing competitors introduce EBOS system solutions and components, which could negatively affect our results of operations and market share;
- current macroeconomic events, including high inflation, high interest rates, a potential recession and geopolitical instability could impact our business and financial results;
- our industry has historically been cyclical and experienced periodic downturns;
- the interruption of the flow of raw materials from international vendors has disrupted our supply chain, including as a result of the imposition of additional duties, tariffs and other charges on imports and exports;
- we are subject to risks associated with the patent infringement complaints that we filed with the U.S. International Trade Commission and two District Courts;
- if we fail to, or incur significant costs in order to, obtain, maintain, protect, defend or enforce our intellectual property and other proprietary rights, including those that are subject to the patent infringement complaints we filed with the ITC and two District Courts, our business and results of operations could be materially harmed;
- acquisitions, joint ventures and/or investments and the failure to integrate acquired businesses, could disrupt our business and/or dilute or adversely affect the price of our common stock;
- our future growth in the EV charging market is highly dependent on the demand for, and consumers' willingness to adopt, EVs, as well as on the actions of federal, foreign, state and local governments;

- 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 flow;
- a significant drop in the price of electricity sold may harm our business, financial condition, results of operations and prospects;
- a further increase in interest rates or a reduction in the availability of tax incentives or project debt capital in the global financial markets could make it difficult for end customers to finance the cost of a solar energy system and could reduce the demand for our products;
- failure to effectively utilize information technology systems or implement new technologies and the unauthorized disclosure of personal or sensitive data or confidential information, whether through a breach of our computer system or otherwise, could severely disrupt our business or reduce our sales or profitability;
- compromises, interruptions or shutdowns of our information technology systems, including those managed by third parties, whether intentional or inadvertent, could lead to delays in our business operations and, if significant or extreme, affect our results of operations;
- our expansion outside the U.S. could subject us to additional business, financial, regulatory and competitive risks;
- our indebtedness could adversely affect our financial flexibility and our competitive position;
- amounts included in our backlog and awarded orders may not result in actual revenue or translate into profits;
- existing electric utility industry, renewable energy and solar energy policies and regulations, and any subsequent changes, may present technical, regulatory and economic barriers to the purchase and use of solar energy systems that may significantly reduce demand for our products or harm our ability to compete;
- changes in the U.S. trade environment, including the imposition of trade restrictions, import tariffs, anti-dumping and countervailing duties could adversely affect the amount or timing of our revenue, results of operations or cash flows;
- changes in tax laws or regulations that are applied adversely to us or our customers could materially adversely affect our business, financial condition, results of operations and prospects;
- future sales, or the perception of future sales, by us in the public market could cause the market price for our Class A common stock to decline;
- provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control or changes in our management;
- our certificate of incorporation also provides that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees;
- we do not intend to pay any cash distributions or dividends on our Class A common stock in the foreseeable future;
- we face risks related to actual or threatened health epidemics or pandemics, such as the COVID-19 pandemic; and
- if we fail to maintain effective internal controls over financial reporting, we may be unable to accurately or timely report our financial condition or results of operations, which may adversely affect our business

Risks Related to Our Business and Our Industry

If demand for solar energy projects does not continue to grow or grows at a slower rate than we anticipate, we may not be able to achieve our anticipated level of growth and our business will suffer.

Our solutions are utilized in solar energy projects. As a result, our future success depends on continued demand for solar energy solutions and the ability of solar equipment vendors to meet this demand. The solar industry is an evolving industry that has experienced substantial changes in recent years, and we cannot be certain that consumers and businesses will continue to adopt solar energy as an alternative energy source at levels sufficient to grow our business. In 2023, the domestic utility scale solar market experienced slowing growth as a result of the costs of project financing, lingering uncertainty about the application of the Inflation Reduction Act of 2022 to solar projects, supply chain constraints and interconnection complications. We expect these trends to persist in 2024.

In addition, even though we expect our growth rate to decline from the extremely high levels of the last few years, we believe that our domestic utility scale business will continue growing at an attractive rate. Our significant growth and expansion, combined with the rapidly evolving and competitive nature of our industry, makes it difficult to predict our future prospects. We have encountered and will continue to encounter risks and difficulties frequently experienced by growing companies in rapidly changing industries, including unpredictable and volatile revenue and increased expenses as we continue to grow our business. Some of the factors outside of our control that may impact the viability and demand for solar energy projects include:

- cost competitiveness, reliability and performance of solar energy systems compared to conventional and non-solar renewable energy sources and products, and cost competitiveness, reliability and performance of our products compared to our competitors;
- availability, scale and scope of government subsidies and incentives to support the development and deployment of solar energy solutions;
- prices of traditional carbon-based energy sources;
- levels of investment by end users of solar energy projects, which tend to decrease when economic growth slows; and
- the emergence, continuance or success of, or increased government support for, other alternative energy generation technologies and products.

If demand for solar energy and solar energy projects does not continue to develop, demand for our products will decrease, which would have an adverse impact on our ability to increase our revenue and grow our business.

If we fail to accurately estimate the potential losses related to the wire insulation shrinkback matter, or fail to recover the costs and expenses incurred by us from the supplier, our profit margins, financial results, business and prospects could be materially adversely impacted.

As previously disclosed, the Company was notified by certain customers that a subset of wire harnesses used in its EBOS solutions is presenting unacceptable levels of wire insulation shrinkback. Based upon the Company’s ongoing assessment, the Company currently believes the wire insulation shrinkback is related to defective red wire manufactured by Prysmian Cables and Systems USA, LLC (“Prysmian”). As of December 31, 2023, based on the Company’s continued analysis, which included better visibility into the scope of affected sites and potential solutions, including identification, repair and replacement of harnesses, the Company determined that a potential range of loss was both probable and reasonably estimable and updated its estimate of potential losses from previously provided estimates. Based on the Company’s continued analysis of information available as of the date of this Annual Report, the estimate of potential losses remains unchanged from the estimate provided as of September 30, 2023. As no amount within the current range of loss appears to be a better estimate than any other amount, the Company recorded a warranty liability and related expense representing the low end of the range of potential loss of $59.7 million. The high-end of the range of potential loss is $184.9 million, which is $125.2 million higher than the amount we recorded. As of December 31, 2023, we recorded a warranty liability of $54.9 million related to this matter. The estimated range is based on several assumptions, and as additional information becomes available, the Company may increase or decrease its estimated warranty liability from its current estimate, and such increase or decrease may be material. The Company does not maintain insurance for product warranty and has commenced a lawsuit against Prysmian, as discussed in more detail under Litigation in Note 16 - Commitments and Contingencies in our consolidated financial statements included in this Annual Report on Form 10-K. Because the lawsuit against Prysmian is ongoing, potential recovery from Prysmian is not considered probable as defined in ASC 450, and has not been considered in our estimate of the warranty liability as of December 31, 2023.

Our warranty liability for this matter is based on a number of assumptions, including the potential magnitude of EPC's labor cost to perform the repair and replacement of impacted harnesses, estimated failure rates, materials replacement cost, planned remediation method, and other various assumptions. We do not have a long history of making assumptions relating to warranties. As a result, these assumptions could prove to be materially different from our current estimate, causing us to incur substantial unanticipated expense to identify, repair or replace the defective wire or to compensate customers. Additionally, changes to the planned remediation method could also have a material impact on the warranty liability. As additional information becomes available, the Company may increase or decrease its estimated warranty liability from its current estimate, and such increase or decrease may be material. Our failure to accurately estimate this liability could result in unexpected volatility to our common stock and have a material adverse effect on, our financial condition.

In addition, results of the litigation we have commenced against Prysmian are inherently uncertain and we cannot guarantee the outcome of that litigation. Litigation can be expensive and time consuming and will divert the efforts of our management and other personnel, which could harm our business, whether or not such litigation results in a determination favorable to us. If we fail to recover the costs and expenses incurred by us in connection with the identification, repair and replacement of the defective Prysmian wire, our financial results, business and prospects could be materially adversely impacted. Our actual loss in this matter is uncertain and may have a material adverse effect on our business, financial condition and results of operations.

Similar to our other products, the defective wires associated with the wire insulation shrinkback matter expose us to potential product liability claims. See "Risk Factors - Defects or performance problems in our products or their parts, including those related to the wire insulation shrinkback matter, could result in loss of customers, reputational damage and decreased revenue, and may have a material adverse effect on our business, financial condition and results of operations."

Defects or performance problems in our products or their parts, including those related to the wire insulation shrinkback matter, could result in loss of customers, reputational damage and decreased revenue, and may have a material adverse effect on our business, financial condition and results of operations.

EBOS components, including cable assemblies, inline fuses, combiners, disconnects, recombiners, wireless monitoring systems, junction boxes, transition enclosures, splice boxes, BESS cabinets, conventional homerun EBOS system solutions, the wires related to the wire insulation shrinkback matter and combine-as-you-go EBOS system solutions, whether manufactured by us or third party suppliers, are products and systems that have a high consequence of failure, including equipment damage, fire damage, and even serious injury or death because of the high voltages involved and potential for fire. Further, a fault in the wiring of an EBOS system, whether as a result of product malfunctions, defects or improper installation, may cause electrical failures in solar energy projects. Faults typically occur when natural thermal expansion and contraction occurs at a point where two wires have been joined, loosening the insulation, and allowing moisture into the joint. Faults can result in lost production for customers, damage to the equipment, fire and injury or death depending on their severity and whether people are onsite.

Although we conduct quality assessments on our products and these products have stringent quality requirements, they may contain undetected errors or defects, especially when first introduced or when new generations are released. Errors, defects, product failures, destructions or poor performance can arise due to design flaws, defects in raw materials or components or manufacturing difficulties, which can affect both the quality and the yield of the product. Any actual or perceived errors, defects or poor performance in our products, including those related to the wire insulation shrinkback matter, have resulted and could result in the future in the replacement or recall of our products, shipment delays, rejection of our products, damage to our reputation, lost revenue, diversion of our engineering personnel from our product development efforts and increases in customer service and support costs, all of which could have a material adverse effect on our business, financial condition and results of operations.

Furthermore, defective components may give rise to warranty, indemnity or product liability claims against us, such as those related to the wire insulation shrinkback matter, that may exceed any revenue or profit we receive from the affected products. Our limited warranties cover defects in materials and workmanship of our products under normal use and service conditions. As a result, we bear the risk of warranty claims long after we have sold products and recognized revenue. While we accrue reserves for warranty claims, our estimated warranty expense for previously sold products may change to the extent future products are not compatible with earlier generation products under warranty. Our warranty accruals are based on our assumptions and we do not have a long history of making such assumptions. As a result, these assumptions could prove to be materially different from the actual performance of our systems, causing us to incur substantial unanticipated expense to repair or replace defective products in the future or to compensate customers for defective products. Our failure to accurately predict future claims could result in unexpected volatility and have a material adverse effect on, our financial condition.

If one of our products, including those that contain the defective red wires mentioned above, causes injury to someone or causes property damage, including as a result of product malfunctions, defects or improper installation, we could also be exposed to product liability claims. We could incur significant costs and liabilities if we are sued and if damages are awarded against us. Further, any product liability claim we face, including those related to the wires mentioned above, could be expensive to defend and could divert management's attention. The successful assertion of a product liability claim against us, including those related to the defective wire harnesses mentioned above, could result in potentially significant monetary damages, penalties or fines; subject us to adverse publicity; damage our reputation and competitive position; and adversely affect sales of our products. In addition, product liability claims, injuries, defects or other problems experienced by other companies in the solar industry could lead to unfavorable market conditions for the industry as a whole and may have an adverse effect on our ability to attract new customers, thus harming our growth and financial performance.

We may experience delays, disruptions, quality control or reputational problems in our manufacturing operations in part due to our vendor concentration.

Our product development, manufacturing and testing processes are complex and require significant technological and production process expertise, and we depend on a limited number of vendors and suppliers. Any vendor delay or disruption could cause a delay or disruption in our ability to meet customer requirements which may result in a loss of customers. Such processes involve a number of precise steps from design to production. Any change in our processes could cause one or more production errors, requiring a temporary suspension or delay in our production line until the errors can be researched, identified and properly addressed and rectified. This may occur particularly as we introduce new products, modify our engineering and production techniques, and/or expand our capacity. In addition, our failure to maintain appropriate quality assurance processes could result in increased product failures, loss of customers, increased warranty reserve, increased production and logistics costs and delays. Any of these developments could have a material adverse effect on our business, financial condition, and results of operations.

In addition, we do not control our vendors or suppliers or their business practices. Accordingly, we cannot guarantee that they follow ethical business practices, the divergence of a supplier's labor or other practices from those generally accepted as ethical in the U.S. or other markets in which we do business could also attract negative publicity for us and harm our business.

If we or our suppliers face disputes with labor unions, we may not be able to achieve our anticipated level of growth and our business could suffer.

Although none of our employees are currently represented by a labor union and our relations with our employees have been good to date, the increased frequency of union activity coupled with the constricted labor market may contribute to efforts by our employees to belong to a union, which may result in higher employee costs, operational restrictions and increased risk of disruption to operations. We may also directly and indirectly depend upon other companies with unionized work forces, such as suppliers and trucking and freight companies, and work stoppages or strikes organized by such unions could have a material adverse impact on our business, prospects, financial condition, results of operations, and cash flows.

If we fail to retain our key personnel and attract additional qualified personnel, or successfully integrate our new Chief Executive Officer, our business strategy and prospects could suffer.

Our future success and ability to implement our business strategy depends, in part, on our ability to attract and retain key personnel, and on the continued contributions of members of our senior management team and key technical personnel, each of whom would be difficult to replace. All of our employees, including our senior management, are free to terminate their employment relationships with us at any time. Competition for highly skilled individuals with technical expertise is extremely intense, and we face challenges in identifying, hiring and retaining qualified personnel in many areas of our business. Since we became a public company, there have been changes in our executive management team resulting from the hiring or departure of executives.

In addition, integrating new employees into our team could prove disruptive to our operations, require substantial resources and management attention and ultimately prove unsuccessful. As previously announced, our board of directors appointed Brandon Moss as our Chief Executive Officer effective July 17, 2023. Even though Mr. Moss has had a long and successful career managing and scaling businesses for long-term growth, failure to continue to execute a smooth integration could affect the execution of our business strategy.

An inability to attract and retain senior management, our inability to effectively provide for the succession of senior management, and our inability to attract and retain other key or qualified personnel could limit or delay our strategic efforts, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our products are primarily manufactured and shipped from our production facilities in Tennessee, and any damage or disruption at these facilities may harm our business.

A significant portion of our operations is located in our Tennessee manufacturing facilities. Issues with our workforce, including illness or absenteeism, or difficulties in recruiting skilled workers in the area, as well as a natural disaster, including tornados such as the ones recently experienced in the state, fire, power interruption or other calamity at any one of our facilities or any combination thereof would significantly disrupt our ability to deliver our products and operate our business. Certain of the equipment used to manufacture our products could be difficult, time consuming, or costly to replace or repair if damaged. Any such disruption or unanticipated event may cause significant interruptions or delays in our business and the reduction or loss of inventory may render us unable to fulfill customer orders in a timely manner, or at all, and may result in lawsuits. We have property and business disruption insurance in place for all of our facilities; however, such insurance coverage may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all.

In addition, in 2023, we completed the ramp up of a third facility in Tennessee, increasing our total current production capacity, with the possibility of further increasing our footprint in the future. We believe the increased capacity will enable us to serve growing demand well in the near term, further enhance production efficiency, and maintain profit margins; however, there is no guarantee that we will be able to achieve the benefits from our expanded capacity, and in that case, we may lose the investments made to achieve our expansion.

We may face difficulties with respect to the planned consolidation and relocation of our Tennessee-based manufacturing and distribution operations, and may not realize the benefits thereof.

On February 21, 2024, we announced our intention to invest approximately $80.0 million over the next five years to expand and consolidate our existing Tennessee-based manufacturing and distribution operations to a new, larger facility in Portland, Tennessee. As part of the expansion, we expect to relocate our Tennessee-based manufacturing operations to a more than 600,000 square foot facility.

Construction and development of the new facility is complicated and may present significant challenges, including delays, cost overruns or other complications. In addition, there can be no assurance that we will be able to establish our planned consolidated facility within the planned timeline, or at all. The expense and time required to bring this facility online and to assure that our products manufactured at such facilities comply with our quality standards could be greater than currently anticipated. Any of the foregoing could have a material adverse effect on our business, prospects, results of operations and financial condition and could cause our results of operations to differ materially from our projections.

Unsatisfactory safety performance may subject us to penalties, negatively impact customer relationships, result in higher operating costs, and negatively impact employee morale and turnover.

We place great emphasis on workplace safety in our entire organization through various safety initiatives and training. We have manufacturing facilities that are susceptible to numerous industrial safety risks that can lead to personal injury, loss of life, and damage to property and equipment. While we take precaution to avoid incidents, we have experienced accidents in the past and may again in the future, which can negatively affect our safety record. A poor safety record can harm our reputation with existing and potential customers, jeopardize our relationship with employees, increase our insurance and operating costs and could adversely impact our business and results of operations.

The market for our products is competitive, and we may face increased competition as new and existing competitors introduce EBOS system solutions and components, which could negatively affect our results of operations and market share.

The market for EBOS system solutions and components, including cable assemblies, inline fuses, combiners, disconnects, recombiners, wireless monitoring systems, junction boxes, transition enclosures, splice boxes and BESS cabinets is competitive. Our principal competitors include TerraSmart, LLC (formerly SolarBOS, Inc.), Bentek Corporation, Voltage, LLC and Hikam America, Inc. We compete on the basis of product performance and features, installation cost, reliability and duration of product warranty, sales and distribution capabilities, and training and customer support. Competition may intensify as new and existing competitors enter the market. If our competitors introduce new technologies that are successful in offering price competitive and technological attractive EBOS system solutions and components, it may become more difficult for us to maintain market share.

Several of our existing and potential competitors may have or obtain the financial resources to offer competitive products at aggressive or below-market pricing levels, which could cause us to lose sales or market share or require us to lower prices for our products in order to compete effectively. If we have to reduce our prices by more than we anticipated, or if we are unable to offset any future reductions in our average selling prices by increasing our sales volume, reducing our costs and expenses or introducing new products, our revenue and gross profit will suffer.

In addition, competitors may be able to develop new products more quickly than us, may partner with other competitors to provide combined technologies and competing solutions and may be able to develop products that are more reliable or that provide more functionality than ours. A slow product innovation lifecycle and/or challenges to identify and invest in the appropriate research, development and automation initiatives may result in loss of competitive differentiation and our inability to diversify revenue streams in the future.

Current macroeconomic events, including high inflation, high interest rates, a potential recession and geopolitical instability could impact our business and financial results.

Global supply chain issues, high inflation, volatility in the capital markets, interest rate and currency rate fluctuations, a potential recession and geopolitical instability, including growing tensions between China and the U.S., the Russia-Ukraine war and the Israel-Hamas War, have significantly increased economic and demand uncertainty that has resulted in unfavorable macroeconomic conditions that could 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 significant inflation in fiscal year 2023 and 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 2023 and 2022, significant levels of inflation resulted in increased energy prices, freight premiums, and other operating costs. These increases are expected to persist in 2024. 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, may have the effect of further increasing economic uncertainty and heightening these risks. These higher interest rates resulted, and may continue to result in the future, in higher interest rates associated with our senior secured credit agreement entered into on November 25, 2020 (as amended, the “Senior Secured Credit Agreement”). For the year ended December 31, 2023, interest expense, net increased by $5.6 million or 30% compared to the year ended December 31, 2022, due to increased interest rates associated with our Senior Secured Credit Agreement. Interest rate increases or other government actions taken to reduce inflation could also result in a recession or recessionary environment in many parts of the world. The eventual implications of higher government deficits and debt, tighter monetary policy, and potentially higher long-term interest rates may drive a higher cost of capital in the future.

In 2023 and 2022, we experienced challenges in our global supply chain, including shortages in raw materials and related price increases. Our ability to obtain raw materials from domestic and international suppliers required to manufacture our components was impacted, along with our ability to secure timely inbound logistics to our facilities. We do not directly source a significant amount of raw materials from Europe. However, the ongoing conflict in Ukraine has reduced the availability of certain materials that can be sourced in Europe and, as a result, increased global logistics costs for the procurement of some inputs and materials used in our products. We expect these trends to persist throughout the year. In response to supply chain constraints, in 2022 we increased certain raw materials inventory, partly to limit the potential impact of supply chain issues of raw materials in the near term. During 2023, we continued to monitor and optimize our inventory levels.

While to date, we have been able to manage the challenges associated with these shortages without significant disruption to our business, no assurance can be given that these efforts will continue to be successful.

If economic conditions worsen or a recession occurs, our business, financial results and liquidity could be materially adversely impacted.

Our industry has historically been cyclical and experienced periodic downturns.

Our future success partly depends on continued demand for solar PV systems in the end markets we serve. The solar industry has historically been cyclical and has experienced periodic downturns, which may affect the demand for the products that we manufacture. The solar industry has undergone challenging business conditions, mainly as a result of overproduction, and reductions in applicable governmental subsidies, contributing to demand decreases. The solar industry has been experiencing significant changes over the past years and there is no assurance that it will not suffer significant downturns in the future, which will adversely affect demand for our solar products and our results of operations.

The interruption of the flow of raw materials from international vendors has disrupted our supply chain, including as a result of the imposition of additional duties, tariffs and other charges on imports and exports.

We purchase some of our raw materials outside of the U.S. through arrangements with various vendors. Political, social or economic instability in these regions, or in other regions where our raw materials are made, could cause disruptions in trade. Actions in various countries have created uncertainty with respect to tariff impacts on the costs of some of our raw materials. The degree of our exposure is dependent on (among other things) the type of materials, rates imposed, and timing of the tariffs. Other events that could also cause disruptions to our supply chain include:

- the imposition of additional trade law provisions or regulations;
- the imposition of additional duties, tariffs and other charges on imports and exports, including as a result of trade relationships between China and the U.S. and the Russia-Ukraine war;
- quotas imposed by bilateral trade agreements;
- foreign currency fluctuations;
- natural disasters;
- public health issues and epidemic diseases, their effects (including any disruptions they may cause) or the perception of their effects, such as the novel coronavirus (“COVID-19”) pandemic;
- theft;
- restrictions on the transfer of funds;
- the financial instability or bankruptcy of vendors; and
- significant labor disputes, such as dock strikes.

We cannot predict whether the countries in which our raw materials are sourced, or may be sourced in the future, will be subject to new or additional trade restrictions imposed by the U.S. or other foreign governments, including the likelihood, type or effect of any such restrictions. Trade restrictions, including new or increased tariffs or quotas, border taxes, embargoes, safeguards and customs restrictions against certain raw materials, as well as labor strikes and work stoppages or boycotts, could increase the cost or reduce or delay the supply of raw materials available to us and adversely affect our business, financial condition or results of operations.

We are subject to risks associated with the patent infringement complaints that we filed with the U.S. International Trade Commission (“ITC”) and two District Courts.

As disclosed under Litigation in Note 16 - Commitments and Contingencies in our consolidated financial statements included in this Annual Report on Form 10-K, on May 4, 2023, we filed patent infringement complaints with the ITC and with the U.S. District Courts against each of Hikam America, Inc., a corporation based in Chula Vista, California, and a related foreign entity (together, “Hikam”), and Voltage LLC, a limited liability company based in Chapel Hill, North Carolina, and its related foreign entities (together, “Voltage”), seeking to ban the importing, marketing, distributing, selling, offering for sale, licensing, advertising, transferring, or otherwise using the infringing photovoltaic connectors and components in and into the United States in a manner that we allege infringes on the Company's enforceable patents. On June 28, 2023 and July 19, 2023, we filed an amended complaint with the ITC and the U.S. District Court for the Middle District of North Carolina, respectively, against Voltage alleging that they also infringe on a third, recently issued patent owned by the Company. The District Court actions have been stayed pending the final disposition of the ITC investigation. The Administrative Law Judge issued a Claim Construction Ruling on February 21, 2024. As a result of the Claim Construction Ruling, in order to streamline the case and focus our limited time during the evidentiary hearing, and as recommended by the ITC's Investigative Attorney to preserve public resources, we filed an unopposed motion on February 26, 2024, and such motion was granted on February 28, 2024, to remove one of the three asserted patents covering duplicative subject matter against Voltage. An evidentiary hearing in the ITC investigation has been scheduled for March 18 through 22, 2024. The ITC has set a target date for completion of the investigation of November 12, 2024. We intend to vigorously pursue these actions, however, at this stage, we are unable to predict the outcome or impact on our business.

If we are unsuccessful with respect to the patent infringement complaints against Hikam and Voltage, our patents or other intellectual property could be at risk of being invalidated or interpreted narrowly, and the alleged infringing products may continue to be imported and sold in the United States. In such case, we could lose potential revenue to Hikam and/or Voltage as well as other parties who would be able to sell similar products.

If we fail to, or incur significant costs in order to, obtain, maintain, protect, defend or enforce our intellectual property and other proprietary rights, including those that are subject to the patent infringement complaints we filed with the ITC and two District Courts, our business and results of operations could be materially harmed.

Our success depends to a significant degree on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret and unfair competition laws, as well as confidentiality and license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. Such means may afford only limited protection of our intellectual property and may not (i) prevent our competitors from duplicating our processes or technology; (ii) prevent our competitors from gaining access to our proprietary information and technology; or (iii) permit us to gain or maintain a competitive advantage.

We generally seek or apply for patent protection as and if we deem appropriate, based on then-current facts and circumstances. We have applied for patents in the U.S., some of which have been issued. We cannot guarantee that any of our pending patent applications or other applications for intellectual property registrations will be issued or granted or that our existing and future intellectual property rights will be sufficiently broad to protect our proprietary technology. While a presumption of validity exists with respect to U.S. patents issued to us, there can be no assurance that any of our patents, patent applications, or other intellectual property rights will not be, in whole or in part, opposed, contested, challenged, invalidated, circumvented, designed around, or rendered unenforceable. Any such impairment or other failure to obtain sufficient intellectual property protection could impede our ability to market our products, negatively affect our competitive position and harm our business and operating results, including by forcing us to, among other things, rebrand or redesign our affected products. Moreover, our patents and patent applications may only cover particular aspects of our products, and competitors and other third parties may be able to circumvent or design around our patents, or develop and obtain patent protection for more effective technologies, designs or methods. There can be no assurance that third parties will not create new products or methods that achieve similar or better results without infringing upon patents we own. If these developments occur, they could have an adverse effect on our sales or market position.

In countries where we have not applied for patent protection or trademark or other intellectual property registration or where effective patent, trademark, trade secret, and other intellectual property laws and judicial systems may not be available to the same extent as in the U.S., we may be at greater risk that our proprietary rights will be circumvented, misappropriated, infringed, or otherwise violated.

We rely heavily on trade secrets and nondisclosure agreements to protect our unpatented know-how, technology, and other proprietary information, and to maintain our competitive position, which we seek to protect, in part, by entering into nondisclosure and confidentiality agreements with parties who have access to them, such as our employees, consultants, and other third parties. However, we cannot guarantee that we have entered into such agreements with each party that has or may have had access to our proprietary information, know-how and trade secrets. Moreover, no assurance can be given that these agreements will be effective in controlling access to, distribution, use, misuse, misappropriation, or disclosure of our proprietary information, know-how and trade secrets, or in preventing our competitors from independently developing technologies that are substantially equivalent or superior to ours.

The registered or unregistered trademarks or trade names that we own may be challenged, infringed, circumvented, declared generic, lapsed or determined to be infringing on or dilutive of other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition. In addition, third parties may file for registration of trademarks similar or identical to our trademarks, thereby impeding our ability to build brand identity and possibly leading to market confusion. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively.

We have, and may in the future need to initiate infringement claims or litigation in order to protect or enforce our intellectual property rights. Litigation, whether we are a plaintiff or a defendant, can be expensive and time consuming and may divert the efforts of our management and other personnel, which could harm our business, whether or not such litigation results in a determination favorable to us. Enforcing our intellectual property rights in all countries throughout the world may be prohibitively expensive, and we may choose to forgo such activities in some jurisdictions. Litigation, including the complaints discussed above, also puts our patents or other intellectual property at risk of being invalidated or interpreted narrowly and our patent applications or applications for other intellectual property registrations at risk of not issuing. In such case, we could lose potential revenue to the defendants as well as other parties who may sell similar products. Additionally, any enforcement of our patents or other intellectual property may provoke third parties to assert counterclaims against us. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Acquisitions, joint ventures and/or investments and the failure to integrate acquired businesses, could disrupt our business and/or dilute or adversely affect the price of our common stock.

Our success depends, in part, on our ability to expand our product offerings and grow our business in response to changing technologies, customer demands and competitive pressures. In some circumstances, we may pursue growth through the acquisition of complementary businesses, solutions or technologies or through joint ventures or investments rather than through internal development. The identification of suitable acquisition or joint venture candidates can be difficult, time-consuming and costly, and we may not be able to successfully complete identified acquisitions or joint ventures.

Achieving anticipated benefits and synergies from acquisitions is uncertain and subject to various risks, including our ability to integrate or benefit from acquired technologies or services in a profitable manner; diversion of capital and other resources, including management's attention; unanticipated costs or liabilities related to the acquisition; failure to leverage the increased scale of the combined businesses quickly and effectively; the potential impact of the acquisition on our relationships with employees, vendors, suppliers and customers; the impairment of relationships with, or the loss of, the acquired entity's employees, vendors, suppliers or customers; adverse changes in general economic conditions in regions in which we operate; potential litigation associated with the acquisition; difficulties in the assimilation of employees and culture; difficulties in managing the expanded operations of a larger and more complex company; and challenges in attracting and retaining key personnel. Many of these factors will be outside of our control and any one of them could result in increased costs, decrease in expected revenues and diversion of management's time and attention, which could materially impact the combined company. The full benefits of an acquisition may not be realized within the anticipated time frame or at all. All of these factors could decrease or delay the expected accretive effect of acquisitions and negatively impact our company.

Our future growth in the EV charging market is highly dependent on the demand for, and consumers' willingness to adopt, EVs, as well as on the actions of federal, foreign, state and local governments.

Our future growth in the EV charging market is highly dependent on the demand for, and consumers' willingness to adopt, EVs. The market for EVs is still rapidly evolving, characterized by rapidly changing technologies, competitive pricing and competitive factors, evolving government regulation and industry standards, and changing consumer demands and behaviors. In addition, any reduction, elimination, or discriminatory application of government subsidies and economic incentives because of policy changes or other reasons may result in the diminished competitiveness of, and demand for, EVs. The U.S. federal government, foreign governments and some state and local governments provide incentives to end users and purchasers of EVs and EV charging stations in the form of rebates, tax credits and other financial incentives, such as payments for regulatory credits. The EV market relies on these governmental rebates, tax credits and other financial incentives to significantly lower the effective price of EVs and EV charging stations to customers. The Infrastructure Investment and Jobs Act signed into law on November 15, 2021 provided additional funding for EVs and EV charging infrastructure through the creation of new programs and grants and the expansion of existing programs, including $7.5 billion for EV charging along highway corridors. The Biden Administration has taken regular steps since 2021 to further these EV charging infrastructure programs. In June 2022, the Biden Administration proposed new minimum standards and requirements to create a framework for states to build federally funded charging station projects and in December 2023, the Department of Transportation announced plans to issue a request for information to solicit feedback on updating its standards to allow for new technology and continued innovation. On January 11, 2024, the Biden Administration announced $623 million in new grants to continue building out the EV charging network as part of its Charging and Fueling Infrastructure Discretionary Grant Program. In addition, the Inflation Reduction Act of 2022 signed into law on August 16, 2022 includes numerous incentives and tax credits aimed at reducing the effects of climate change, such as the extension of EV charging infrastructure tax credits and tax credits for EVs under the Internal Revenue Code of 1986, as amended, through 2032. On January 19, 2024, the Biden Administration announced new definitions under the Department of Treasury and Department of Energy regulations that confirms the Inflation Reduction Act's 30C EV charging tax credit that provides credits for installing EV charging infrastructure. 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 by different administrations. Reduction in rebates, tax credits or other financial incentives for EVs or EV charging stations could materially reduce the demand for EVs, EV charging stations and, thus, our EV charging products and, as a result, may adversely impact our business and expansion potential. Further, federal, state and local laws may impose barriers to electric vehicle adoption, including additional costs. For example, many states have enacted laws imposing additional registration fees for certain hybrid and EVs to support transportation infrastructure. Any of the foregoing could materially and adversely affect the growth of the EV markets and our business, prospects, financial condition, results of operations, and cash flows.

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 flow.

A small number of customers have historically accounted for a material portion of our revenue. For the year ended December 31, 2023, our largest customer and five largest customers constituted approximately 36.3% and 56.9% of total revenue, respectively. Further, the Company's trade accounts receivable are from companies within the solar industry, and as such, the Company is exposed to normal industry credit risks. As of

December 31, 2023, our largest customer and five largest customers constituted 37.5% and 65.5% of trade accounts receivable, respectively. Accordingly, loss of our largest customer or other significant customers, a significant reduction in pricing or order volume from our largest customer or other significant customers, their inability to perform under their contracts, or their default in payment could adversely reduce net sales and operating results in any reporting period.

A significant drop in the price of electricity sold may harm our business, financial condition, results of operations and prospects.

Significant decreases in the price of electricity, whether in organized electric markets or with contract counterparties, may negatively impact the owners of the solar energy projects or make the purchase of solar energy systems less economically attractive and would likely lower sales of our products. The price of electricity could decrease as a result of:

- construction of a significant number of new lower-cost power generation plants, including plants utilizing natural gas, renewable energy or other generation technologies;
- relief of transmission constraints that enable distant lower-cost generation to transmit energy less expensively or in greater quantities;
- reductions in the price of natural gas or other fuels;
- utility rate adjustment and customer class cost reallocation;
- decreased electricity demand, including from energy conservation technologies and public initiatives to reduce electricity consumption;
- development of smart-grid technologies that lower the peak energy requirements;
- development of new or lower-cost customer-sited energy storage technologies that have the ability to reduce a customer's average cost of electricity by shifting load to off-peak times; and
- development of new energy generation technologies that provide less expensive energy.

Moreover, technological developments in the solar components industry could allow our competitors and their customers to offer electricity at costs lower than those that can be achieved by us and our customers, which could result in reduced demand for our products.

If the cost of electricity generated by solar energy installations incorporating our systems is high relative to the cost of electricity from other sources, then our business, financial condition and results of operations may be harmed.

A further increase in interest rates or a reduction in the availability of tax incentives or project debt capital in the global financial markets could make it difficult for end customers to finance the cost of a solar energy system and could reduce the demand for our products.

Even though certain government subsidies and economic incentives are currently in place to encourage the adoption of solar energy and have resulted in increased demand for solar energy projects, many end users still depend on financing to fund the initial capital expenditure required to construct a solar energy project. As a result, increases in interest rates, including the increases effected by the Federal Reserve in the U.S. in 2023 and 2022, or a reduction in the supply of project debt as a result of a potential recession or otherwise, or a reduction in tax incentives could reduce the number of solar projects that receive financing or otherwise make it difficult for our customers or their customers to secure the financing necessary to construct a solar energy project on favorable terms, or at all, and thus lower demand for our products, which could limit our growth and reduce our net sales. In addition, we believe that a significant percentage of end-users construct solar energy projects as an investment, funding a significant portion of the initial capital expenditure with financing from third parties. Increases in interest rates could lower an investor's return on investment on a solar energy project, increase equity requirements or make alternative investments more attractive relative to solar energy projects and, in each case, could cause these end users to seek alternative investments.

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

Our quarterly results of operations are difficult to predict and may fluctuate significantly in the future. We have experienced seasonal and quarterly fluctuations in the past as a result of seasonal fluctuations in our customers' business. Our end users' ability to install solar energy systems is affected by weather, as for example during the winter months in the northeastern U.S. Such installation delays can impact the timing of orders for our products. Further, given that we are an early-stage company operating in a rapidly growing industry, the true extent of these fluctuations may have been masked by our recent growth rates and consequently may not be readily apparent from our historical results of operations and may be difficult to predict. Our financial performance, sales, working capital requirements and cash flow may fluctuate, and our past quarterly results of operations may not be good indicators of future performance. Any substantial decrease in revenue would have an adverse effect on our financial condition, results of operations, cash flows and stock price.

Failure to effectively utilize information technology systems or implement new technologies and the unauthorized disclosure of personal or sensitive data or confidential information, whether through a breach of our computer system or otherwise, could severely disrupt our business or reduce our sales or profitability.

We rely extensively on various information technology systems, including data centers, hardware, software and applications to manage many aspects of our business, including to operate and provide our products and services, to process and record transactions, to enable effective communication systems, to track inventory flow, to manage logistics and to generate performance and financial reports. We are dependent on the integrity, security and consistent operations of these systems and related backup systems. Our computer and information technology systems and the third-party systems we rely upon are also subject to damage or interruption from a number of causes, including power outages; computer and telecommunications failures; computer viruses, malware, phishing or distributed denial-of-service attacks; security breaches; cyberattacks; catastrophic events such as fires, floods, earthquakes, tornadoes, hurricanes; acts of war or terrorism and design or usage errors by our employees or contractors. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusions, including by computer hackers, nation-state affiliated actors, and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased as well.

Some aspects of our business involve the collection, receipt, use, storage, processing and transmission of personal information (of our customers' and end users of our customers' solar energy systems, including names, addresses, e-mail addresses, credit information, energy production statistics), consumer preferences as well as confidential information and personal data about our employees, our suppliers and us, some of which is entrusted to third-party service providers and vendors. Despite the security measures we have in place, our facilities and systems, and those of third parties with which we do business, may be vulnerable to security breaches, cyberattacks, acts of vandalism and theft, computer viruses, misplaced or lost data, programming and/or human errors, or other similar events, and there is no guarantee that inadvertent or unauthorized use or disclosure will not occur or that third parties will not gain unauthorized access to this type of confidential information and personal data. Any perceived or actual unauthorized access to, or use or disclosure of, such information could harm our reputation, substantially impair our ability to attract and retain customers and have an adverse impact on our business, financial condition and results of operations.

We have been and expect to continue to be the target of fraudulent calls, emails and other forms of activities and have experienced security breaches; however, to date, they have not had a material impact on our business, results of operations or financial condition.

In addition, as the regulatory environment relating to companies' obligations to protect such sensitive data and disclose certain incidents or breaches becomes increasingly rigorous, with new and constantly changing requirements, compliance with those requirements could result in additional costs, and a material failure on our part to comply could subject us to fines or other regulatory sanctions and potentially to lawsuits. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Compromises, interruptions or shutdowns of our information technology systems, including those managed by third parties, whether intentional or inadvertent, could lead to delays in our business operations and, if significant or extreme, affect our results of operations.

From time to time, our information technology systems require modifications and updates, including by adding new hardware, software and applications; maintaining, updating or replacing legacy programs; and integrating new service providers and adding enhanced or new functionality. Although we are actively selecting systems and vendors and implementing procedures to enable us to maintain the integrity of our systems when we modify them, there are inherent risks associated with modifying or replacing systems, and with new or changed relationships, including accurately capturing and maintaining data, realizing the expected benefit of the change and managing the potential disruption of the operation of the systems as the changes are implemented. Potential issues associated with implementation of these technology initiatives could reduce the efficiency of our operations in the short term. In addition, any interruption in the operation of our websites or systems could cause us to suffer reputational harm or to lose sales if customers are unable to access our site or purchase merchandise from us during such interruption. The efficient operation and successful growth of our business depends upon our information technology systems. The failure of our information technology systems and the third-party systems we rely on to perform as designed, or our failure to implement and operate them effectively, could disrupt our business or subject us to liability and thereby have a material adverse effect on our business, financial condition, results of operations and prospects.

Our expansion outside the U.S. could subject us to additional business, financial, regulatory and competitive risks.

Our strategy is to introduce new products and grow our revenue outside of the U.S., including in Asia-Pacific, Europe, Latin-America, and Africa, by developing region-specific products; entering into joint-venture or licensing arrangements with companies in certain markets; expanding our relationships with value-added resellers of our products in some countries; and utilizing locally sourced components in our products in jurisdictions where locally sourced components are a regulatory or customer requirement.

Our products and services to be offered outside of the U.S. may differ from our current products and services in several ways, such as the consumption and utilization of local raw materials, components and logistics, the reengineering of select components to reduce costs, and region-specific customer training, site commissioning, warranty remediation and other technical services.

These markets have different characteristics from the markets in which we currently sell products, and our success will depend on our ability to adapt properly to these differences. These differences include differing regulatory requirements, including tax laws, trade laws, labor regulations, tariffs, export quotas, customs duties or other trade restrictions, limited or unfavorable intellectual property protection, international political or economic conditions, restrictions on the repatriation of earnings, longer sales cycles, warranty expectations, product return policies and cost, performance and compatibility requirements. In addition, expanding into new geographic markets increases our exposure to presently existing risks, such as fluctuations in the value of foreign currencies and difficulties and increased expenses in complying with U.S. and foreign laws, regulations and trade standards, including the Foreign Corrupt Practices Act of 1977, as amended (the “FCPA”). The FCPA generally prohibits companies and their intermediaries from making improper payments to foreign government officials for the purpose of obtaining or retaining business. Other countries in which we operate and may operate in the future may also have anti-bribery laws. Our policies mandate compliance with these anti-bribery laws. However, we currently operate in and intend to further expand into, many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. It is possible that our employees, subcontractors, agents and partners may take actions in violation of our policies and anti-bribery laws. Any such violation, even if prohibited by our policies, could subject us to criminal or civil penalties or other sanctions, which could have a material adverse effect on our business, financial condition, cash flows and reputation.

Failure to manage the risks and challenges associated with our potential expansion into new geographic markets could adversely affect our revenue and our ability to achieve or sustain profitability.

Our indebtedness could adversely affect our financial flexibility and our competitive position.

As of December 31, 2023, we had $143.8 million of term loans and $40.0 million revolving credit loans outstanding under the Senior Secured Credit Agreement. Our level of indebtedness increases the risk that we may be unable to generate cash sufficient to pay amounts due in respect of our indebtedness. Our indebtedness could have other important consequences to you and significant effects on our business. For example, it could:

- increase our vulnerability to adverse changes in general economic, industry and competitive conditions;
- require us to dedicate a substantial portion of our cash flow from operations to make payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- restrict us from exploiting business opportunities;
- make it more difficult to satisfy our financial obligations, including payments on our indebtedness;
- place us at a disadvantage compared to our competitors that have less debt; and
- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions, debt service requirements, execution of our business strategy or other general corporate purposes.

In addition, the Senior Secured Credit Agreement contains, and the agreements evidencing or governing any other future indebtedness may contain, restrictive covenants that will limit our ability to engage in activities that may be in our long-term best interests. Our failure to comply with those covenants could result in an event of default that, if not cured or waived, could result in the acceleration of all of our indebtedness.

Our indebtedness may restrict our current and future operations, which could adversely affect our ability to respond to changes in our business and to manage our operations.

The Senior Secured Credit Agreement contains, and the agreements evidencing or governing any other future indebtedness may contain, financial restrictions on us and our restricted subsidiaries, including restrictions on our or our restricted subsidiaries’ ability to, among other things:

- place liens on our or our restricted subsidiaries’ assets;
- make investments other than permitted investments;
- incur additional indebtedness;

- prepay or redeem certain indebtedness;
- merge, consolidate or dissolve;
- sell assets;
- engage in transactions with affiliates;
- change the nature of our business;
- change our or our subsidiaries' fiscal year or organizational documents; and
- make restricted payments (including certain equity issuances).

In addition, we are required to maintain compliance with various financial ratios in the Senior Secured Credit Agreement. A failure by us to comply with the covenants or to maintain the required financial ratios contained in the Senior Secured Credit Agreement could result in an event of default under such indebtedness, which could adversely affect our ability to respond to changes in our business and manage our operations. Additionally, a default by us under the Senior Secured Credit Agreement or an agreement governing any other future indebtedness may trigger cross-defaults under any other future agreements governing our indebtedness. Upon the occurrence of an event of default or cross-default under any of the present or future agreements governing our indebtedness, the lenders could elect to declare all amounts outstanding to be due and payable and exercise other remedies as set forth in the agreements. If any of our indebtedness is accelerated, there can be no assurance that our assets will be sufficient to repay this indebtedness in full, which could have a material adverse effect on our ability to continue to operate as a going concern.

Developments in alternative technologies may have a material adverse effect on demand for our offerings.

Significant developments in alternative technologies, such as advances in other forms of EBOS systems, may have a material adverse effect on our business and prospects. Any failure by us to adopt new or enhanced technologies or processes, or to react to changes in existing technologies, could result in product obsolescence, the loss of competitiveness of our products, decreased revenue and a loss of market share to competitors.

Amounts included in our backlog and awarded orders may not result in actual revenue or translate into profits.

As of December 31, 2023, we had $631.3 million of backlog and awarded orders. Backlog of $205.8 million represents signed purchase orders or contractual minimum purchase commitments with take-or-pay provisions and awarded orders of $425.5 million are orders we are in the process of documenting a contract but for which a contract has not yet been signed. We cannot guarantee that our backlog or awarded orders will result in actual revenue in the originally anticipated period or at all. In addition, the contracts included in our backlog or awarded orders may not generate margins equal to our historical operating results. Our customers may experience project delays or cancel orders as a result of external market factors and economic or other factors beyond our control. If our backlog and awarded orders fail to result in revenue at all or in a timely manner, we could experience a reduction in revenue, profitability and liquidity.

Risks Related to Regulatory Matters

Existing electric utility industry, renewable energy and solar energy policies and regulations, and any subsequent changes, may present technical, regulatory and economic barriers to the purchase and use of solar energy systems that may significantly reduce demand for our products or harm our ability to compete.

Federal, state, local and foreign government regulations and policies concerning the broader electric utility industry, as well as internal policies and regulations promulgated by electric utilities and organized electric markets with respect to fees, practices, and rate design, heavily influence the market for electricity generation products and services. These regulations and policies often affect electricity pricing and the interconnection of generation facilities, and can be subject to frequent modifications by governments, regulatory bodies, utilities and market operators. For example, changes in fee structures, electricity pricing structures, and system permitting, interconnection and operating requirements can deter purchases of renewable energy products, including solar energy systems, by reducing anticipated revenue or increasing costs or regulatory burdens for would-be system purchasers. The resulting reductions in demand for solar energy systems could harm our business, prospects, financial condition and results of operations.

Chief among policies intended to promote renewable electricity generally, or solar electricity in particular, are renewable portfolio standards (RPS) and clean energy standards ("CES"). Currently, over half of the U.S. states, the District of Columbia, and Puerto Rico have implemented some form of RPS/CES policy, which mandates that a certain portion of electricity delivered by regulated utilities to customers come from a set of eligible renewable or clean energy resources by a certain compliance date. Additionally, several states have set voluntary renewable energy goals. RPS/CES policies vary widely by jurisdiction. In some areas, requirements have been satisfied and utilities must only prevent reductions in qualifying energy purchases and sales, while in other jurisdictions, RPS/CES policies continue to require substantial increases, up to 100 percent renewable electric generation, with final compliance dates typically 20 or more years out. Proposals to extend compliance deadlines, reduce renewable requirements or solar set-asides, or entirely repeal RPS/CES policies emerge periodically in various jurisdictions. While the recent trend has been for jurisdictions with RPS/CES policies to maintain or expand them, there can be no assurances that RPS/CES policies or other policies supporting renewable energy will continue.

Net metering policies have also promoted solar electricity by allowing solar PV system owners to only pay for power usage net of production from the solar PV system. Under a net metering program, the customer typically pays for the net energy used or receives a credit against future bills if more energy is produced than consumed. While most U.S. states have adopted some form of net metering, these programs have recently come under regulatory scrutiny in some jurisdictions due to allegations that net metering policies inequitably shift costs onto non-solar ratepayers. As a result, net metering policies in the future may be modified or even eliminated. The absence of favorable net metering policies or of net metering entirely, or the imposition of new charges that only or disproportionately affect end-users that use net metering would significantly limit demand for our products and could have a material adverse effect on our business, financial condition, results of operations and future growth.

A significant development in renewable-energy pricing policies in the U.S. occurred on July 16, 2020, when the Federal Energy Regulatory Commission ("FERC") issued Order No. 872 amending regulations that implement the Public Utility Regulatory Policies Act ("PURPA"). Among other requirements, PURPA mandates that FERC implement regulations requiring electric utilities to buy the output of certain renewable generators, including qualifying solar energy facilities, below established capacity thresholds, excluding renewable generation located in states where FERC has approved an exception to the PURPA purchase requirement. PURPA also requires that such sales occur at a utility's "avoided cost" rate. FERC's reforms in Order No. 872 include modifications (1) to how regulators and electric utilities may establish avoided cost rates for new contracts; (2) that reduce from 20 MW to 5 MW the capacity threshold above which a renewable-energy qualifying facility is rebuttably presumed to have nondiscriminatory market access, thereby removing the requirement for utilities to purchase its output; (3) that require regulators to establish criteria for determining when an electric utility incurs a legally enforceable obligation to purchase from a PURPA facility; and (4) that reduce barriers for third parties to challenge PURPA eligibility. Order No. 872 became effective on February 16, 2021. In general, FERC's PURPA reforms have the potential to reduce prices for the output from certain new renewable generation projects while also narrowing the scope of PURPA eligibility for new projects. These effects could reduce demand for PURPA-eligible solar energy systems and could harm our business, prospects, financial condition and results of operations.

Changes in other current laws or regulations applicable to us or the imposition of new laws, regulations or policies in the U.S. or other jurisdictions in which we do business could have a material adverse effect on our business, financial condition and results of operations. Any changes to government, utility or electric market regulations or policies that favor electric utilities, non-solar generation, or other market participants, or that make construction or operation of new solar generation facilities more expensive or difficult, could reduce the competitiveness of solar energy systems and cause a significant reduction in demand for our products and services and adversely impact our growth. In addition, changes in our products or changes in export and import laws and implementing regulations may create delays in the introduction of new products in international markets, prevent our customers from deploying our products internationally or, in some cases, prevent the export or import of our products to certain countries altogether. Any such event could have a material adverse effect on our business, financial condition and results of operations.

Changes in the U.S. trade environment, including the imposition of trade restrictions, import tariffs, anti-dumping and countervailing duties could adversely affect the amount or timing of our revenue, results of operations or cash flows.

Escalating trade tensions, particularly between the U.S. and China, have led to increased tariffs and trade restrictions, including tariffs applicable to certain materials and components for our products or for products used in solar energy projects more broadly, such as module supply and availability. More specifically, in March 2018, the U.S. imposed a 25% tariff on steel imports and a 10% tariff on aluminum imports pursuant to Section 301 of the Trade Act of 1974 and has imposed additional tariffs on steel and aluminum imports pursuant to Section 232 of the Trade Expansion Act of 1962. Additionally, in January 2018, the U.S. adopted a tariff on imported solar modules and cells pursuant to Section 201 of the Trade Act of 1974, which was extended in February 2022 for another four years. The tariff was initially set at 30%, with a gradual reduction over four years to 15%. This tariff may indirectly affect us by impacting the financial viability of solar energy projects, which could in turn reduce demand for our products. Furthermore, in July 2018, the U.S. adopted a 10% tariff on a long list of products imported from China under Section 301 of the Trade Act of 1974, including inverters and power optimizers, which became effective on September 24, 2018. In June 2019, the U.S. Trade Representative increased the rate of such tariffs from 10% to 25%. These tariffs could impact the solar energy projects in which our products are used, which could lead to decreased demand for our products.

On January 15, 2020, the U.S. and China entered into an initial trade deal that preserves the bulk of the tariffs placed in 2018 and maintains a threat of additional tariffs should China breach the terms of the deal.

In December 2021, President Biden signed the Uyghur Forced Labor Prevention Act (“UFLPA”) into law, which became effective on June 21, 2022. The UFLPA seeks to block the import of products made with forced labor in certain areas of China and has identified a list of suppliers from which products are subject to a presumption of import denial. As a result, some suppliers of solar modules have seen shipments detained by U.S. Customs and Border Patrol pursuant to the UFLPA. These detainments have not significantly impacted any of our customers’ projects to date; however, continued or future detainments could affect the industry and impact solar energy projects more broadly, which in turn could affect our business. We are continuing to monitor developments in this area.

In addition, the U.S. currently imposes antidumping and countervailing duties on certain imported crystalline silicon PV cells and modules from China and Taiwan. Such antidumping and countervailing duties can change over time pursuant to annual reviews conducted by the U.S. Department of Commerce (“USDOC”), and an increase in duty rates could have an adverse impact on our operating results. On August 23, 2023, as a result of an investigation, the USDOC determined that imports of certain crystalline silicone PV that have been completed in Cambodia, Malaysia, Thailand, or Vietnam, using parts or components produced in the People’s Republic of China are circumventing the antidumping and countervailing orders on solar cells and modules from China. However, on June 6, 2022, President Biden issued Proclamation 10414 that declared an emergency with respect to U.S. electricity generation capacity and stated that immediate action was needed to ensure access to a sufficient supply of solar cells and modules to assist in meeting the U.S.' electricity generation needs temporarily waiving for 24 months (through June 2024) the collection of antidumping and countervailing duties for certain cells and modules subject to USDOC's investigation. As the timing and progress of many of our customers' projects depend upon the supply of PV cells and modules, our operating results could be adversely impacted by the USDOC's determination, especially once the temporary waiver expires. In addition, on October 7, 2022, the Biden Administration adopted export controls related to technology that could harm U.S. national security. Further export controls related to technology could impact the business, notably if the U.S. Government expands the restrictions to more common technology.

Tariffs and the possibility of additional tariffs in the future, including as a result of the petition pending with the USDOC regarding circumvention of antidumping and countervailing duties, have created uncertainty in the industry. If the price of solar systems in the U.S. increases, the use of solar systems could become less economically feasible and could reduce our gross profits or reduce the demand of solar systems manufactured and sold, which in turn may decrease demand for our products. Additionally, existing or future tariffs or other trade restrictions may negatively affect key customers, suppliers, and manufacturing partners. Such outcomes could adversely affect the amount or timing of our revenue, results of operations or cash flows, and continuing uncertainty could cause sales volatility, price fluctuations or supply shortages or cause our customers to advance or delay their purchase of our products. It is difficult to predict what further trade-related actions governments may take, which may include additional or increased tariffs and trade restrictions, and we may be unable to quickly and effectively react to such actions.

Changes in tax laws or regulations that are applied adversely to us or our customers could materially adversely affect our business, financial condition, results of operations and prospects.

Changes in corporate tax rates, tax incentives for renewable energy projects, the realization of net deferred tax assets relating to our U.S. operations, the taxation of foreign earnings, and the deductibility of expenses under future tax reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges in the current or future taxable years, and could increase our future U.S. tax expense, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Risks Related to Our Class A Common Stock

We cannot assure you that the price of our Class A common stock will not decline or not be subject to significant volatility.

The market price of our Class A common stock has and could be subject to significant fluctuations. The price of our stock may change in response to fluctuations in our results of operations in future periods, the wire insulation shrinkback matter, and other factors specific to our company, and also may change in response to other factors, including macroeconomic factors as well as factors specific to companies in our industry, many of which are beyond our control. As a result, our share price may experience significant volatility and may not necessarily reflect the value of our expected performance.

Future sales, or the perception of future sales, by us in the public market could cause the market price for our Class A common stock to decline.

The sale of shares of our Class A common stock in the public market, or the perception that such sales could occur, could harm the prevailing market price of shares of our Class A common stock. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

In addition, we have, and in the future, we may also issue securities in connection with investments, acquisitions or capital raising activities. In particular, the number of shares of our Class A common stock issued in connection with an investment or acquisition, or to raise additional equity capital, could constitute a material portion of our then-outstanding shares of our Class A common stock. Any such issuance of additional securities in the future may result in additional dilution to you or may adversely impact the price of our Class A common stock.

Provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control or changes in our management.

Our certificate of incorporation and bylaws contain provisions that could depress the trading price of our Class A common stock by discouraging, delaying or preventing a change of control of our Company or changes in our management that the stockholders of our Company may believe to be advantageous. These provisions include:

- authorizing "blank check" preferred stock that our board of directors could issue to increase the number of outstanding shares to discourage a takeover attempt;
- providing for a classified board of directors with staggered three-year terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- not providing for cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- limiting the ability of stockholders to call a special stockholder meeting;
- prohibiting stockholders from acting by written consent;
- establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings;
- the removal of directors only for cause and only upon the affirmative vote of the holders of at least 66 2/3% in voting power of all the then-outstanding shares of common stock of the Company entitled to vote thereon;
- providing that our board of directors is expressly authorized to amend, alter, rescind or repeal our bylaws; and
- requiring the affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of Class A common stock to amend provisions of our certificate of incorporation relating to the management of our business, our board of directors, stockholder action by written consent, calling special meetings of stockholders, competition and corporate opportunities, Section 203 of the Delaware General Corporation Law (the "DGCL"), forum selection and the liability of our directors, or to amend, alter, rescind or repeal our bylaws.

In addition, we are not governed by the provisions of Section 203 of the DGCL, which generally prohibits a Delaware corporation from engaging in a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder becomes an "interested" stockholder.

In addition, our certificate of incorporation provides that U.S. federal district courts will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act but that the forum selection provision will not apply to claims brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Our certificate of incorporation also provides that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our certificate of incorporation provides that, unless we consent in writing to the selection of an alternate forum, the Court of Chancery of the State of Delaware will, to the fullest extent permitted by applicable law, be the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our certificate of incorporation or our bylaws; any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or our bylaws; any action asserting a claim against us that is governed by the internal affairs doctrine; or any action asserting an "internal corporate claim" as defined in Section 115 of the DGCL. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court finds the choice of forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially and adversely affect our business, financial condition, and results of operations.

Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. In addition, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our certificate of incorporation provides that, unless we consent in writing to the selection of an alternate forum, the federal district court for the District of Delaware will be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the federal securities laws. We note that there is uncertainty as to whether a court would enforce the choice of forum provision with respect to claims under the federal securities laws, and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

We do not intend to pay any cash distributions or dividends on our Class A common stock in the foreseeable future.

We have never declared or paid any distributions or dividends on our Class A common stock. We currently intend to retain any future earnings and do not expect to pay any cash distributions or dividends in the foreseeable future. Any future determination to declare cash distributions or dividends will be made at the discretion of our board of directors, subject to applicable laws and provisions of our debt instruments and organizational documents, after taking into account our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant. As a result, capital appreciation in the price of our Class A common stock, if any, may be your only source of gain on an investment in our Class A common stock.

General Risk Factors

We face risks related to actual or threatened health epidemics or pandemics, such as the COVID-19 pandemic.

Our business could be adversely impacted by the effects of a widespread outbreak of contagious disease, such as the outbreak of respiratory illness caused by the COVID-19 pandemic. Any widespread outbreak of contagious disease, and other adverse public health developments, could cause disruption to, among other things, our ground operations at project sites, our manufacturing facilities and our suppliers and vendors and have a material and adverse effect on our business operations. If our manufacturing facilities and our suppliers or vendors are so affected, our supply chain, manufacturing and product shipments could be delayed, which could adversely affect our business, operations and customer relationships. In addition, health epidemics and pandemics have affected, and may in the future adversely affect, the economies and financial markets of many countries. Any of these consequences could materially adversely affect our business, results of operations and prospects.

If we fail to maintain effective internal controls over financial reporting, we may be unable to accurately or timely report our financial condition or results of operations, which may adversely affect our business.

Our management is responsible for establishing and maintaining effective internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with accounting principles generally accepted in the United States of America (“GAAP”). Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that we would prevent or detect a misstatement of our financial statements or fraud. Any failure to maintain an effective system of internal control over financial reporting could limit our ability to report our financial results accurately and timely or to detect and prevent fraud. A significant financial reporting failure or material weakness in internal control over financial reporting could cause a loss of investor confidence and decline in the market price of our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Risk Management and Strategy

Our cybersecurity strategy focuses on striking a balance between data barriers and access, and promoting vigilance among our employees, contractors, and business partners. We monitor and implement procedures, policies, and activities designed to manage our data and to maintain a high level of privacy and security within our systems. In 2023, we undertook an in-depth enterprise risk analysis and designed a program to address the most significant risks affecting our business. Our newly-developed enterprise risk program integrates cybersecurity.

Our cybersecurity processes include technical security controls, policy enforcement mechanisms, monitoring systems, tools and related services from third-party providers, and management oversight to assess, identify and manage risks from cybersecurity threats. We implement risk-based controls to protect our information, the information of our customers and other third parties, our information systems, our business operations, and our products and related services. We have an information security risk program structured according to the National Institute of Standards and Technology Cybersecurity Framework, industry best practices, privacy legislation, and other standards and regulations. Our program includes a defense-in-depth approach with multiple layers of security controls, including network segmentation, security monitoring, endpoint protection, and identity and access management, as well as data protection best practices and data loss prevention controls.

Through our cybersecurity program, we continuously monitor cybersecurity vulnerabilities and potential attack vectors and evaluate the potential operational and financial effects of any threat and of cybersecurity risk countermeasures made to defend against such threats.

In addition, we maintain specific policies and practices governing our third-party security risks, including our third-party assessment process. Under this assessment process, we gather information from certain third parties who contract with us and share or receive data, to help us assess potential risks associated with their security controls. We also generally require third parties to, among other things, maintain security controls to protect our confidential information and data, and notify us of material data breaches that may impact our data. We assess the risks from cybersecurity threats that impact select third-party service providers with whom we share personal identifying and confidential information. We continue to evolve our oversight processes to mature how we identify and manage cybersecurity risks associated with the services we procure from such third parties.

Our cybersecurity awareness program includes regular phishing simulations, and quarterly general cybersecurity awareness and data protection modules for all employees with network access, as well as more contextual and personalized modules for targeted users and roles. We complete annual internal security audits and vulnerability assessments of the Company's information systems and related controls, including systems affecting personal data. In addition, we leverage cybersecurity specialists to complete annual external audits and objective assessments of our cybersecurity program and practices, including our data protection practices, as well as to conduct targeted attack simulations. We have also purchased network security and cyber liability insurance in order to provide a level of financial protection, should a data breach occur. However, such insurance may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all.

In 2023, we did not experience any material information security breach or incident. However, future incidents could have a material impact on our business strategy, results of operations, or financial condition. For additional discussion of the risks posed by cybersecurity threats, see Item 1A. “Risk Factors—Failure to effectively utilize information technology systems or implement new technologies and the unauthorized disclosure of personal or sensitive data or confidential information, whether through a breach of our computer system or otherwise, could severely disrupt our business or reduce our sales or profitability” and “Compromises, interruptions or shutdowns of our information technology systems, including those managed by third parties, whether intentional or inadvertent, could lead to delays in our business operations and, if significant or extreme, affect our results of operations.”

Governance

Our board of directors reviews our management of cybersecurity risks, and our Audit Committee has been delegated primary oversight over such risks and the steps our management has taken to monitor and control these exposures. Our data privacy and security program is overseen by our IT Director who has presented to the Board on an annual basis. Our Audit Committee also receives briefings on significant cybersecurity incidents.

Our IT Director leads our dedicated Information Technology team (“IT team”), which executes on our data privacy and security programs and policies, and our Cyber Incident Response Team (“IRT”), which executes on our incident response procedures in the event of a data privacy or security event and conducts annual exercises simulating cybersecurity and data breach incidents. The IRT is comprised of internal members from the finance, legal, human resources, and operations departments, as well as external cybersecurity vendors and advisors. The members of our IRT understand the complexities of our business and are experienced in the financial, legal, regulatory and operational consequences of a cybersecurity incident or threat to the Company.

Our IT Director is Joe Rogers. He has 35 years of experience in information technology and cybersecurity, having been at the Company in his role as IT Director since 2022.

Item 2. Properties

The table below describes the material facilities owned or leased by Shoals Technologies Group, Inc. as of February 2024:

Location	Status	Approximate Square Feet	Uses
1400 Shoals Way, Portland, TN	Owned	103,200	Office, manufacturing, warehousing and shipping
1035 Fred White Blvd., Portland, TN	Owned	75,360	Office, warehousing and shipping
109 Kirby Drive, Portland, TN	Leased	219,767	Office, manufacturing, warehousing and shipping
215 Industrial Drive, Muscle Shoals, AL	Owned	16,910	Office, manufacturing, warehousing and shipping
1500 Shoals Way, Portland, TN	Leased	638,330	Office, manufacturing, warehousing and shipping

In February 2024, we announced the closing of our Poway, California facility as a result of a strategic assessment aimed at enhancing overall production and performance and at allowing for greater efficiency throughout our operations. The closure is expected to be completed in May of 2024.

We believe that our existing properties are in good condition and are sufficient and suitable for the conduct of our business for the foreseeable future. Nevertheless, on February 21, 2024, we announced our intention to expand and consolidate our existing Tennessee-based manufacturing and distribution operations into a new, more than 600,000 square foot facility in Portland, Tennessee over the next five years, and on February 7, 2024, we entered into a lease agreement for the new facility.

Item 3. Legal Proceedings

From time to time, we may be involved in litigation relating to claims that arise out of our operations and businesses and that cover a wide range of matters, including, among others, intellectual property matters, contract and employment claims, personal injury claims, product liability claims and warranty claims. Except as described under Litigation in Note 16 - Commitments and Contingencies, there are no claims or proceedings against us that we believe will have a material adverse effect on our business, financial condition, results of operations or cash flows. However, the results of any current or future litigation cannot be predicted with certainty, and regardless of the outcome, we may incur significant costs and experience a diversion of management resources as a result of litigation.

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

Our Class A common stock is traded on the NASDAQ Global Market under the symbol “SHLS”. Our Class B common stock is not listed nor traded on any stock exchange.

Holders of Record

As of February 21, 2024, there were two registered account holders of our Class A common stock. The number of record holders does not include persons who held shares of our Class A common stock in nominee or “street name” accounts through brokers. As of February 21, 2024, there were no shares of Class B common stock outstanding, and therefore, no registered account holders thereof.

Dividend Policy

We currently intend to retain all available funds and any future earnings for use in the operation of our business, and therefore we do not currently expect to pay any cash dividends. Any future determination to declare cash distributions or dividends will be made at the discretion of our board of directors, subject to applicable laws and provisions of our debt instruments and organizational documents, after taking into account our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

Securities Authorized for Issuance Under Our Equity Compensation Plans

Information regarding securities authorized for issuance under our equity compensation plans is incorporated herein by reference to Item 12, “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” of Part III of this Annual Report on Form 10-K.

Recent Sales of Unregistered Equity Securities

There were no unregistered sales of equity securities during the year ended December 31, 2023 that have not been previously reported in a Quarterly Report on Form 10-Q or in a Current Report on Form 8-K.

Use of Proceeds from Registered Securities

Not applicable.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Reserved

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

This Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”) should be read in conjunction with our consolidated financial statements and the related notes and other financial information included in this Annual Report on Form 10-K. In addition to historical financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. For this purpose, any statements contained in this Form 10-K that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, words such as “may,” “will,” “expect,” “believe,” “anticipate,” “estimate” or “continue” or comparable terminology are intended to identify forward-looking statements. Our actual results and timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those discussed under the sections of this Form 10-K captioned “Forward-Looking Statements” and “Risk Factors”. Management’s discussion and analysis relating to the fiscal year ended December 31, 2022 and the applicable year-to-year comparisons to the fiscal year ended December 31, 2021 are not included in this Annual Report on Form 10-K but can be found in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

This MD&A contains the presentation of Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted Earnings per Share, which are not presented in accordance with generally accepted accounting principles in the U.S. (“GAAP”). Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted Earnings per Share are being presented because management believes they provide investors and readers of this Form 10-K with additional insight into our operational performance relative to earlier periods and relative to our competitors. We do not intend Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, *Adjusted Net Income, and Adjusted Diluted Earnings per Share to be substitutes for any GAAP financial information. Readers of this Form 10-K should use Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted Earnings per Share only in conjunction with Gross Profit, Net Income, and Net Income Attributable to Shoals Technologies Group, Inc., the most closely comparable GAAP financial measures, as applicable. Reconciliations of Adjusted Gross Profit, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted Earnings per Share to the respective most closely comparable GAAP measure, as well as a calculation of Adjusted Gross Profit Percentage and Adjusted Diluted Weighted Average Shares Outstanding, are provided below, in "—Non-GAAP Financial Measures."*

Overview

We are a leading provider of EBOS solutions and components for solar, battery storage and EV charging applications, selling to customers primarily in the United States as well as internationally. EBOS encompasses all of the components that are necessary to carry the electric current produced by solar panels to an inverter and ultimately to the power grid. EBOS components are mission-critical products that have a high consequence of failure, including lost revenue, equipment damage, fire damage, and even serious injury or death. As a result, we generally believe customers prioritize reliability and safety over price when selecting EBOS solutions.

EBOS components that we produce include cable assemblies, inline fuses, combiners, disconnects, recombiners, wireless monitoring systems, junction boxes, transition enclosures, splice boxes and battery energy storage system ("BESS") cabinets. We derive the majority of our revenue from selling "system solutions" which are complete EBOS systems that include several of our products, many of which are customized for the customer's project. We believe our system solutions are unique in our industry because they integrate design and engineering support, proprietary components and innovative installation methods into a single offering that would otherwise be challenging for a customer to obtain from a single provider or at all.

We sell our solar products principally to EPCs that build solar energy projects. However, given the mission-critical nature of EBOS, the decision to use our products typically involves input from both the EPC and the owner of the solar energy project. The custom nature of our system solutions and the long development cycle for solar energy projects typically gives us 12 months or more of lead time to quote, engineer, produce and ship each order we receive, and we do not stock large amounts of finished goods.

Throughout fiscal year 2023, we have maintained focus on our growth strategy and continued strengthening our leadership position in the industry. We believe that as of December 31, 2023, we have worked with 13 of the top 15 solar EPCs, per Wood Mackenzie data from 2019-2023, and 11 of those EPCs used our combine-as-you-go system on their projects.

We derived 81.5% of our revenue from the sale of system solutions for the year ended December 31, 2023. For the same period, we derived substantially all of our revenue from customers in the U.S. As of December 31, 2023, we had $631.3 million of backlog and awarded orders. Backlog of $205.8 million represents signed purchase orders or contractual minimum purchase commitments with take-or-pay provisions and awarded orders of $425.5 million are orders we are in the process of documenting a contract for but for which a contract has not yet been signed. As of December 31, 2023, we believe approximately $205.8 million of backlog and $250.0 million of awarded orders have delivery dates in 2024. The remaining $175.5 million have planned delivery dates beyond 2024. Additionally, we believe more than 13% of our December 31, 2023 backlog and awarded orders relate to international projects. As of December 31, 2023, backlog and awarded orders increased by 47% relative to December 31, 2022 and decreased by 0.3% relative to September 30, 2023.

Elimination of Up-C Structure and Entity Simplification

In 2023, following a secondary offering of shares of Class A common stock by certain selling shareholders, all the holders of LLC Interests exchanged all the LLC Interests and corresponding shares of

Class B common stock of the Company beneficially owned by them into shares of Class A common stock of the Company. As a result, upon effectiveness of such exchanges, all of the LLC Interests in Shoals Parent LLC were held by the Company, no other holders owned LLC Interests and no Class B common stock was or is outstanding.

On July 1, 2023, the Company contributed 100% of its LLC Interests to Shoals Intermediate Parent, a wholly-owned subsidiary of the Company. Following the contribution, Shoals Parent LLC became a disregarded single member limited liability company, eliminating the Company's Up-C structure.

Following the elimination of the Up-C structure, effective December 31, 2023, the Company consummated an internal reorganization transaction whereby certain of the Company's wholly-owned subsidiaries merged with and into other subsidiaries. As part of this reorganization, Shoals Parent LLC merged with and into Shoals Intermediate Parent, with Shoals Intermediate Parent as the surviving corporation.

Trends and Uncertainties

During 2023 and 2022, significant levels of inflation resulted in increased energy prices, freight premiums, and other operating costs. These increases are expected to persist into 2024. As a result of inflation, during 2023 and 2022, the Federal Reserve increased interest rates. Such increased interest rates have resulted in higher interest rates associated with our Senior Secured Credit Agreement. The Federal Reserve may continue raising interest rates as long as high inflation persists, and any such additional increases will have a corresponding increase in the interest rates charged under our Senior Secured Credit Agreement. The eventual implications of higher government deficits and debt, tighter monetary policy, and potentially higher long-term interest rates may drive a higher cost of capital during our forecasted period.

In 2022 and to a lesser extent during 2023, as a consequence of macroeconomic events, our ability to obtain raw materials required to manufacture our components and system solutions from domestic and international suppliers, as well as our ability to secure inbound logistics to and from our facilities, were impacted, with additional delays linked to international border crossings and the associated approvals and documentation. The Company does not directly source a significant amount of raw materials from Europe. However, the Russia-Ukraine war has reduced the availability of certain materials that can be sourced in Europe and, as a result, increased global logistics costs for the procurement of some inputs and materials used in our products. We expect these trends to persist into 2024. In addition, changes over the last few years in the international relations and tariff regimes between the U.S. and China in response to various political issues and heightened uncertainty regarding China-Taiwan relations could significantly adversely impact the availability of parts and components to us, and, correspondingly, our ability to produce our components at targeted levels, although we did not experience such negative effects during 2023. We are continuously monitoring the condition of our supply chain and evaluating our procurement strategy to reduce any negative impact on our business, financial condition, and results of operations.

In response to supply chain constraints, in 2022 we increased certain raw materials inventory, partly to limit the potential impact of supply chain issues of raw materials in the near term. During 2023, we continued to monitor and reduce our inventory levels.

In 2023, the domestic utility scale solar market experienced slowing growth as a result of the costs of project financing, lingering uncertainty about the application of the Inflation Reduction Act of 2022 to solar projects, supply chain constraints and interconnection complications. We expect these trends to persist in 2024. However, even though we expect our growth rate to decline from the very high levels of the last few years, we believe that our domestic utility scale business will continue growing at an attractive rate.

As of December 31, 2023, other than increased interest expense, we did not experience material adverse effects on our financial results from the events and trends discussed above.

Recent Developments

On February 21, 2024, we announced our intention to expand and consolidate our existing manufacturing and distribution operations into a new, more than 600,000 square foot facility in Portland, Tennessee over the next five years. On February 7, 2024, we entered into a lease agreement for the new facility.

Separately, in February 2024, we announced the closing of our Poway, California facility as a result of a strategic assessment aimed at enhancing overall production and performance and at allowing for greater efficiency throughout our operations. The closure is expected to be completed in May 2024.

Key Components of Our Results of Operations

The following discussion describes certain line items in our consolidated statements of operations.

Revenue

We generate revenue from the sale of EBOS systems and components for homerun and combine-as-you-go architectures, battery storage, EV charging infrastructure, and O&M offerings. Our customers include EPCs, utilities, solar developers, independent power producers, solar module manufacturers and charge point operators. We derive the majority of our revenue from selling solar system solutions. When we sell a solar system solution, we enter into a contract with our customers covering the price, specifications, delivery dates and warranty for the products being purchased, among other things. Our contractual delivery period for solar system solutions can vary from one to three months whereas manufacturing typically requires a shorter time frame. Contracts for solar system solutions can range in value from several hundred thousand to several million dollars.

Our revenue is affected by changes in the price, volume and mix of solar system solutions and components purchased by our customers. The price and volume of our system solutions and components is driven by the demand for our solar system solutions and components, changes in product mix between homerun and combine-as-you-go EBOS, geographic mix of our customers, strength of competitors' product offerings, and availability of government incentives to the end-users of our products.

Our revenue growth is dependent on continued growth in the amount of solar energy projects constructed each year and our ability to increase our share of demand in the geographies where we currently compete and plan to compete in the future, as well as our ability to continue to develop and commercialize new and innovative products that address the changing technology and performance requirements of our customers.

Cost of Revenue and Gross Profit

Cost of revenue consists primarily of system solutions and components costs, including purchased raw materials, as well as costs related to shipping, customer support, product warranty, personnel and depreciation of manufacturing and testing equipment. Personnel costs in cost of revenue include both direct labor costs as well as costs attributable to any individuals whose activities relate to the transformation of raw materials or component parts into finished goods or the transportation of materials to the customer. Our product costs are affected by the underlying cost of raw materials, including copper and aluminum; component costs, including fuses, resin, enclosures, and cable; technological innovation; economies of scale resulting in lower component costs; and improvements in production processes and automation. We do not currently hedge against changes in the price of raw materials. Some of these costs, primarily indirect personnel and depreciation of manufacturing and testing equipment, are not directly affected by sales volume. Gross profit may vary from year to year and is primarily affected by our sales volume, product prices, product costs, product mix, customer mix, geographical mix, shipping method and warranty expense.

Operating Expenses

Operating expenses consist of general and administrative expenses as well as depreciation and amortization expense. Personnel-related costs are the most significant component of our operating expenses and include salaries, equity-based compensation, benefits, payroll taxes and commissions. The number of full-time employees in our general and administrative departments increased from 115 to 149 from December 31, 2022 to December 31, 2023, and we expect to hire new employees in the future to support our growth. The timing of these additional hires could materially affect our operating expenses in any particular period, both in absolute dollars and as a percentage of revenue.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries, equity-based compensation expense, employee benefits and payroll taxes related to our executives, and our sales, finance, human resources, information technology, engineering and legal organizations, travel expenses, facilities costs, marketing expenses, insurance, bad debt expense and fees for professional services. Professional services consist of audit, tax, accounting, legal, internal controls, information technology, investor relations and other costs. We expect to increase our sales and marketing personnel as we expand into new geographic markets. Substantially all of our sales are currently in the U.S. We currently have a sales presence in the U.S., Asia-Pacific, Europe, Latin America, and Africa. We intend to grow our sales presence and marketing efforts in current geographic markets and expand to additional countries in the future.

Depreciation

Depreciation in our operating expenses consists of costs associated with property, plant and equipment ("PP&E") not used in manufacturing our products. We expect that as we increase both our revenue and the number of our general and administrative personnel, we will invest in additional PP&E to support our growth resulting in additional depreciation expense.

Amortization

Amortization of intangibles consists of amortization of customer relationships, developed technology, trade names, backlog and noncompete agreements over their expected period of use.

Non-operating Expenses

Interest Expense

Interest expense consists of interest and other charges paid in connection with our Senior Secured Credit Agreement.

Payable Pursuant to the Tax Receivable Agreement Adjustment

Tax Receivable Agreement ("TRA") adjustment consists of changes to our tax rate since the initial recording of the liability related to the TRA.

Gain on Termination of Tax Receivable Agreement

Gain on termination of TRA is related to the early termination and settlement of the TRA, as discussed in Note 18 - Payable Pursuant to the Tax Receivable Agreement of the consolidated financial statements. The TRA was terminated in December 2022.

Income Tax Expense

Shoals Technologies Group, Inc. is subject to U.S. federal and state income tax in multiple jurisdictions. Prior to the July 1, 2023 contribution described in Note 17 - Income Taxes, Shoals Parent LLC was a pass-through entity for federal income tax purposes but incurred income tax in certain state jurisdictions. On July 1, 2023, the Company contributed 100% of its LLC Interests in Shoals Parent LLC to its wholly-owned subsidiary, Shoals Intermediate Parent, and following the contribution, Shoals Parent LLC became a disregarded single member limited liability company, eliminating the Up-C structure.

Results of Operations

Set forth below is a comparison of the results of operations and changes in financial condition for the years ended December 31, 2023 and 2022.

The following table summarizes our results of operations (dollars in thousands):

	Year Ended December 31,		2023 vs 2022	
	2023	2022	$ variance	% variance
Revenue	$ 488,939	$ 326,940	$ 161,999	50 %
Cost of revenue	320,635	195,629	125,006	64 %
Gross profit	168,304	131,311	36,993	28 %
Operating expenses				
General and administrative expenses	80,719	55,908	24,811	44 %
Depreciation and amortization	8,550	9,073	(523)	(6)%
Total operating expenses	89,269	64,981	24,288	37 %
Income from operations	79,035	66,330	12,705	19 %
Interest expense, net	(24,100)	(18,538)	5,562	30 %
Payable pursuant to the tax receivable agreement adjustment	—	(6,675)	(6,675)	(100)%
Gain on termination of tax receivable agreement	—	110,883	110,883	(100)%
Income before income taxes	54,935	152,000	(97,065)	(64)%
Income tax expense	(12,274)	(8,987)	3,287	37 %
Net income	42,661	143,013	(100,352)	(70)%
Less: net income attributable to non-controlling interests	2,687	15,402	(12,715)	(83)%
Net income attributable to Shoals Technologies Group, Inc.	$ 39,974	$ 127,611	$ (87,637)	(69)%

Comparison of the years ended December 31, 2023 and 2022

Revenue

Revenue increased by $162.0 million, or 50%, for the year ended December 31, 2023 as compared to the year ended December 31, 2022, driven by higher sales volumes as a result of increased demand for solar EBOS generally and our combine-as-you-go system solutions specifically. Our total number of customers, along with the number of combine-as-you-go system solutions projects, increased during the year ended December 31, 2023 as compared to the year ended December 31, 2022. We believe expanding customer recognition of the benefits of our combine-as-you-go system solutions resulted in increased demand for our products.

Cost of Revenue and Gross Profit

Cost of revenue increased by $125.0 million, or 64%, for the year ended December 31, 2023 as compared to the year ended December 31, 2022, driven by $61.7 million of wire insulation shrinkback expense recorded during the year ended December 31, 2023. The remaining increase is driven by the increase in revenue. Gross profit as a percentage of revenue was 34.4% and 40.2%, respectively, during the years ended December 31, 2023 and 2022. The decrease in gross profit as a percentage of revenue was driven by the increase in wire insulation shrinkback expense and was offset by a higher portion of overall revenue coming from our combine-as-you-go system solutions, which carry higher margins than our other products, slightly lower raw materials input costs, increased leverage on fixed costs, and efficiencies gained in operations.

Operating Expenses

General and Administrative

General and administrative expenses increased $24.8 million, or 44%, for the year ended December 31, 2023 as compared to the year ended December 31, 2022. The increase in general and administrative expenses was the result of an increase in wages, benefits and related taxes of $9.9 million due to increased employee headcount to support our growth, as well as an increase in equity-based compensation of $4.1 million related to termination of our former CEO for disability and an increase in employee headcount, and an increase in professional fees of $7.3 million, related to a $3.3 million increase in legal fees incurred in connection with the ongoing patent infringement litigation, a $1.3 million increase in legal fees related to wire insulation shrinkback litigation, and $2.7 million of other miscellaneous professional services.

Depreciation and Amortization

Depreciation and amortization expense decreased by $0.5 million, or 6%, for the year ended December 31, 2023 as compared to the year ended December 31, 2022, due to definite lived intangible assets that became fully amortized during 2022 and 2023.

Interest Expense

Interest expense, net increased by $5.6 million or 30%, for the year ended December 31, 2023 as compared to the year ended December 31, 2022, due to increased borrowing rates. During 2022 and 2023, the Federal Reserve increased interest rates resulting in higher interest rates associated with our Senior Secured Credit Agreement. The increase in interest expense was offset by a decrease in the weighted average outstanding balance of the Revolving Credit Facility and Term Loan Facility during the year ended December 31, 2023 compared to the year ended December 31, 2022.

Payable Pursuant to the Tax Receivable Agreement Adjustment

Payable pursuant to the TRA adjustment decreased $6.7 million or 100% for the year ended December 31, 2023 as compared to the year ended December 31, 2022, due to termination and settlement of the TRA on December 6, 2022.

Gain on Termination of Tax Receivable Agreement

Gain on termination of TRA for the year ended December 31, 2022 totaled $110.9 million, which is equal to the difference between the carrying value of the payable pursuant to the TRA recorded as of the date of amendment to the TRA, which permitted its termination, net of related fees. There was no gain on termination of TRA for the year ended December 31, 2023.

Income Tax Expense

Income tax expense was $12.3 million for the year ended December 31, 2023 as compared to income tax expense of $9.0 million for the year ended December 31, 2022. Our effective income tax rate for the year ended December 31, 2023 and 2022 was 22.3% and 5.9%, respectively. The increase in the effective income tax rate was due to a reduction in permanent differences as a result of net income attributable to non-controlling interests, as well as the gain on termination of TRA recorded during 2022, and an increase in the valuation allowance during 2023 compared to a decrease in the valuation allowance during 2022. These increases were offset by a decrease related to the elimination of the Up-C structure on July 1, 2023, as discussed in more detail in 17 - Income Taxes.

Non-GAAP Financial Measures

Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted Earnings per Share ("EPS")

We define Adjusted Gross Profit as gross profit plus wire insulation shrinkback expenses. We define Adjusted Gross Profit Percentage as Adjusted Gross Profit divided by revenue. We define Adjusted EBITDA as net income plus (i) interest expense, net, (ii) income tax expense, (iii) depreciation expense, (iv) amortization of intangibles, (v) payable pursuant to the TRA adjustment, (vi) gain on termination of TRA, (vii) loss on debt repayment, (viii) equity-based compensation, (ix) acquisition-related expenses, (x) COVID-19 expenses, (xi) non-recurring and other expenses, (xii), wire insulation shrinkback expenses, and (xiii) wire insulation shrinkback litigation expenses. We define Adjusted Net Income as net income attributable to Shoals Technologies Group, Inc. plus (i) net income impact from assumed exchange of Class B common stock to Class A common stock as of the beginning of the earliest period presented, (ii) adjustment to the provision for income tax, (iii) amortization of intangibles, (iv) amortization of deferred financing costs, (v) payable pursuant to the TRA adjustment, (vi) gain on termination of TRA, (vii) loss on debt repayment, (viii) equity-based compensation, (ix) acquisition-related expenses, (x) COVID-19 expenses, (xi) non-recurring and other expenses, (xii) wire insulation shrinkback expenses, and (xiii) wire insulation shrinkback litigation expenses, all net of applicable income taxes. We define Adjusted Diluted EPS as Adjusted Net Income divided by the diluted weighted average shares of Class A common stock outstanding for the applicable period, which assumes the exchange of all outstanding Class B common stock for Class A common stock as of the beginning of the earliest period presented.

Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS are intended as supplemental measures of performance that are neither required by, nor presented in accordance with, GAAP. We present Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS because we believe they assist investors and analysts in comparing our performance across reporting periods on a consistent basis by excluding items that we do not believe are indicative of our core operating performance. In addition, we use Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS: (i) as factors in evaluating management's performance when determining incentive compensation, as applicable; (ii) to evaluate the effectiveness of our business strategies; and (iii) because our credit agreement uses measures similar to Adjusted EBITDA, Adjusted Net Income and Adjusted Diluted EPS to measure our compliance with certain covenants.

Among other limitations, Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS do not reflect our cash expenditures, or future requirements for capital expenditures or contractual commitments; do not reflect the impact of certain cash charges resulting from matters we consider not to be indicative of our ongoing operations; and may be calculated by other companies in our industry differently than we do or not at all, which may limit their usefulness as comparative measures.

Because of these limitations, Adjusted Gross Profit, Adjusted Gross Profit Percentage, Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS should not be considered in isolation or as substitutes for performance measures calculated in accordance with GAAP. You should review the reconciliation of gross profit to Adjusted Gross Profit and Adjusted Gross Profit Percentage, net income (loss) to Adjusted EBITDA, and net income (loss) attributable to Shoals Technologies Group, Inc. to Adjusted Net Income and Adjusted Diluted EPS below and not rely on any single financial measure to evaluate our business.

Reconciliation of Gross Profit to Adjusted Gross Profit and Adjusted Gross Profit Percentage (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Revenue	$ 488,939	$ 326,940	$ 213,212
Cost of revenue	320,635	195,629	130,567
Gross profit	$ 168,304	$ 131,311	$ 82,645
Gross profit percentage	34.4%	40.2%	38.8%
Wire insulation shrinkback expenses [a]	$ 61,705	$ —	$ —
Adjusted gross profit	$ 230,009	$ 131,311	$ 82,645
Adjusted gross profit percentage	47.0%	40.2%	38.8%

Reconciliation of Net Income to Adjusted EBITDA (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Net income	$ 42,661	$ 143,013	$ 3,944
Interest expense, net	24,100	18,538	14,549
Income tax expense	12,274	8,987	86
Depreciation expense	2,612	1,858	1,701
Amortization of intangibles	7,917	8,651	8,352
Payable pursuant to the TRA adjustment [b]	—	6,675	1,663
Gain on termination of TRA	—	(110,883)	—
Loss on debt repayment	—	—	15,990
Equity-based compensation	20,862	16,108	11,286
Acquisition-related expenses	—	42	2,349
COVID-19 expenses [c]	—	—	339
Non-recurring and other expenses [d]	—	—	2,598
Wire insulation shrinkback expenses [a]	61,705	—	—
Wire insulation shrinkback litigation expenses [e]	1,260	—	—
Adjusted EBITDA	$ 173,391	$ 92,989	$ 62,857

Reconciliation of Net Income Attributable to Shoals Technologies Group, Inc. to Adjusted Net Income (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Net income attributable to Shoals Technologies Group, Inc.	$ 39,974	$ 127,611	$ 2,348
Net income impact from assumed exchange of Class B common stock to Class A common stock [f]	2,687	15,402	1,596
Adjustment to the provision for income tax [g]	(653)	(3,726)	(456)
Tax effected net income	42,008	139,287	3,488
Amortization of intangibles	7,917	8,651	8,352
Amortization of deferred financing costs	2,165	1,365	1,230
Payable pursuant to the TRA adjustment [b]	—	6,675	1,663
Gain on termination of TRA	—	(110,883)	—
Loss on debt repayment	—	—	15,990
Equity-based compensation	20,862	16,108	11,286
Acquisition-related expenses	—	42	2,349
COVID-19 expenses [c]	—	—	339
Non-recurring and other expenses [d]	—	—	2,598
Wire insulation shrinkback expenses [a]	61,705	—	—
Wire insulation shrinkback litigation expenses [e]	1,260	—	—
Tax impact of adjustments [h]	(24,604)	1,158	(11,381)
Adjusted Net Income	$ 111,313	$ 62,403	$ 35,914

[a] For the year ended December 31, 2023 represents, (i) $59.1 million wire insulation shrinkback warranty expenses related to the identification, repair and replacement of a subset of wire harnesses presenting unacceptable levels of wire insulation shrinkback, and (ii) $2.6 million of inventory write-downs of the defective red wire. We consider expenses incurred in connection with the identification, repair and replacement of the impacted wire harnesses as well as the write-down of related inventory distinct from normal, ongoing service identification, repair and replacement expenses that would be reflected under ongoing warranty expenses within the operation of our business and normal write-downs of inventory, which we do not exclude from our non-GAAP measures. In the future, we also intend to exclude from our non-GAAP measures the benefit of liability releases, if any. We believe excluding expenses from these discrete liability events provides investors with a better view of the operating performance of our business and allows for comparability through periods. See Note 9 - Warranty Liability, in our consolidated financial statements included in this Annual Report on Form 10-K for more information.

[b] Represents an adjustment to eliminate the adjustment of the payable pursuant to the TRA.

[c] Represents costs incurred as a direct impact from the COVID-19 pandemic, disinfecting and reconfiguration of facilities, medical professionals to conduct daily screenings of employees and direct legal costs associated with the pandemic.

[d] Represents certain costs associated with non-recurring professional services, our prior private equity owners' expenses and other costs.

[e] For the year ended December 31, 2023 represents $1.3 million of expenses incurred in connection with the lawsuit initiated by the Company against the supplier of the defective red wire. We consider this litigation distinct from ordinary course legal matters given the expected magnitude of the expenses, the nature of the allegations in the Company's complaint, the amount of damages sought, and the impact of

the matter underlying the litigation on the Company's financial results. In the future, we also intend to exclude from our non-GAAP measures the benefit of recovery, if any. We believe excluding expenses from these discrete litigation events provides investors with a better view of the operating performance of our business and allows for comparability through periods. See Note 16 - Commitments and Contingencies, in our consolidated financial statements included in this Annual Report on Form 10-K for more information.

(f) Reflects net income to Class A common stock from assumed exchange of corresponding shares of our Class B common stock held by our founder and management.

(g) Shoals Technologies Group, Inc. is subject to U.S. Federal income taxes, in addition to state and local taxes. The adjustment to the provision for income tax reflects the effective tax rates below, assuming Shoals Technologies Group, Inc. owned 100% of the units in Shoals Parent LLC prior to March 10, 2023.

	Year Ended December 31,		
	2023	2022	2021
Statutory U.S. Federal income tax rate	21.0 %	21.0 %	21.0 %
Permanent adjustments	1.9 %	0.2 %	1.2 %
State and local taxes (net of federal benefit)	3.3 %	3.0 %	6.4 %
Effective income tax rate for Adjusted Net Income	26.2 %	24.2 %	28.6 %

(h) Represents the estimated tax impact of all Adjusted Net Income add-backs, excluding those which represent permanent differences between book versus tax.

Reconciliation of Diluted Weighted Average Shares Outstanding to Adjusted Diluted Weighted Average Shares Outstanding (in thousands, except per share):

	Year Ended December 31,		
	2023	2022	2021
Diluted weighted average shares of Class A common stock outstanding, excluding Class B common stock	164,504	114,803	99,507
Assumed exchange of Class B common stock to Class A common stock	5,698	52,828	67,429
Adjusted diluted weighted average shares outstanding	170,202	167,631	166,936
Adjusted Net Income	$ 111,313	$ 62,403	$ 35,914
Adjusted Diluted EPS	$ 0.65	$ 0.37	$ 0.22

Liquidity and Capital Resources

We finance our operations primarily with operating cash flows and current and long-term borrowings. Our ability to generate positive cash flow from operations is dependent on the strength of our gross profits as well as our ability to quickly turn our working capital. Based on our past performance and current expectations, we believe that operating cash flows and availability under our Revolving Credit Facility will be sufficient to meet our near and long-term future cash needs.

We generated cash from operating activities of $92.0 million during the year ended December 31, 2023, as compared to cash provided by (used in) operating activities of $39.5 million and $(4.1) million, respectively, during the years ended December 31, 2022 and 2021. As of December 31, 2023, our cash and cash equivalents were $22.7 million, an increase from $8.8 million as of December 31, 2022. As of December 31, 2023 we had outstanding borrowings of $183.8 million, a decrease from $243.3 million as of December 31, 2022. As of December 31, 2023 we also had $109.7 million available for additional borrowings under our $150.0 million Revolving Credit Facility.

On December 27, 2023 and January 19, 2024 we used proceeds from the Revolving Credit Facility and cash on hand to make $50.0 million and $100.0 million, respectively, voluntary prepayments of outstanding borrowings under the Term Loan Facility. Following the January prepayment, we had outstanding borrowings of $168.8 million and $24.7 million available for additional borrowings under our Revolving Credit Facility.

In 2023, we also used approximately $4.7 million of cash to pay for expenses related to the identification, repair and replacement of the wire harnesses impacted in connection with the wire insulation shrinkback matter. We expect to continue spending significant amounts of cash in connection thereof. For more information, see Note 9 - Warranty Liability in our consolidated financial statements.

	Year Ended December 31,		
	2023	2022	2021
Net cash provided by (used in) operating activities	$ 91,955	$ 39,455	$ (4,083)
Net cash used in investing activities	(10,847)	(3,657)	(17,035)
Net cash provided by (used in) financing activities	(67,167)	(36,589)	20,602
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 13,941	$ (791)	$ (516)

Operating Activities

For the year ended December 31, 2023, cash provided by operating activities was $92.0 million, due to operating results that included $42.7 million of net income, which included $109.8 million of non-cash expense, along with an increase of $9.6 million in accounts payable and accrued expenses and other, and a decrease of $15.0 million in inventory. These cash inflows were partially offset by an increase of $80.3 million in accounts receivable and unbilled receivables, which is primarily driven by an increase in revenues, $5.2 million cash outflow related to warranty liability and a decrease of $1.0 million in deferred revenue.

For the year ended December 31, 2022, cash provided by operating activities was $39.5 million, due to operating results that included $143.0 million of net income, which included $65.6 million of non-cash income, an increase of $21.4 million in deferred revenue, and an increase of $10.7 million in accrued expenses and other. These cash inflows were partially offset by an increase in inventory of $36.9 million as a result of increasing our raw materials inventory to support growth and reduce the likelihood of supply chain issues from our raw materials suppliers, an increase of $22.4 million in accounts receivable and unbilled receivables, which is primarily driven by an increase in revenues, and a decrease of $11.0 million in accounts payable.

Investing Activities

For the year ended December 31, 2023, net cash used in investing activities was $10.8 million, of which $10.6 million was attributable to the purchase of property and equipment.

For the year ended December 31, 2022, net cash used in investing activities was $3.7 million, of which $3.2 million was attributable to the purchase of property and equipment.

Financing Activities

For the year ended December 31, 2023, net cash used in financing activities was $67.2 million, due to $51.5 million in payments on the Term Loan, $8.0 million in net payments on the Revolving Credit Facility, $2.6 million in distributions to our non-controlling interest holders and $3.9 million in taxes related to net share settled equity awards.

For the year ended December 31, 2022, net cash used in financing activities was $36.6 million, primarily due to $58.0 million paid to terminate the TRA, as discussed in Note 18 of the consolidated financial statements, plus related fees of $1.9 million, $2.0 million in payments on the Term Loan, $7.1 million in net payments on the Revolving Credit Facility, $7.8 million in distributions to our non-controlling interest holders, $1.5 million of offering costs, and $1.3 million in taxes related to net share settled equity awards. These cash outflows are partially offset by $42.9 million received in connection with the issuance of Class A common stock sold in follow-on offering, net of underwriting discounts and commissions.

A discussion and analysis covering historical cash flows for the year ended December 31, 2021 can be found in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Debt Obligations

For a discussion of our debt obligations see Note 10 - Long-Term Debt in our consolidated financial statements included in this Annual Report on Form 10-K.

Surety Bonds

For a discussion of our surety bond obligations see Note 16 - Commitments and Contingencies in our consolidated financial statements included in this Annual Report on Form 10-K.

Product Warranty

For a discussion of our product warranties see Note 9 - Warranty Liability in our consolidated financial statements included in this Annual Report on Form 10-K.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with GAAP. The preparation of consolidated financial statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from the estimates made by our management. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management’s judgments and estimates. Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effects of matters that are inherently uncertain.

Revenue Recognition

We primarily recognize revenue over time as a result of the continuous transfer of control of our product to the customer using the output method based on units manufactured. This continuous transfer of control to the customer is supported by clauses in the contracts that provide right to payment of the transaction price associated with work performed to date on products that do not have an alternative use. We believe that recognizing revenue using the output method based on units manufactured best depicts the extent of transfer of control to the customer. If revenue were recognized at a point in time rather than over time, then for the year ended December 31, 2023, net income would be $17.1 million lower, and EPS - basic and diluted would decrease by $0.10.

In certain instances the promised goods do have an alternative use. In these instances we recognize revenue when the customer obtains control of the product. Contracts of this nature typically include customer acceptance clauses, which results in revenue recognition occurring upon customer acceptance.

Depending on the size of project, the manufacturing process generally takes from less than one week to four months to complete production. The accounting for each contract involves a judgmental process of estimating total sales, costs, and profit for each performance obligation. Cost of revenue is recognized based on the unit of production. The amount reported as revenue is determined by adding a proportionate amount of the estimated profit to the amount reported as cost of revenue.

We have elected to adopt certain practical expedients and exemptions as allowed under the revenue recognition guidance such as (i) recording sales commissions as incurred because the amortization period is less than one year, (ii) excluding any collected sales tax amounts from the calculation of revenue, and (iii) accounting for shipping and handling activities that are incurred after the customer has obtained control of the product as fulfillment costs rather than a separate service provided to the customer for which consideration would need to be allocated.

Payable Pursuant to the Tax Receivable Agreement

As discussed in Note 18 to the consolidated financial statements, we were party to a TRA, dated January 29, 2021, under which we were contractually committed to pay the TRA Owners 85% of the amount of the tax benefits, if any, that we were deemed to realize, as a result of certain transactions. Amounts payable under the TRA were contingent upon, among other things, (i) generation of future taxable income over the term of the TRA and (ii) future changes in tax laws.

On November 29, 2022, the Company entered into an amendment to the TRA (the “TRA Amendment”), pursuant to which the parties thereto agreed to grant the Company a right to terminate the TRA until December 31, 2022 (the “TRA Termination Right”) in exchange for a termination consideration of $58.0 million payable in cash (the “TRA Termination Consideration”). The Company exercised its TRA Termination Right, and the TRA was terminated on December 6, 2022.

As of the effective date of the TRA Amendment, we concluded it was probable that the expected payments related to the payable pursuant to the TRA had changed. As a result of this change, the Company remeasured the payable pursuant to the TRA to $58.0 million. We analyzed the relevant accounting guidance and considered the nature of the TRA termination and the involved parties in order to determine if the transaction should be recorded as a gain in the Consolidated Statement of Operations or as a stockholder contribution. Ultimately, we determined that, despite the involvement of the Company’s founder, the transaction was performed at arm's length, both parties received the same payment based upon ownership percentage, and therefore, the gain should be recorded in the Consolidated Statement of Operations as of the effective date of the TRA Amendment. If the transaction had been accounted for as a stockholder contribution rather than a gain in the Consolidated Statement of Operations, then for the year ended December 31, 2022 net income would have been $110.9 million lower, EPS - basic would have decreased by $0.96 and EPS - diluted would have decreased by $0.70.

Equity-Based Compensation

2021 Long-term Incentive Plan

The Company recognizes equity-based compensation expense based on the equity award’s grant date fair value. The determination of the fair value of equity awards issued to employees of the Company is based upon the closing market price of the Company's common stock on the day prior to the grant date. Equity-based compensation expense related to performance stock units is recognized if it is probable that the performance conditions will be satisfied. The Company accounts for forfeitures as they occur. The grant date fair value of each unit is amortized on a straight-line basis over the requisite service period, including those units with graded vesting. However, the amount of equity-based compensation at any date is at least equal to the portion of the grant date fair value of the award that is vested.

Income Taxes

We record valuation allowances against our deferred tax assets when it is more likely than not that all or a portion of a deferred tax asset will not be realized. In making such determination, we consider all available evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and results of operations. We routinely evaluate the realizability of our deferred tax assets by assessing the likelihood that our deferred tax assets will be recovered based on all available positive and negative evidence. Estimating future taxable income is inherently uncertain and requires judgment. In projecting future taxable income, we consider our historical results and incorporate certain assumptions, including revenue growth and operating margins, among others. As of December 31, 2023, we had $468.2 million of deferred tax assets, net of a $1.0 million valuation allowance related to land and other non-amortizable intangibles. Other than the valuation allowance related to land and other non-amortizable intangibles, we expect to realize future tax benefits related to the utilization of these assets. If we determine in the future that we will not be able to fully utilize all or part of these deferred tax assets, we would increase our valuation allowance through earnings in the period the determination was made, which would have an adverse effect on our results of operations and earnings in future periods.

Product Warranty

General Warranty

The Company offers an assurance type warranty for its products against manufacturer defects and does not contain a service element. For these assurance type warranties, a provision for estimated future costs related to warranty expense is recorded when they are probable and reasonably estimable. This provision is based on historical information on the nature, frequency and average cost of claims for each product line. When little or no experience exists for an immature product line, the estimate is based on comparable product lines. Specific reserves are established once an issue is identified with the amounts for such reserves based on the estimated cost of correction. These estimates are re-evaluated on an ongoing basis using best-available information and revisions to estimates are made as necessary. These estimates are inherently uncertain given our relatively short history of sales, and actual results that differ from our assumptions and judgments could have a material adverse effect on our business, financial condition and results of operations.

Wire Insulation Shrinkback Warranty

The Company has been notified by certain customers that a subset of wire harnesses used in its EBOS solutions is presenting unacceptable levels of wire insulation shrinkback. Based upon the Company’s ongoing assessment, the Company currently believes the wire insulation shrinkback is related to defective red wire manufactured by Prysmian. As of December 31, 2023, based on the Company’s continued analysis, which included better visibility into the scope of affected sites and potential solutions, including identification, repair and replacement of harnesses, the Company determined that a potential range of loss was both probable and reasonably estimable and updated its estimate of potential losses from previously provided estimates. Based on the Company’s continued analysis of information available as of the date of this Annual Report, the estimate of potential losses remains unchanged from the estimate provided as of September 30, 2023. As no amount within the current range of loss appears to be a better estimate than any other amount, the Company has recorded a warranty liability and related expense representing the low end of the range of potential loss of $59.7 million. The high-end of the range of potential loss is $184.9 million, which is $125.2 million higher than the amount we have recorded. As of December 31, 2023, the Company recorded a warranty liability of $54.9 million related to this matter. The Company recorded total warranty expense related to this matter of $59.2 million and $0.5 million, respectively, during years ended December 31, 2023 and 2022.

The estimated range is based on several assumptions, including the potential magnitude of EPC's labor cost to identify and perform the repair and replacement of impacted harnesses, estimated failure rates, materials replacement cost, planned remediation method, inspection costs, and other various assumptions. These assumptions are highly subjective and require significant management judgment. As a result, these assumptions could prove to be materially different from our current estimate, causing us to incur substantial unanticipated expense to identify, repair or replace the defective wire or to compensate customers. As additional information has become available or becomes available, the Company has increased and may continue to increase or decrease its estimated warranty liability and related expense from its current estimate, and such increase or decrease may be material.

As of December 31, 2023, a 10% increase in harness installation costs, failure rate, materials replacement cost, and inspection costs would have resulted in an increase of the low end of the range of potential losses of $2.4 million, $1.2 million, $1.4 million, and $0.6 million, respectively. A 10% increase in harness installation costs and materials replacement cost would have resulted in an increase of the high end of the range of potential loss of $12.0 million and $5.8 million, respectively. Additionally, changes to the planned remediation method could also have a material impact on the warranty liability.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in steel, aluminum and copper prices and customer concentrations. We do not hold or issue financial instruments for trading purposes.

Concentrations of Major Customers

Our customers include EPCs, utilities, solar developers, and solar module manufacturers, but we derive the majority of our revenue from the sale of products to EPCs. Our EPC customers typically construct multiple projects for several different owners. One customer contributed approximately 36.3% of our total revenue for the year ended December 31, 2023 and 37.5% of accounts receivable as of December 31, 2023. Our five largest customers contributed approximately 56.9% of our total revenue for the year ended December 31, 2023 and 65.5% of accounts receivable as of December 31, 2023. The majority of our contracts require customer deposits ranging from 10 to 20% of the contract value. We continually evaluate our reserves for potential credit losses and establish reserves for such losses. The loss of this large customer or any significant customer could have a material adverse effect on our financial conditions and results of operations.

Commodity Price Risk

We are subject to risk from fluctuating market prices of certain commodity raw materials, including copper, that are used in our products. Prices of these raw materials may be affected by supply restrictions, inflation or other market factors from time to time, and we do not enter into hedging arrangements to mitigate commodity risk. Significant price increases for these raw materials could reduce our operating margins if we are unable to recover such increases from our customers, in the form of increased prices, which could harm our business, financial condition and results of operations.

Interest Rate Risk

As of December 31, 2023, our long-term debt totaled $183.8 million. We have interest rate exposure with respect to the entire balance as it is all variable interest rate debt. A 100 basis point increase/decrease in interest rates would impact our expected annual interest expense for the next 12 months by approximately $1.8 million.

Item 8. Financial Statements and Supplementary Data

The financial statements required by this item are included in this Annual Report on Form 10-K beginning on page F-1.

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

None.

Item 9A. Controls and Procedures

Management's Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2023. Based upon the evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2023, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as such term as defined in Exchange Act Rule 13a-15(f). Internal control over financial reporting is a process designed under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the U.S.

As of December 31, 2023, our management assessed the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013 Framework). Based on this assessment, our management concluded that, as of December 31, 2023, our internal control over financial reporting was effective based on those criteria.

Attestation Report of the Registered Public Accounting Firm

BDO USA, P.C, the independent registered public accounting firm that audited our financial statements included elsewhere in this Form 10-K, has issued an attestation report on our internal control over financial reporting. That report appears in "Item 8. Financial Statements and Supplementary Data" and is incorporated by reference to this Item 9A.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) or 15d-15(f) of the Exchange Act) that occurred during the fourth quarter of 2023 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information

Director Appointment

On February 27, 2024, the Board appointed Brandon Moss, the Company's Chief Executive Officer, as a member of the Board based on Mr. Moss's skills, qualifications and contributions to the Company and the Board since he began serving as Chief Executive Officer. Mr. Moss will serve as a Class III director until the Company's Annual Meeting of Stockholders to be held in 2024, and until such time as his successor is duly elected and qualified, or until his earlier death, resignation or removal. In connection with Mr. Moss's appointment the Board increased the number of directors on the Board from seven to eight.

The Company is not aware of any related party transactions or relationships between Mr. Moss and the Company that would require disclosure under Item 404(a) of Regulation S-K. Mr. Moss was not appointed as a director based on any arrangement or understanding between Mr. Moss and any other persons.

CAO Appointment

On February 27, 2024, the Company appointed Inez Lund as its Chief Accounting Officer, effective March 1, 2024. In this position, Ms. Lund will assume the role of the Company's principal accounting officer from Dominic Bardos, who will continue to serve as the Company's Chief Financial Officer.

Ms. Lund, age 58, has most recently served as the Company's Controller since December 2021, and initially joined the Company in May 2021 as Tax Director. Before joining the Company, Ms. Lund was Senior Manager, Global Compliance and Reporting at Ernst & Young LLP between December 2019 and May 2021. From September 2014 to December 2019, Ms. Lund held several positions with American International Group, Inc., including Associate Director of Tax and Manager, AIG Global Investments Tax Group. Ms. Lund earned a Master's degree in Professional Accountancy and a Bachelor's degree in Accounting from University of Nebraska, Lincoln.

In connection with Ms. Lund's appointment as Chief Accounting Officer of the Company, the Board has approved the following compensation for Ms. Lund, effective as of March 1, 2024: (i) an annual base salary of $300,000; (ii) an annual bonus with a target opportunity equal to 50% of base salary; and (iii) an equity award with respect to fiscal year 2024, with a target value equal to $205,000. The foregoing equity award will be granted in the form approved by the Compensation Committee of the Board under, and subject to, the terms and conditions of the Shoals Technologies Group, Inc. 2021 Long-Term Incentive Plan, and will vest in accordance with the applicable award agreements. Ms. Lund will also be entitled to participate in the Shoals Technologies Group, Inc. Executive Severance Plan.

Ms. Lund does not have any family relationships with any director, executive officer or person nominated or chosen by the Company to become a director or executive officer of the Company. The Company is not aware of any related transactions or relationships between Ms. Lund and the Company that would require disclosure under Item 404(a) of Regulation S-K. There are no arrangements or understandings between Ms. Lund and any other person pursuant to which Ms. Lund was selected as an officer of the Company.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required to be disclosed by this item is incorporated by reference to the Company's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Annual Report.

Item 11. Executive Compensation

The information required to be disclosed by this item is incorporated by reference to the Company's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Annual Report.

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

The information required to be disclosed by this item is incorporated by reference to the Company's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Annual Report.

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

The information required to be disclosed by this item is incorporated by reference to the Company's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Annual Report.

Item 14. Principal Accountant Fees and Services

The information required to be disclosed by this item is incorporated by reference to the Company's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Annual Report.

PART IV

Item 15. Exhibit and Financial Statement Schedules

(a)(1) Financial Statements.

The financial statements and supplementary data required by this item are included after the Signature page of this Annual Report on Form 10-K beginning on page F-1.

(a)(2) Financial Statement Schedules.

All schedules have been omitted because they are not required or because the required information is given in the Financial Statements or Notes thereto.

(a)(3) Exhibits.

The exhibits listed in the Exhibit Index below are filed or incorporated by reference as part of this Annual Report.

EXHIBIT INDEX

Number	Description of Document	Incorporated by Reference Form	Filing Date	Exhibit No.
3.1	Amended and Restated Certificate of Incorporation of Shoals Technologies Group, Inc., dated January 28, 2021	8-K	1/29/2021	3.1
3.2	Amended and Restated Bylaws of Shoals Technologies Group, Inc., dated January 28, 2021	8-K	1/29/2021	3.2
4.1	Description of Registered Securities	10-K	3/11/2022	4.1
10.1†	Employment Agreement, effective as of October 3, 2022, by and between Dominic Bardos and Shoals Technologies Group, LLC	10-Q	11/14/2022	10.1
10.2	Tax Receivable Agreement, dated as of January 29, 2021 by and among Shoals Technologies Group, Inc., Shoals Parent LLC and the other parties	8-K	1/29/2021	10.1
10.3	Tax Receivable Agreement Amendment, dated as of November 29, 2022, by and among Shoals Technologies Group, Inc. and the other parties thereto	8-K	11/30/2022	10.1
10.4	Third Amended and Restated Limited Liability Company Agreement, dated as of January 29, 2021, by and among Shoals Parent LLC, Dean Solon and Shoals Management	8-K	1/29/2021	10.3
10.5	Amendment No. 1 to the Third Amended and Restated Limited Liability Company Agreement of Shoals Parent LLC, dated December 6, 2022	8-K	12/6/2022	10.1
10.6	Registration Rights Agreement, dated January 29, 2021 by and among Shoals Technologies Group, Inc. and certain holders identified therein	8-K	1/29/2021	4.1
10.7†	Shoals Technologies Group, Inc. 2021 Long-Term Incentive Plan	S-8	1/29/2021	10.1
10.8†	Form of RSU Grant Notice and Award Agreement (Employees)	S-8	1/29/2021	10.2
10.9†	Form of RSU Grant Notice and Award Agreement (Directors)	S-8	1/29/2021	10.3
10.10†	Form of RSU Grant Notice and Award Agreement	10-Q	5/8/2023	10.3
10.11†	Form of PSU Grant Notice and Award Agreement	10-Q	5/8/2023	10.4
10.12†*	Form of RSU Grant Notice and Award Agreement (Tier A)			
10.13†*	Form of PSU Grant Notice and Award Agreement (Tier A)			
10.14†	Form of Director and Officer Indemnification Agreement	S-1/A	1/25/2021	10.5
10.15	Stockholders' Agreement, dated as of January 29, 2021 by and among Shoals Technologies Group, Inc., Oaktree Power Opportunities Fund IV (Delaware) Holdings, LP, Solon Holdco I, GP, Solon Holdco II, GP, Dean Solon and Shoals Management Holdings LLC	8-K	1/29/2021	10.2

EXHIBIT INDEX

		Incorporated by Reference		
Number	Description of Document	Form	Filing Date	Exhibit No.
10.16†	Employment Agreement, effective as of December 18, 2020, by and between Jason Whitaker and Shoals Technologies Group, LLC	S-1/A	1/25/2021	10.9
10.17†	Employment Agreement, effective as of December 31, 2020, by and between Mehgan Peetz and Shoals Technologies Group, LLC	S-1/A	1/25/2021	10.11
10.18†	Separation Agreement, dated February 24, 2023, by and between Jason Whitaker and Shoals Technologies Group, Inc.	8-K	2/27/2023	10.1
10.19†	Shoals Technologies Group, Inc. Executive Severance Plan	8-K	2/27/2023	10.2
10.20†	Offer Letter, dated as of June 11, 2023, by and between Brandon Moss and Shoals Technologies Group, Inc.	8-K	6/14/2023	10.1
10.21	Amendment No. 2, dated as of December 30, 2020, to the Credit Agreement, dated as of November 25, 2020, by and among Shoals Holdings LLC, Shoals Intermediate Holdings LLC, Wilmington Trust, National Association, as administrative agent and collateral agent, the lenders party thereto from time to time, and JPMorgan Chase Bank, N.A. and Guggenheim Securities, LLC, as lead arrangers and bookrunners	S-1/A	1/25/2021	10.1
10.22	Amendment No. 3 to Credit Agreement, dated as of November 10, 2022, between Shoals Holdings LLC, Shoals Intermediate Holdings LLC, Wilmington Trust, National Association, as Term Loan Administrative Agent and Collateral Agent, JPMorgan Chase Bank, N.A.	10-Q	11/10/2021	10.1
10.23	Amendment No. 5 to Credit Agreement, dated as of May 2, 2022, between Shoals Holdings LLC, Shoals Intermediate Holdings LLC, Wilmington Trust, National Association, as Term Loan Administrative Agent and Collateral Agent, JPMorgan Chase Bank, N.A., as Revolving Facility Administrative Agent and each L/C Issuer and lender	8-K	5/5/2022	10.1
10.24*†	Offer Letter, dated December 12, 2022, by and between Jeffery Tolnar and Shoals Technologies Group, Inc.			
21.1*	Subsidiaries of the Registrant			
23.1*	Consent of BDO USA, P.C., as to Shoals Technologies Group, Inc.			
31.1*	Certification of the Chief Executive Officer, as required by Section 302 of the Sarbanes- Oxley Act of 2002 (18 U.S.C. 1350)			
31.2*	Certification of the Chief Financial Officer, as required by Section 302 of the Sarbanes- Oxley Act of 2002 (18 U.S.C. 1350)			
32.1**	Certification of the Chief Executive Officer and Chief Financial Officer, as required by Section 906 of the Sarbanes-Oxley Act of 2002			

EXHIBIT INDEX

		Incorporated by Reference		
Number	**Description of Document**	**Form**	**Filing Date**	**Exhibit No.**
97.1*	Shoals Technologies Group, Inc. Clawback and Recoupment Policy			
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document			
101.SCH*	Inline XBRL Taxonomy Extension Schema Document			
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document			
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document			
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document			
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document			
104	Cover Page Interactive Data File - the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document			

* Filed herewith

** Furnished herewith

† Indicates a management contract or compensatory plan.

Item 16. Form 10–K Summary

None

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on February 28, 2024.

Shoals Technologies Group, Inc.

By: /s/ Brandon Moss
Name: Brandon Moss
Title: Chief Executive Officer and Director

* * * *

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacity and on the dates indicated.

Signature	Title	Date
/s/ Brandon Moss Brandon Moss	Chief Executive Officer (Principal Executive Officer) and Director	February 28, 2024
/s/ Dominic Bardos Dominic Bardos	Chief Financial Officer (Principal Financial and Accounting Officer)	February 28, 2024
/s/ Brad Forth Brad Forth	Chair of the Board of Directors	February 28, 2024
/s/ Ty Daul Ty Daul	Member of the Board of Directors	February 28, 2024
/s/ Lori Sundberg Lori Sundberg	Member of the Board of Directors	February 28, 2024
/s/ Toni Volpe Toni Volpe	Member of the Board of Directors	February 28, 2024
/s/ Peter Wilver Peter Wilver	Member of the Board of Directors	February 28, 2024
/s/ Jeannette Mills Jeannette Mills	Member of the Board of Directors	February 28, 2024
/s/ Robert Julian Robert Julian	Member of the Board of Directors	February 28, 2024

INDEX TO FINANCIAL STATEMENTS

Shoals Technologies Group, Inc.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Shoals Technologies Group, Inc.
Portland, Tennessee

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Shoals Technologies Group, Inc. (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of operations, changes in members' / stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2023, 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, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") and our report dated February 28, 2024 expressed an unqualified opinion thereon.

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 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.

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.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Warranty Liability related to Wire Insulation Shrinkback

As described in Note 9 to the consolidated financial statements, the Company has been notified by certain customers that a subset of wire harnesses used in its electrical balance of systems ("EBOS") solutions is presenting unacceptable levels of pull back of wire insulation at connection points (“wire insulation shrinkback”). Based upon the Company’s ongoing assessment, the Company currently believes the wire insulation shrinkback is related to defective red wire from a specific manufacturer. As of December 31, 2023, the Company recorded a warranty liability related to this matter of $54.9 million.

We identified the warranty liability related to the wire insulation shrinkback as a critical audit matter because of certain significant assumptions used by management to estimate the warranty liability, specifically, the magnitude of engineering, procurement, and construction firms’ (“EPC’s”) labor costs, estimated failure rates, and planned remediation methods. Auditing these assumptions involved especially complex and subjective auditor judgment due to the nature and extent of audit effort required to address this matter.

The primary procedures we performed to address this critical audit matter included:

- Evaluating the time period associated with the defective red wire and verifying the sites included in management’s estimate are within the affected time period.
- Verifying a sample of sites included in management’s estimate to confirm the accuracy of the number of harnesses and affected wire.
- Vouching the EPC’s labor rates to external quotes. Recalculating the estimated labor costs using labor rates and the number of impacted harnesses and evaluating the impact on the liability calculation.
- For a sample of sites, agreeing the failure rates to external inspection reports and testing the impact of those on the liability calculation.
- Evaluating management’s designation of planned remediation methods across the population of affected sites.

/s/ BDO USA, P.C.

We have served as the Company's auditor since 2017.

Austin, Texas

February 28, 2024

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Shoals Technologies Group, Inc.
Portland, Tennessee

Opinion on Internal Control over Financial Reporting

We have audited Shoals Technologies Group, Inc.'s (the "Company's") internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of December 31, 2023 and 2022, the related consolidated statements of operations, changes in members' / stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2023, and the related notes (collectively referred to as the "consolidated financial statements") and our report dated February 28, 2024 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Item 9A, Management's Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, P.C.

Austin, Texas

February 28, 2024

Shoals Technologies Group, Inc.
Consolidated Balance Sheets
(in thousands, except shares and par value)

	December 31,	
	2023	**2022**
Assets		
Current Assets		
Cash and cash equivalents	$ 22,707	$ 8,766
Accounts receivable, net	107,118	50,575
Unbilled receivables	40,136	16,713
Inventory, net	52,804	72,854
Other current assets	4,421	4,632
Total Current Assets	227,186	153,540
Property, plant and equipment, net	24,836	16,870
Goodwill	69,941	69,941
Other intangible assets, net	48,668	56,585
Deferred tax assets	468,195	291,634
Other assets	5,167	6,325
Total Assets	$ 843,993	$ 594,895
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	$ 14,396	$ 9,481
Accrued expenses and other	22,907	17,322
Warranty liability—current portion	31,099	560
Deferred revenue	22,228	23,259
Long-term debt—current portion	2,000	2,000
Total Current Liabilities	92,630	52,622
Revolving line of credit	40,000	48,000
Long-term debt, less current portion	139,445	189,063
Warranty liability, less current portion	23,815	—
Other long-term liabilities	3,107	4,221
Total Liabilities	298,997	293,906
Commitments and Contingencies (Note 16)		
Stockholders' Equity		
Preferred stock, $0.00001 par value - 5,000,000 shares authorized; none issued and outstanding as of December 31, 2023 and 2022	—	—
Class A common stock, $0.00001 par value - 1,000,000,000 shares authorized; 170,117,289 and 137,904,663 shares issued and outstanding as of December 31, 2023 and 2022, respectively	2	1
Class B common stock, $0.00001 par value - 195,000,000 shares authorized; none and 31,419,913 shares issued and outstanding as of December 31, 2023 and 2022, respectively	—	1
Additional paid-in capital	470,542	256,894
Accumulated earnings	74,452	34,478
Total stockholders' equity attributable to Shoals Technologies Group, Inc.	544,996	291,374
Non-controlling interests	—	9,615
Total stockholders' equity	544,996	300,989
Total Liabilities and Stockholders' Equity	$ 843,993	$ 594,895

See accompanying notes to consolidated financial statements.

Shoals Technologies Group, Inc.
Consolidated Statements of Operations
(in thousands, except per share amounts)

	Year Ended December 31,		
	2023	2022	2021
Revenue	$ 488,939	$ 326,940	$ 213,212
Cost of revenue	320,635	195,629	130,567
Gross profit	168,304	131,311	82,645
Operating expenses			
General and administrative expenses	80,719	55,908	37,893
Depreciation and amortization	8,550	9,073	8,520
Total operating expenses	89,269	64,981	46,413
Income from operations	79,035	66,330	36,232
Interest expense, net	(24,100)	(18,538)	(14,549)
Payable pursuant to the tax receivable agreement adjustment	—	(6,675)	(1,663)
Gain on termination of tax receivable agreement	—	110,883	—
Loss on debt repayment	—	—	(15,990)
Income before income taxes	54,935	152,000	4,030
Income tax expense	(12,274)	(8,987)	(86)
Net income	42,661	143,013	3,944
Less: net income attributable to non-controlling interests	2,687	15,402	1,596
Net income attributable to Shoals Technologies Group, Inc.	$ 39,974	$ 127,611	$ 2,348

	Year Ended December 31, 2023	Year Ended December 31, 2022	Period from January 27, 2021 to December 31, 2021
Earnings (Loss) per share of Class A common stock:			
Basic	$ 0.24	$ 1.11	$ (0.00)
Diluted	$ 0.24	$ 0.85	$ (0.00)
Weighted average shares of Class A common stock outstanding:			
Basic	164,165	114,495	99,269
Diluted	164,504	167,631	99,269

See accompanying notes to consolidated financial statements.

Shoals Technologies Group, Inc.
Consolidated Statements of Changes in Members' / Stockholders' Equity (Deficit)
(in thousands, except shares)

	Members' Equity (Deficit)	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Earnings (Deficit)	Non-Controlling Interests	Total Stockholders' Equity (Deficit)
		Shares	Amount	Shares	Amount				
Balance at December 31, 2020	$ (184,123)	—	$ —	—	$ —	$ —	$ —	$ —	$ (184,123)
Net income prior to the Organizational Transactions	2,675	—	—	—	—	—	—	—	2,675
Effect of Organizational Transactions	181,448	81,977,751	1	78,300,817	1	—	(92,806)	(88,644)	—
Issuance of Class A common stock sold in IPO, net of underwriting discounts and commissions and offering costs	—	11,550,000	—	(5,234,210)	—	69,939	—	70,976	140,915
Activity subsequent to the Organizational Transactions:									
Deferred tax adjustments related to Tax Receivable Agreements	—	—	—	—	—	20,997	—	—	20,997
Issuance of Class A common stock sold in follow-on offering, net of underwriting discounts and commissions	—	10,402,086	—	—	—	281,064	—	—	281,064
Purchase of LLC Interests and Class B common stock	—	—	—	(10,402,086)	—	(281,064)	—	—	(281,064)
Exchange of Class B to Class A common stock	—	7,870,042	—	(7,870,042)	—	—	—	—	—
Deferred tax adjustment related to ConnectPV LLC conversion	—	—	—	—	—	(238)	—	—	(238)
Issuance of Class A common stock in connection with an acquisition	—	209,437	—	—	—	6,500	—	—	6,500
Net income	—	—	—	—	—	—	(327)	1,596	1,269
Equity-based compensation	—	—	—	—	—	9,481	—	—	9,481
Activity under stock compensation plan	—	—	—	—	—	(3,755)	—	3,618	(137)
Distributions to non-controlling interests	—	—	—	—	—	—	—	(4,837)	(4,837)

Shoals Technologies Group, Inc.
Consolidated Statements of Changes in Members' / Stockholders' Equity (Deficit) *(continued)*
(in thousands, except shares)

	Members' Equity (Deficit)	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Earnings (Deficit)	Non-Controlling Interests	Total Stockholders' Equity (Deficit)
		Shares	Amount	Shares	Amount				
Vesting of restricted stock units	—	40,665	—	—	—	—	—	—	—
Reallocation of non-controlling interests	—	—	—	—	—	(7,240)	—	7,240	—
Balance at December 31, 2021	—	112,049,981	1	54,794,479	1	95,684	(93,133)	(10,051)	(7,498)
Net income	—	—	—	—	—	—	127,611	15,402	143,013
Equity-based compensation	—	—	—	—	—	17,913	—	—	17,913
Activity under equity-based compensation plan	—	—	—	—	—	(6,719)	—	5,422	(1,297)
Distributions to non-controlling interests	—	—	—	—	—	—	—	(7,762)	(7,762)
Vesting of restricted stock units	—	480,116	—	—	—	—	—	—	—
Exchange of Class B to Class A common stock	—	23,374,566	—	(23,374,566)	—	115,396	—	—	115,396
Issuance of Class A common stock sold in follow-on offering, net of underwriting discounts and commissions and offering costs	—	2,000,000	—	—	—	41,224	—	—	41,224
Reallocation of non-controlling interests	—	—	—	—	—	(6,604)	—	6,604	—
Balance at December 31, 2022	—	137,904,663	1	31,419,913	1	256,894	34,478	9,615	300,989
Net income	—	—	—	—	—	—	39,974	2,687	42,661
Equity-based compensation	—	—	—	—	—	20,862	—	—	20,862
Activity under equity-based compensation plan	—	—	—	—	—	(4,567)	—	687	(3,880)
Distributions to non-controlling interests	—	—	—	—	—	—	—	(2,628)	(2,628)
Vesting of restricted / performance stock units	—	792,713	—	—	—	—	—	—	—
Exchange of Class B to Class A common stock, net	—	31,419,913	1	(31,419,913)	(1)	186,745	—	—	186,745
Reallocation of non-controlling interests	—	—	—	—	—	10,361	—	(10,361)	—
Elimination of the umbrella-partnership C corporation structure	—	—	—	—	—	247	—	—	247
Balance at December 31, 2023	$ —	170,117,289	$ 2	—	$ —	$ 470,542	$ 74,452	$ —	$ 544,996

See accompanying notes to consolidated financial statements.

Shoals Technologies Group, Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2023	2022	2021
Cash Flows from Operating Activities			
Net income	$ 42,661	$ 143,013	$ 3,944
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	10,529	10,509	10,053
Amortization/write off of deferred financing costs	2,165	1,365	5,969
Equity-based compensation	20,862	16,108	11,286
Provision for credit losses	296	200	—
Provision for obsolete or slow-moving inventory	5,041	2,073	(1,418)
Provision for warranty expense	59,556	560	60
Deferred taxes	11,334	8,406	(1,476)
Payable pursuant to the tax receivable agreement adjustment	—	6,675	1,663
Gain on termination of tax receivable agreement	—	(110,883)	—
Gain on sale of assets	—	—	52
Changes in assets and liabilities, net of business acquisition:			
Accounts receivable	(56,839)	(19,207)	818
Unbilled receivables	(23,423)	(3,180)	(9,739)
Inventory	15,009	(36,927)	(17,188)
Other assets	1,355	244	341
Accounts payable	5,171	(11,029)	(3,877)
Accrued expenses and other	4,471	10,110	(6,239)
Warranty liability	(5,202)	—	—
Deferred revenue	(1,031)	21,418	1,668
Net Cash Provided by (Used in) Operating Activities	91,955	39,455	(4,083)
Cash Flows from Investing Activities			
Purchases of property, plant and equipment	(10,578)	(3,154)	(4,126)
Acquisition of a business, net of cash acquired	—	—	(12,909)
Other	(269)	(503)	—
Net Cash Used in Investing Activities	(10,847)	(3,657)	(17,035)
Cash Flows from Financing Activities			
Distributions to non-controlling interests	(2,628)	(7,762)	(4,837)
Employee withholding taxes related to net settled equity awards	(3,880)	(1,297)	(137)
Deferred financing costs	—	—	(94)
Payments on term loan facility	(51,500)	(2,000)	(152,750)
Proceeds from revolving credit facility	45,000	46,000	49,140
Repayments of revolving credit facility	(53,000)	(53,140)	(14,000)
Proceeds from issuance of Class A common stock sold in an IPO, net of underwriting discounts and commissions	—	—	278,833
Purchase of LLC Interests with proceeds from IPO	—	—	(124,312)
Proceeds from issuance of Class A common stock in follow-on offering, net of underwriting discounts and commissions	—	42,943	281,064

Shoals Technologies Group, Inc.
Consolidated Statements of Cash Flows *(continued)*
(in thousands)

	Year Ended December 31,		
	2023	2022	2021
Purchase of LLC Interests with proceeds from follow-on offering	—	—	(281,064)
Payment of debt assumed in acquisition	—	—	(1,537)
Deferred offering costs	(1,159)	(1,463)	(9,704)
Early termination payment of tax receivable agreement	—	(58,000)	—
Payment of fees for tax receivable agreement termination	—	(1,870)	—
Net Cash Provided by (Used in) Financing Activities	(67,167)	(36,589)	20,602
Net Increase (Decrease) in Cash, Cash Equivalents and Restricted Cash	13,941	(791)	(516)
Cash, Cash Equivalents and Restricted Cash—Beginning of Period	8,766	9,557	10,073
Cash, Cash Equivalents and Restricted Cash—End of Period	$ 22,707	$ 8,766	$ 9,557

	Year Ended December 31,		
	2023	2022	2021
Supplemental Cash Flows Information:			
Cash paid for interest	$ 23,104	$ 12,840	$ 10,809
Cash paid for taxes	$ 1,324	$ 786	$ 1,190
Non-cash investing and financing activities:			
Reclassification of deferred offering costs to additional paid-in capital	$ —	$ —	$ 3,902
Recording of deferred tax assets related to exchanges of Class B common stock to Class A common stock	$ 187,648	$ 123,157	$ 187,915
Recording of amounts payable pursuant to tax receivable agreement	$ —	$ 7,761	$ 154,711
Capital contribution related to tax receivable agreement exchanges of Class B common stock to Class A common stock	$ 187,648	$ 115,396	$ 27,011
Income tax receivable from merger due to former owner	$ —	$ —	$ 3,842
Deferred tax asset and additional paid-in capital from ConnectPV	$ —	$ —	$ 238
Class A common stock issued in ConnectPV acquisition	$ —	$ —	$ 6,500

See accompanying notes to consolidated financial statements.

1. Organization and Business

Shoals Technologies Group, Inc. (the "Company") was formed as a Delaware corporation on November 4, 2020 for the purpose of facilitating an initial public offering ("IPO") and other related organizational transactions to carry on the business of Shoals Parent LLC and its subsidiaries ("Shoals Parent LLC"). Shoals Parent LLC was a Delaware limited liability company.

The Company is headquartered in Portland, Tennessee and is a manufacturer of electrical balance of systems ("EBOS") solutions and components for solar, battery storage and electric vehicle charging applications, selling to customers primarily in the United States as well as internationally.

Initial Public Offering and Organizational Transactions

On January 29, 2021, the Company completed an IPO of 11,550,000 shares of Class A common stock at a public offering price of $25.00 per share, including shares issued pursuant to the underwriters' over-allotment option. The Company received $278.8 million in proceeds, net of underwriting discounts and commissions of $9.9 million, which was used to purchase 6,315,790 newly-issued membership interests ("LLC Interests") from Shoals Parent LLC and 5,234,210 LLC Interests from Dean Solon, our founder (the "Founder"), and Class B unit holder in Shoals Parent LLC at a price per interest equal to the IPO price of $25.00 per share.

In connection with the IPO, the Company and Shoals Parent LLC completed a series of transactions (the "Organizational Transactions") including the following:

- the limited liability company agreement (the "LLC Agreement") of Shoals Parent LLC was amended and restated to, among other things, (i) provide for a new single class of LLC Interests in Shoals Parent LLC, (ii) exchange all of the then existing membership interests of the holders of Shoals Parent LLC membership interests for LLC Interests and (iii) appoint the Company as the sole managing member of Shoals Parent LLC;
- the Company's certificate of incorporation was amended and restated to, among other things, (i) provide for Class A common stock with voting and economic rights (ii) provide for Class B common stock with voting rights but no economic rights and (iii) issue 78,300,817 shares of Class B common stock to the former Class B and Class C members of Shoals Parent LLC (the "Continuing Equity Owners") on a one-to-one basis with the number of LLC Interests they own; and
- the acquisition, by merger, of Shoals Investment CTB or the former Class A member of Shoals Parent LLC (the "Class A Shoals Equity Owners"), for which the Company issued 81,977,751 shares Class A common stock as merger consideration (the "Merger").

Follow-On and Secondary Offerings

On July 16, 2021, the Company completed a secondary offering consisting of 4,989,692 shares of Class A common stock offered by the selling stockholders and 10,402,086 shares of Class A common stock offered by the Company. The Company used the proceeds of the sale of Class A common stock to purchase an equal number of LLC Interests and Class B common stock from our founder and management.

On December 6, 2022, the Company completed a secondary offering consisting of 27,900,000 shares of Class A common stock offered by the selling stockholders and 2,000,000 shares of Class A common stock offered by the Company. The Company used the proceeds of the sale of Class A common stock together with cash on hand, to make a payment of $58.0 million to terminate the Tax Receivable Agreement ("TRA"). See Note 18 - Payable Pursuant to the Tax Receivable Agreement.

On March 10, 2023, the selling stockholders, which consisted of certain entities controlled by the Founder, completed a secondary offering consisting of 24,501,650 shares of Class A common stock. Following the closing of the secondary offering, the founder no longer owned any shares of our Class B common stock or LLC Interests. The Company did not receive any proceeds from the sale of shares of our Class A common stock by the selling stockholders in this offering.

Termination of Tax Receivable Agreement

On November 29, 2022, the Company entered into an amendment to the TRA (the "TRA Amendment"), dated as of January 29, 2021, pursuant to which the parties thereto agreed to grant the Company a right to terminate the TRA until December 31, 2022 (the "TRA Termination Right") in exchange for a termination consideration of $58.0 million, payable in cash. The Company exercised its TRA Termination Right, and the TRA was terminated on December 6, 2022.

Entity Simplification

In March 2023, following the secondary offerings described above, all Continuing Equity Owners, exchanged all the LLC Interests and corresponding shares of Class B common stock of the Company beneficially owned by them into shares of Class A common stock of the Company. As a result, upon effectiveness of such exchanges, and prior to the July 1, 2023 contribution described below, all of the LLC Interests in Shoals Parent LLC were held by the Company, no other holders own LLC Interests and no Class B common stock is outstanding.

On July 1, 2023, the Company contributed 100% of its LLC Interests of Shoals Parent LLC to its wholly-owned subsidiary Shoals Intermediate Parent. Following the contribution, Shoals Parent LLC became a disregarded single member limited liability company, eliminating the umbrella-partnership C corporation structure ("Up-C structure"). Effective July 1, 2023, the Company owned 100% of Shoals Parent LLC together with its wholly-owned subsidiary, Shoals Intermediate Parent.

Following the elimination of the Up-C structure, effective December 31, 2023, the Company consummated an internal reorganization transaction whereby certain of the Company's wholly-owned subsidiaries merged with and into other subsidiaries. As part of this reorganization, Shoals Parent LLC merged with and into Shoals Intermediate Parent, with Shoals Intermediate Parent as the surviving corporation.

As of December 31, 2023, Shoals Technologies Group, Inc. owns directly or indirectly four subsidiaries: Shoals Intermediate Parent, Shoals Technologies Group, LLC, Shoals International, LLC and Shoals Energy Spain, S.L.

2. Summary of Significant Accounting Policies

Basis of Accounting and Presentation

The consolidated financial statements have been prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation.

Non-Controlling Interests

The non-controlling interests on the consolidated statements of operations represented a portion of earnings or loss attributable to the economic interests in the Company's former subsidiary, Shoals Parent LLC, formerly held by the Continuing Equity Owners. Non-controlling interests on the consolidated balance sheets represented the portion of net assets of the Company attributable to the Continuing Equity Owners, based on the portion of the LLC Interests owned by such unit holders. As of July 1, 2023, the Company, along with wholly-owned subsidiary Shoals Intermediate Parent, owned 100% of Shoals Parent LLC. Effective December 31, 2023, Shoals Parent LLC merged with and into Shoals Intermediate Parent with Shoals Intermediate Parent as the surviving corporation. See "Entity Simplification" in Note 1.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ materially from those estimates. Significant estimates include revenue recognition, allowance for credit losses, useful lives of property, plant and equipment and other intangible assets, impairment of long-lived assets, allowance for obsolete or slow moving inventory, payable pursuant to the TRA, valuation allowance on deferred tax assets, equity-based compensation expense and warranty liability.

Cash and Cash Equivalents

The Company considers cash and cash equivalents to include cash on hand, cash held in demand deposit accounts, and all highly liquid financial instruments purchased with a maturity of three months or less.

Restricted Cash

Restricted cash is included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the consolidated statements of cash flows. Restricted cash is restricted as to withdrawal or use. Prior to the termination of the TRA, tax distributions paid by Shoals Parent LLC to the Company were restricted under the LLC Agreement for future payments under the TRA and totaled $4.6 million as of December 31, 2021. There was no restricted cash as of December 31, 2022 or December 31, 2023.

A reconciliation of cash, cash equivalents and restricted cash to the consolidated statements of cash flows is as follows (in thousands):

	As of December 31,		
	2023	2022	2021
Cash and cash equivalents	$ 22,707	$ 8,766	$ 5,006
Restricted cash included in other current assets	—	—	—
Restricted cash included in other assets	—	—	4,551
Total cash, cash equivalents and restricted cash	$ 22,707	$ 8,766	$ 9,557

Accounts Receivable and Allowance for Credit Losses

Accounts receivable is comprised of amounts billed to customers, net of an allowance for credit losses. The allowance for credit losses is estimated by management and is based on historical experience, current conditions and reasonable forecasts. Periodically, management reviews the accounts receivable balances of its customers and adjusts the allowance based on current circumstances and charges off uncollectible receivables when all attempts to collect have failed, although collection efforts may continue.

Unbilled Receivables

Unbilled receivables arise when the Company recognizes revenue for amounts which cannot yet be billed under terms of the contract with the customer.

Inventory

Inventories consist of raw materials, work in process, and finished goods. Inventories are stated at the lower of cost or net realizable value. Cost is calculated using the first-in first-out method. Provisions are made to reduce excess or obsolete inventories to their estimated net realizable values.

Property, Plant, and Equipment

Property, plant, and equipment acquired in acquisitions are recorded at fair value at the date of acquisition; all other property, plant and equipment are recorded at cost, net of accumulated depreciation. Improvements, betterments and replacements which significantly extend the life of an asset are capitalized. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets. Repair and maintenance costs are expensed as incurred.

A gain or loss on the sale of property, plant and equipment is calculated as the difference between the cost of the asset disposed of, net of accumulated depreciation, and the sales proceeds received. A gain or loss on an asset disposal is recognized in the period that the sale occurs.

Impairment of Long-Lived Assets

When events, circumstances or operating results indicate that the carrying values of long-lived assets might not be recoverable through future operations, the Company prepares projections of the undiscounted future cash flows expected to result from the use of the assets and their eventual disposition. If the projections indicate that the recorded amounts are not expected to be recoverable, such amounts are reduced to estimated fair value. Fair value is estimated based upon internal evaluation of each asset that includes quantitative analyses of net revenue and cash flows, review of recent sales of similar assets and market responses based upon discussions in connection with offers received from potential buyers. Management determined there was no impairment for the years ended December 31, 2023, 2022 and 2021.

Goodwill

Goodwill is assessed using either a qualitative assessment or quantitative approach to determine whether it is more likely than not that the fair value of the reporting unit is less than the carrying amount. The qualitative assessment evaluates factors including macroeconomic conditions, industry-specific and company-specific considerations, legal and regulatory environments, and historical performance. If the Company determines that it is more likely than not that the fair value of a reporting unit is less than its carrying value, a quantitative assessment is performed. Otherwise, no further assessment is required. The quantitative approach compares the estimated fair value of the reporting units to its carrying amount, including goodwill. Impairment is indicated if the estimated fair value of the reporting unit is less than the carrying amount of the reporting unit, and an impairment charge is recognized for the differential.

The Company completes its annual goodwill impairment test as of October 1 each year. For the years ended December 31, 2023, 2022 and 2021, the Company performed a qualitative assessment of its goodwill and determined no impairment. Since the Company’s formation on May 9, 2017, the Company has not had any goodwill impairment.

Amortizable and Other Intangible Assets

The Company amortizes identifiable intangible assets consisting of customer relationships, developed technology, trade names, backlog and noncompete agreements because these assets have finite lives. The Company's intangible assets with finite lives are amortized on a straight-line basis over the estimated useful lives. The basis of amortization approximates the pattern in which the assets are utilized over their estimated useful lives. The Company reviews for impairment indicators of finite-lived intangibles, as described in the "Impairment of Long-Lived Assets" significant accounting policy.

Deferred Offering Costs

Deferred offering costs consist primarily of registration fees, filing fees, listing fees, specific legal and accounting costs and transfer agent fees, which are direct and incremental fees related to the IPO and secondary offerings.

Deferred Financing Costs

Costs incurred to issue debt are capitalized and recorded net of the related debt and amortized using the effective interest method as a component of interest expense over the terms of the related debt agreement.

Revenue Recognition

The Company recognizes revenue primarily from the sale of EBOS systems and components. The Company determines its revenue recognition through the following steps: (i) identification of the contract or contracts with a customer, (ii) identification of the performance obligations within the contract, (iii) determination of the transaction price, (iv) allocation of the transaction price to the performance obligations within the contract, and (v) recognition of revenue as the performance obligation has been satisfied.

The Company's contracts with customers predominately are accounted for as one performance obligation, as the majority of the obligations under the contracts relate to a single project. For each contract entered into, the Company determines the transaction price based on the consideration expected to be received. The transaction price identified is allocated to each distinct performance obligation to deliver a good or service based on the relative standalone selling prices. Management has concluded that the prices negotiated with each individual customer are representative of the standalone selling price of the product.

The Company primarily recognizes revenue over time as a result of the continuous transfer of control of its product to the customer using the output method based on units manufactured. This continuous transfer of control to the customer is supported by clauses in the contracts that provide rights to payment of the transaction price associated with work performed to date on products that do not have an alternative use to the Company. Management believes that recognizing revenue using the output method based on units manufactured best depicts the extent of transfer of control to the customer.

In certain instances the promised goods do have an alternative use. In these instances revenue is recognized when the customer obtains control of the product. Contracts of this nature typically include customer acceptance clauses, which results in revenue recognition occurring upon customer acceptance.

Depending on the size of project, the manufacturing process generally takes from less than one week to four months to complete production. The accounting for each contract involves a judgmental process of estimating total sales, costs, and profit for each performance obligation. Cost of revenue is recognized based on the unit of production. The amount reported as revenue is determined by adding a proportionate amount of the estimated profit to the amount reported as cost of revenue.

The Company has elected to adopt certain practical expedients and exemptions as allowed under the new revenue recognition guidance such as (i) recording sales commissions as incurred because the amortization period is less than one year, (ii) excluding any collected sales tax amounts from the calculation of revenue, and (iii) accounting for shipping and handling activities that are incurred after the customer has obtained control of the product as fulfillment costs rather than a separate service provided to the customer for which consideration would need to be allocated (see Shipping and Handling).

Shipping and Handling

The Company accounts for shipping and handling related to contracts with customers as costs to fulfill its promise to transfer the associated products. Accordingly, payment by the Company's customers for shipping and handling costs for delivery of the Company's products are recorded as a component of revenue in the accompanying consolidated statements of operations. Shipping and handling expenses are included as a component of cost of revenue as incurred and totaled $5.2 million, $7.0 million and $5.2 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Concentrations

The Company has cash deposited at certain financial institutions which, at times, may exceed the limits provided by the Federal Deposit Insurance Corporation ("FDIC"). The Company has not experienced any losses on such amount and believes it is not subject to significant credit risk related to cash balances. As of December 31, 2023, $22.3 million of the Company's bank balances were in excess of FDIC insurance limits.

The Company had the following revenue concentrations representing approximately 10% or more of revenue for the years ended December 31, 2023, 2022 and 2021 and related accounts receivable concentrations as of December 31, 2023 and 2022:

	2023		2022		2021
	Revenue %	Accounts Receivable %	Revenue %	Accounts Receivable %	Revenue %
Customer A	36.3 %	37.5 %	7.0 %	8.4 %	18.3 %
Customer B	5.5 %	3.9 %	6.3 %	5.1 %	11.3 %
Customer C	0.2 %	3.8 %	6.0 %	12.6 %	10.0 %

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company follows a fair value hierarchy which requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Three levels of inputs may be used to measure fair value, as follows:

- **Level 1** – Quoted prices in active markets for identical assets or liabilities.
- **Level 2** – Observable inputs other than Level 1 prices, 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 that are supported by little or no market activity that are significant to the fair value of the assets or liabilities.

The fair values of the Company's cash and cash equivalents, accounts receivable, and accounts payable approximate their carrying values due to their short maturities. The carrying value of the Company's long-term debt approximates fair value and is considered level 2, as it is based on current market rates at which the Company could borrow funds with similar terms.

The Company follows the provisions of Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 820-10 for nonfinancial assets and liabilities measured at fair value on a nonrecurring basis. As it relates to the Company, this applies to certain nonfinancial assets and liabilities acquired in business combinations.

Income Taxes

Pre-IPO Income Taxes

Shoals Parent LLC was treated as a partnership and was not subject to federal income tax; rather, Shoals Parent LLC’s taxable income was passed through to its members and subject to federal income tax at the member level.

Shoals Parent LLC and its subsidiary LLCs were generally not subject to state income tax; however, Shoals Technologies Group, LLC and Shoals Technologies, LLC paid various state and franchise taxes.

Post-IPO Income Taxes

The Company is taxed as a corporation for U.S. federal and state income tax purposes. Prior to July 1, 2023, the Company’s sole material asset was Shoals Parent LLC, which was a limited liability company that was taxed as a partnership for US federal and certain state and local income tax purposes. Shoals Parent LLC’s net taxable income and related tax credits, if any, were passed through to its members and included in the member’s tax returns.

The Company accounts for income taxes using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are calculated by applying existing tax laws and the rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the year of the enacted rate change.

In assessing the realizability of deferred tax assets, management considers whether it is more-likely-than-not that the deferred tax assets will be realized. In making such a determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, carryback potential if permitted under the tax law, and results of recent operations.

The Company accounts for uncertainty in income taxes using a recognition and measurement threshold for tax positions taken or expected to be taken in a tax return, which are subject to examination by federal and state taxing authorities. The tax benefit from an uncertain tax position is recognized when it is more likely than not that the position will be sustained upon examination by taxing authorities based on the technical merits of the position. The amount of the tax benefit recognized is the largest amount of the benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The effective tax rate and the tax basis of assets and liabilities reflect management’s estimates of the ultimate outcome of various tax uncertainties. The Company recognizes penalties and interest related to uncertain tax positions within the income tax expense financial statement caption in the accompanying consolidated statements of operations. The Company did not have any material interest and penalties during the years ended December 31, 2023, 2022 and 2021.

The Company files U.S. federal and certain state income tax returns. The income tax returns of the Company are subject to examination by U.S. federal and state taxing authorities for various time periods, depending on each jurisdictions' rules, beginning generally after the income tax returns are filed.

Product Warranty

The Company offers an assurance type warranty for its products against manufacturer defects and does not contain a service element. For these assurance type warranties, a provision for estimated future costs related to warranty expense is recorded when they are probable and reasonably estimable. This provision is based on historical information on the nature, frequency and average cost of claims for each product line. When little or no experience exists for an immature product line, the estimate is based on comparable product lines. Specific liabilities are established once an issue is identified with the amounts for such liabilities based on the estimated cost of correction. These estimates are re-evaluated on an ongoing basis using best-available information and revisions to estimates are made as necessary. As of December 31, 2023 and 2022 our estimated warranty liability was $54.9 million and $0.6 million, respectively.

Acquisition Accounting

The Company accounts for its business acquisitions under the acquisition method of accounting in ASC 805. The excess of the purchase price over the estimated fair values of the net assets acquired is recorded as goodwill. Determining the fair value of assets acquired and liabilities assumed requires management's judgment and often involves the use of significant estimates and assumptions, including assumptions with respect to future cash inflows and outflows, discount rates, asset lives, and market multiples amongst other items.

Equity-Based Compensation

The Company recognizes equity-based compensation expense based on the equity award's grant date fair value. The determination of the fair value of equity awards issued to employees of the Company is based upon the closing market price of the Company's common stock on the day prior to the grant date. Equity-based compensation expense related to performance stock units is recognized if it is probable that the performance condition will be satisfied. The Company accounts for forfeitures as they occur. The grant date fair value of each unit is amortized on a straight-line basis over the requisite service period, including those units with graded vesting. However, the amount of equity-based compensation at any date is at least equal to the portion of the grant date fair value of the award that is vested.

Earnings (Loss) per Share ("EPS")

Basic EPS is computed by dividing net income (loss) available to common stockholders by the weighted average shares outstanding during the period. Diluted EPS takes into account the potential dilution that could occur if securities or other contracts to issue shares, such as unvested restricted stock units, were exercised and converted into shares. Diluted EPS is computed by dividing net income (loss) available to common stockholders by the weighted average shares outstanding during the period, increased by the number of additional shares that would have been outstanding if the potential shares had been issued and were dilutive.

Segment Reporting

ASC 280 ("Segment Reporting") establishes standards for reporting information about operating segments. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company manages its business on the basis of one operating and reportable segment and derives revenues from selling its product.

Advertising Expenses

Advertising expenses are expensed as incurred. Advertising expenses for the years ended December 31, 2023, 2022 and 2021 were not material to our consolidated financial statements.

Research and Development Expenses

Research and development expenses are expensed as incurred. Research and development expenses for the years ended December 31, 2023, 2022 and 2021 were not material to our consolidated financial statements.

New Accounting Standards

Adopted

In October 2021, the FASB issued ASU 2021-08, *Business Combinations (Topic 805) Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*. This ASU requires that contract assets and contract liabilities acquired in a business combination be recognized and measured in accordance with Topic 606. At the acquisition date, an acquirer should account for the related revenue contracts in accordance with Topic 606 as if it had originated the contracts. This guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within that fiscal year. The adoption of this standard on January 1, 2023 did not have an impact on the Company's consolidated financial statements.

Not Yet Adopted

In October 2023, the FASB issued ASU 2023-06 Disclosure Improvements: Codification Amendments in Response to the SEC's Disclosure Update and Simplification Initiative. This ASU amends the disclosure or presentation requirements related to various subtopics in the FASB Accounting Standards Codification. For SEC registrants, the effective date for each amendment will be the date on which the SEC's removal of that related disclosure requirement from Regulation S-X or Regulation S-K becomes effective, with early adoption prohibited. The Company will monitor the removal of various requirements from the current regulations in order to determine when to adopt the related amendments, but does not anticipate the adoption of the new guidance will have a material impact on the Company's consolidated financial statements. The Company will continue to evaluate the impact of this guidance on its consolidated financial statements.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures, which modifies the disclosure and presentation requirements of reportable segments. The amendments in the update require the disclosure of significant segment expenses that are regularly provided to the chief operating decision maker ("CODM") and included within each reported measure of segment profit and loss. The amendments also require disclosure of all other segment items by reportable segment and a description of its composition. Additionally, the amendments require disclosure of the title and position of the CODM and an explanation of how the CODM uses the reported measure(s) of segment profit or loss in assessing segment performance and deciding how to allocate resources. This update is effective for annual periods beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company is currently evaluating the impact that this guidance will have on the presentation of its consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures, which expands disclosures in an entity's income tax rate reconciliation table and disclosures regarding cash taxes paid both in the U.S. and foreign jurisdictions. The update will be effective for annual periods beginning after December 15, 2024. The Company is currently evaluating the impact that this guidance will have on the presentation of its consolidated financial statements.

Management does not believe that any other recently issued, but not yet effective, accounting standards, if currently adopted, would have a material effect on the Company's consolidated financial statements.

3. Acquisition of ConnectPV

On August 26, 2021, the Company acquired 100% of the common stock of ConnectPV, Inc ("ConnectPV"). The acquisition of ConnectPV was accounted for as a business combination using the acquisition method of accounting. The aggregate purchase price was $13.8 million in cash (net of $0.8 million cash acquired) and 209,437 shares of Class A common stock valued at $6.5 million.

The cash portion of the purchase price was funded by borrowing under our Revolving Credit Facility (as defined in Note 10 - Long-Term Debt). The purchase price paid has been allocated to record the acquired assets and assumed liabilities based upon their estimated fair value. When determining the fair values of the assets acquired and assumed liabilities, management made significant estimates, judgements and assumptions. Management estimated that consideration paid exceeded the fair value of the net assets acquired. Therefore, goodwill of $19.8 million was recorded. The goodwill recognized was primarily attributable to the workforce and synergies related to the Company's EBOS solutions and components business that are expected to arise from the ConnectPV acquisition.

The following table is the balance sheet of ConnectPV as of the acquisition date, August 26, 2021, and includes the estimated fair value of the assets acquired and assumed liabilities. The estimated fair value allocated to certain property, plant and equipment, identifiable intangible assets and goodwill was determined based on a combination of market, cost and income approaches with the assistance of a third-party valuation firm (in thousands):

Purchase Price Allocation	
Cash and cash equivalents	$ 849
Accounts receivable	5,382
Inventory	4,273
Other current assets	1,583
Total current assets	12,087
Property, plant and equipment	438
Goodwill	19,765
Other intangible assets	1,600
Total Assets	33,890
Accounts payable	9,440
Accrued expenses	2,655
Debt	1,537
Total liabilities	13,632
Net assets acquired	$ 20,258

The Company expensed acquisition-related costs of $2.3 million which are included in general and administrative expenses in the consolidated statement of operations for the year ended December 31, 2021. The goodwill and acquisition costs are not deductible for tax purposes.

Pro Forma Financial Information (Unaudited)

The pro forma information below gives effect to the ConnectPV acquisition as if it had been completed on the first day of each period presented. The pro forma results of operations are presented for informational purposes only. As such, they are not necessarily indicative of the Company's results had the acquisition been completed on the first day of each period presented, nor do they intend to represent the Company's future results. The pro forma information does not reflect any cost savings from operating efficiencies or synergies that could result from the acquisition and does not reflect additional revenue opportunities following the acquisition. The pro forma information includes adjustments to record the assets and liabilities associated with the acquisition at their respective fair values, based on available information and to give effect to the financing for the acquisition (in thousands):

	Year Ended December 31, 2021
Revenue	$ 229,709
Net income	$ 3,305

4. Accounts Receivable

Accounts receivable, net consists of the following (in thousands):

	December 31, 2023	December 31, 2022
Accounts receivable	$ 107,877	$ 51,061
Less: allowance for credit losses	(759)	(486)
Accounts receivable, net	$ 107,118	$ 50,575

5. Inventory

Inventory, net consists of the following (in thousands):

	December 31, 2023	December 31, 2022
Raw materials	$ 57,608	$ 73,970
Work in process	1,111	1,023
Finished goods	654	785
Allowance for obsolete or slow-moving inventory	(6,569)	(2,924)
Inventory, net	$ 52,804	$ 72,854

The following table presents the change in the allowance for obsolete or slow-moving inventory balances (in thousands):

	December 31,	
	2023	2022
Allowance balance, beginning of year	$ (2,924)	$ (897)
Provision	(5,041)	(2,073)
Write offs	1,396	46
Allowance balance, end of year	$ (6,569)	$ (2,924)

6. Property, Plant and Equipment

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

	Estimated Useful Lives (Years)	December 31,	
		2023	2022
Land	N/A	$ 840	$ 840
Building and land improvements	5-40	13,134	9,031
Machinery and equipment	3-5	17,528	12,371
Furniture and fixtures	3-7	2,766	1,787
Vehicles	5	125	125
		34,393	24,154
Less: accumulated depreciation		(9,557)	(7,284)
Property, plant and equipment, net		$ 24,836	$ 16,870

Depreciation expense for the years ended December 31, 2023, 2022 and 2021 was $2.6 million, $1.9 million and $1.7 million, respectively. During the years ended December 31, 2023, 2022 and 2021, $2.0 million, $1.5 million and $1.5 million, respectively, of depreciation expense was allocated to cost of revenue and $0.6 million, $0.4 million and $0.2 million, respectively, of depreciation expense was allocated to operating expenses.

7. Goodwill and Other Intangible Assets

Goodwill

As of December 31, 2023 and 2022, goodwill totaled $69.9 million. Changes in the carrying amount of goodwill during the years ended December 31, 2023 and 2022 are shown below (in thousands):

	Goodwill
Balance at December 31, 2021	$ 69,436
Adjustments related to finalization of working capital in the acquisition of ConnectPV	505
Balance at December 31, 2022	69,941
Adjustments	—
Balance at December 31, 2023	$ 69,941

Other Intangible Assets

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

	Estimated Useful Lives (Years)	December 31, 2023	December 31, 2022
Amortizable:			
Costs:			
Customer relationships	13	$ 53,100	$ 53,100
Developed technology	13	34,600	34,600
Trade names	13	11,900	11,900
Backlog	1	600	600
Noncompete agreements	5	2,000	2,000
Total amortizable intangibles		102,200	102,200
Accumulated amortization:			
Customer relationships		27,135	22,925
Developed technology		17,522	14,860
Trade names		6,275	5,230
Backlog		600	600
Noncompete agreements		2,000	2,000
Total accumulated amortization		53,532	45,615
Total other intangible assets, net		$ 48,668	$ 56,585

Amortization expense related to intangible assets amounted to $7.9 million, $8.7 million and $8.4 million for the years ended December 31, 2023, 2022 and 2021, respectively. Estimated future annual amortization expense for other intangible assets, net are as follows (in thousands):

For the Year Ended December 31,	Amortization Expense
2024	$ 7,585
2025	7,585
2026	7,585
2027	7,585
2028	7,585
Thereafter	10,743
	$ 48,668

8. Accrued Expenses and Other

Accrued expenses and other consists of the following (in thousands):

	December 31, 2023	December 31, 2022
Accrued compensation	$ 10,796	$ 4,917
Accrued interest	5,934	7,226
Other accrued expenses	6,177	5,179
Total accrued expenses and other	$ 22,907	$ 17,322

9. Warranty Liability

General Warranty

The Company offers an assurance type warranty for its products against manufacturer defects which does not contain a service element. For these assurance type warranties, a provision for estimated future costs related to warranty expense is recorded when they are probable and reasonably estimable. As of December 31, 2023 and December 31, 2022 our estimated general warranty liability was approximately zero and $0.1 million, respectively. The Company recorded total warranty expense related to general warranty matters of $0.4 million, $0.1 million, and zero for the years ended December 31, 2023, 2022 and 2021, respectively.

Wire Insulation *Shrinkback Warranty*

The Company has been notified by certain customers that a subset of wire harnesses used in its EBOS solutions is presenting unacceptable levels of pull back of wire insulation at connection points ("wire insulation shrinkback"). Based upon the Company's ongoing assessment, the Company currently believes the wire insulation shrinkback is related to defective red wire manufactured by Prysmian Cables and Systems USA, LLC ("Prysmian"). As of December 31, 2023, based on the Company's continued analysis, which included better visibility into the scope of affected sites and potential solutions, including identification, repair and replacement of harnesses, the Company determined that a potential range of loss was both probable and reasonably estimable and updated its estimate of potential losses from previously provided estimates. Based on the Company's continued analysis of information available as of the date of this Annual Report, the estimate of potential losses remains unchanged from the estimate provided as of September 30, 2023. As no amount within the current range of loss appears to be a better estimate than any other amount, the Company recorded a warranty liability and related expense representing the low end of the range of potential loss of $59.7 million. The high-end of the range of potential loss is $184.9 million, which is $125.2 million higher than the amount we have recorded. As of December 31, 2023, our recorded warranty liability related to this matter was $54.9 million.

The estimated range is based on several assumptions, including the potential magnitude of EPC's labor cost to identify and perform the repair and replacement of impacted harnesses, estimated failure rates, materials replacement cost, planned remediation method, inspection costs, and other various assumptions, and as additional information becomes available, the Company may increase or decrease its estimated warranty liability from its current estimate, and such increase or decrease may be material. The Company does not maintain insurance for product warranty and has commenced a lawsuit against Prysmian, as discussed in more detail under Wire Insulation Shrinkback Litigation section of Note 16 - Commitments and Contingencies. Because the lawsuit against Prysmian is ongoing, potential recovery from Prysmian is not considered probable as defined in ASC 450, and has not been considered in our estimate of the warranty liability as of December 31, 2023.

The Company recorded total warranty expense related to this matter of $59.2 million, $0.5 million, and zero for the years ended December 31, 2023, 2022 and 2021, respectively.

Warranty liability, which includes both general warranty and wire insulation shrinkback warranty, consists of the following (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Warranty liability, beginning of period	$ 560	$ 60	$ —
Warranty expense	59,556	500	60
Payments	(5,202)	—	—
Warranty liability, end of period	54,914	560	60
Less: current portion	31,099	560	60
Warranty liability, net current portion	$ 23,815	$ —	$ —

10. Long-Term Debt

Long-term debt consists of the following (in thousands):

	December 31,	
	2023	2022
Term Loan Facility	$ 143,750	$ 195,250
Revolving Credit Facility	40,000	48,000
Less: deferred financing costs	(2,305)	(4,187)
Total debt, net of deferred financing costs	181,445	239,063
Less: current portion	(2,000)	(2,000)
Long-term debt, net current portion	$ 179,445	$ 237,063

The aggregate amounts of principal maturities on the Company's long-term debt is as follows (in thousands):

For the Year Ended December 31,	
2024	$ 2,000
2025	2,000
2026	179,750
	$ 183,750

Senior Secured Credit Agreement

On November 25, 2020 Shoals Holdings LLC, a former subsidiary of the Company, entered into a senior secured credit agreement (as amended, the "Senior Secured Credit Agreement"), consisting of (i) a $350.0 million senior secured six-year term loan facility (the "Term Loan Facility"), (ii) a $30.0 million senior secured delayed draw term loan facility, which matures concurrently with the six-year Term Loan Facility (the "Delayed Draw Term Loan Facility") and (iii) an uncommitted super senior first out revolving credit facility (the "Revolving Credit Facility").

In December 2020, Shoals Holdings LLC entered into two amendments to the Senior Secured Credit Agreement in order to obtain a $100.0 million increase (the “Revolver Upsize”) to the Revolving Credit Facility and modify the terms of the interest rate and prepayment premium. As part of the first amendment the Company repaid and terminated all outstanding commitments under the Delayed Draw Term Loan Facility.

On January 29, 2021, the Company used proceeds from the IPO to repay $150.0 million of outstanding borrowings under the Term Loan Facility. The repayment of a portion of the borrowings under the Term Loan Facility resulted in a $16.0 million loss on debt repayment as the result of the $11.3 million prepayment premium and $4.7 million write-off of a portion of the deferred financing costs.

On May 2, 2022, Shoals Holdings LLC entered into an amendment to the Senior Secured Credit Agreement in order to increase the amount available for borrowing under the Revolving Credit Facility from $100.0 million to $150.0 million. The amendment also set forth Secured Overnight Financing Rate (“SOFR”) as the benchmark rate and amended the financial covenant such that, commencing with September 30, 2022, its Consolidated First Lien Secured Leverage Ratio (as defined in the Senior Secured Credit Agreement) shall not exceed 6.50:1.00.

On December 27, 2023, the Company used proceeds from the Revolving Credit Facility to make a $50.0 million voluntary prepayment of outstanding borrowings under the Term Loan Facility.

As of December 31, 2023, the outstanding balance of the Term Loan Facility was $143.8 million. The balance of the Term Loan Facility is presented in the accompanying consolidated balance sheets net of deferred financing fees of $2.3 million and $4.2 million as of December 31, 2023 and 2022, respectively. The deferred financing fees are being amortized using the effective interest method. The effective interest rate as of December 31, 2023 and 2022, was 11.05% and 7.06%, respectively. As of December 31, 2023, the Revolving Credit Facility balance was $40.0 million and the Company had $109.7 million of availability under the Revolving Credit Facility.

Following the internal reorganization described under “Entity Simplification” in Note 1, on February 7, 2024, Shoals Intermediate Parent became the borrower under the Senior Secured Credit Agreement.

Interest Rate

The interest rates applicable to the loans under the Term Loan Facility are based on a rate of interest determined by reference to either: (i) a base rate plus an applicable margin equal to 4.75%, or (ii) a SOFR rate plus an applicable margin equal to, 5.75%.

The interest rates applicable to the loans under the Revolving Credit Facility are based on a rate of interest determined by reference to either (i) a base rate plus an applicable margin equal to 2.25% or (ii) a SOFR rate plus an applicable margin equal to 3.25%.

As of December 31, 2023, interest rates on the Term Loan Facility was SOFR plus 5.75%, or 11.28%, and the Revolving Credit Facility was SOFR plus 3.25%, or 8.76%.

Guarantees and Security

The obligations under the Senior Secured Credit Agreement are guaranteed by Shoals Intermediate Parent’s wholly owned domestic subsidiaries other than certain immaterial subsidiaries and other excluded subsidiaries. The obligations under the Senior Secured Credit Agreement are secured by a first priority security interest in substantially all of Shoals Intermediate Parent’s and the guarantors’ existing and future property and assets, including accounts receivable, inventory, equipment, general intangibles, intellectual property, investment property, other personal property, material owned real property, cash and proceeds of the foregoing.

Prepayments and Amortization

Loans under the Revolving Credit Facility and Term Loan Facility may be voluntarily prepaid, at Shoals Intermediate Parent's option, in whole, or in part, in each case without premium or penalty.

Notwithstanding anything to the contrary in the preceding paragraph, in the event that, on or after December 30, 2020 but prior to February 28, 2021, Shoals Holdings LLC made any prepayment (including with respect to any acceleration) of any loans under the Term Loan Facility, Shoals Holdings LLC would pay a premium on such prepayments made up to $150.0 million of the principal amount of such loans prepaid in an amount equal to 7.50% multiplied by the principal amount of such loans prepaid, which, if applicable, would be in lieu of any applicable prepayment premium set forth in the Senior Secured Credit Agreement; provided that no amortization payments or mandatory prepayments required under the Senior Secured Credit Agreement would be subject to the prepayment premium set forth in this paragraph. On January 29, 2021, the Company used proceeds from the IPO to repay $150.0 million of outstanding borrowings under the Term Loan Facility resulting in a prepayment premium of $11.3 million.

The Senior Secured Credit Agreement requires mandatory prepayments, but not permanent reductions of commitments thereunder, for excess cash flow, asset sales, subject to a right of reinvestment, and refinancing facilities.

The Term Loan Facility amortizes in equal quarterly installments in aggregate annual amounts equal to 1.00% per annum of the original principal amount of the loans funded thereunder. There is no scheduled amortization under the Revolving Credit Facility.

Restrictive Covenants and Other Matters

The Senior Secured Credit Agreement contains affirmative and negative covenants that are customary for financings of this type, including covenants that restrict our incurrence of indebtedness, incurrence of liens, dispositions, investments, acquisitions, restricted payments, and transactions with affiliates.

The Senior Secured Credit Agreement also includes customary events of default, including the occurrence of a change of control.

The Revolving Credit Facility also includes a Consolidated Leverage Ratio financial covenant that is tested on the last day of each fiscal quarter. To remain in compliance with the financial covenant, Shoals Intermediate Parent shall not permit the Consolidated Leverage Ratio, as of the last day of any quarter, to be greater than 6.50 to 1.00.

As of December 31, 2023, the Company was in compliance with all the required covenants.

11. Earnings (Loss) per Share ("EPS")

Basic EPS of Class A common stock is computed by dividing net income (loss) attributable to the Company by the weighted average number of shares of Class A common stock outstanding during the period. Diluted EPS of Class A common stock is computed similarly to basic EPS except the weighted average shares outstanding are increased to include additional shares from the exchange of Class B common stock under the if-converted method and the assumed exercise of any common stock equivalents using the treasury stock method, if dilutive. The Company's restricted/performance stock units are considered common stock equivalents for this purpose.

All earnings prior to and up to January 26, 2021, the date of the IPO, were entirely allocable to non-controlling interests and, as a result, EPS information is not applicable for reporting periods prior to this date.

Consequently, only the net income (loss) allocable to Shoals Technologies Group, Inc. from the period subsequent to January 26, 2021 is included in the net income (loss) attributable to the stockholders of Class A common stock for the period ended December 31, 2021.

Basic and diluted EPS of Class A common stock have been computed as follows (in thousands, except per share amounts):

	Year Ended December 31, 2023	Year Ended December 31, 2022	Period from January 27, 2021 to December 31, 2021
Numerator:			
Net income (loss) attributable to Shoals Technologies Group, Inc. - basic	$ 39,974	$ 127,611	$ (327)
Reallocation of net income attributable to non-controlling interests from the assumed exchange of Class B common stock	—	15,402	—
Net income (loss) attributable to Shoals Technologies Group, Inc. - diluted	$ 39,974	$ 143,013	$ (327)
Denominator:			
Weighted average shares of Class A common stock outstanding - basic	164,165	114,495	99,269
Effect of dilutive securities:			
Restricted / performance stock units	339	308	—
Class B common stock	—	52,828	—
Weighted average shares of Class A common stock outstanding - diluted	164,504	167,631	99,269
Earnings (Loss) per share of Class A common stock - basic	$ 0.24	$ 1.11	$ (0.00)
Earnings (Loss) per share of Class A common stock - diluted	$ 0.24	$ 0.85	$ (0.00)

For the period from January 27, 2021 to December 31, 2021 and the year ended December 31, 2023, the reallocation of net income attributable to non-controlling interest from the assumed exchange of Class B common stock has been excluded along with the dilutive effect of Class B common stock to the weighted average shares of Class A common stock outstanding – dilutive, as they were antidilutive.

12. Equity-Based Compensation

2021 Long-Term Incentive Plan

The Shoals Technologies Group, Inc. 2021 Long-Term Incentive Plan (the “2021 Incentive Plan”) became effective on January 26, 2021. The 2021 Incentive Plan authorized 8,768,124 new shares, subject to adjustment pursuant to the 2021 Incentive Plan.

Restricted Stock Units

During the years ended December 31, 2023 and 2022, and for the period from January 27, 2021 to December 31, 2021, the Company granted 413,873, 727,001, and 1,701,306 restricted stock units (“RSUs”), respectively, to certain employees, officers and directors of the Company. The RSUs had grant date fair values ranging from $14.45 to $28.26, $10.42 to $25.82, and $21.50 to $34.60, respectively, during the years ended December 31, 2023 and 2022 and for the period from January 27, 2021 to December 31, 2021. The RSUs generally vest ratably over either 3 or 4 years, except for some officer and employee grants for bonuses which immediately vested or vest over 1 year. There were a limited number of awards with immediate vesting.

Activity under the 2021 Incentive Plan for RSUs was as follows:

	Restricted Stock Units	Weighted Average Price
Outstanding, December 31, 2020	—	$ —
Granted	1,701,306	$ 27.61
Vested	(44,724)	$ 28.60
Forfeited	(23,738)	$ 29.46
Outstanding, December 31, 2021	1,632,844	$ 27.55
Granted	727,001	$ 13.78
Vested	(559,336)	$ 26.05
Forfeited	(63,534)	$ 25.56
Outstanding, December 31, 2022	1,736,975	$ 22.34
Granted	413,873	$ 24.78
Vested	(887,996)	$ 21.39
Forfeited	(91,386)	$ 23.05
Outstanding, December 31, 2023	1,171,466	$ 23.87

Performance Stock Units

During the years ended December 31, 2023 and 2022, the Company granted an aggregate of 205,585 and 256,305 Performance Stock Units (“PSUs”), respectively, to certain executives. The PSUs cliff vest after 3 years upon meeting certain revenue and gross profit targets and contain certain modifiers which could increase or decrease the ultimate number of Class A common stock issued to the executives. The PSUs were valued using the market value of the Class A common stock on the grant date ranging from $26.55 to $28.26 and $10.42 to $20.58, respectively, during the years ended December 31, 2023 and 2022.

Activity under the 2021 Incentive Plan for PSUs was as follows:

	Performance Stock Units	Weighted Average Price
Outstanding, December 31, 2021	—	$ —
Granted	256,305	$ 11.89
Vested	—	$ —
Forfeited	—	$ —
Outstanding, December 31, 2022	256,305	$ 11.89
Granted	205,585	$ 27.75
Vested	(67,101)	$ 11.86
Forfeited	(101,323)	$ 13.08
Outstanding, December 31, 2023	293,466	$ 22.59

During the years ended December 31, 2023, 2022 and 2021, the Company recognized $20.9 million, $16.1 million, and $11.3 million, respectively, in equity-based compensation. As of December 31, 2023, the Company had $20.8 million of unrecognized compensation costs which is expected to be recognized over a weighted average period of 1.5 years.

13. Stockholders' Equity

Amendment and Restatement of Certificate of Incorporation

As discussed in Note 1 - Organization and Business, on January 26, 2021, the Company's certificate of incorporation was amended and restated to, among other things, provide for the (i) authorization of 1,000,000,000 shares of Class A common stock with a par value of $0.00001 per share; (ii) authorization of 195,000,000 shares of Class B common stock with a par value of $0.00001 per share; (iii) authorization of 5,000,000 shares of preferred stock that may be issued from time to time by the Company's Board of Directors in one or more series; and (iv) establishment of a classified board of directors, divided into three classes, the members of which will serve for staggered terms.

Holders of Class A common stock and Class B common stock (if any shares are outstanding) are entitled to one vote per share and, except as otherwise required, will vote together as a single class on all matters on which stockholders generally are entitled to vote. Holders of Class B common stock were not entitled to receive dividends and will not be entitled to receive any distributions upon the liquidation, dissolution or winding up of the Company. Shares of Class B common stock were only issued to the extent necessary to maintain the one-to-one ratio between the number of LLC Interests held by the Continuing Equity Owners and the number of shares of Class B common stock held by the Continuing Equity Owners. Shares of Class B common stock were transferable only together with an equal number of LLC Interests. Shares of Class B common stock were canceled on a one-for-one basis if the Company, at the election of a Continuing Equity Owner, redeemed or exchanged LLC Interests. As of December 31, 2023, there were no shares of Class B common stock nor LLC Interests outstanding, and no shares of Class B common stock are expected to be issued in the future.

Initial Public Offering

As discussed in Note 1 - Organization and Business, on January 29, 2021, the Company closed an IPO of 11,550,000 shares of the Class A common stock at a public offering price of $25.00 per share. The Company received $278.8 million in proceeds, net of underwriting discounts and commissions, which was used to purchase 6,315,790 LLC Interests from Shoals Parent LLC and 5,234,210 LLC Interests from the founder and Class B unit holder in Shoals Parent LLC at a price per interest equal to the IPO price of the Class A common stock of $25.00 per share.

Shoals Parent LLC Recapitalization

As noted above, in connection with the IPO, the limited liability company agreement of Shoals Parent LLC was amended and restated to, among other things, (i) provide for a new single class of common membership interests in Shoals Parent LLC, or the LLC Interests; (ii) exchange all of the then existing membership interests of the Continuing Equity Owners for LLC Interests (iii) exchange all the then existing membership interest of the Class A Shoals Equity Owners for LLC Interests and (iv) appoint the Company as the sole managing member of Shoals Parent LLC.

The amendment also required Shoals Parent LLC to maintain, at all times, (i) a one-to-one ratio between the number of shares of Class A common stock issued by the Company and the number of LLC Interests owned by the Company and (ii) a one-to-one ratio between the number of shares of Class B common stock owned by the Continuing Equity Owners and the number of LLC Interests owned by the Continuing Equity Owners.

At the close of the IPO and through the second quarter of 2023, the Company had a majority economic interest in, was the sole managing member of, had the sole voting power in, and controlled the management of Shoals Parent LLC. On July 1, 2023, the Company contributed 100% of its LLC Interests to Shoals Intermediate Parent. Following the contribution, Shoals Parent LLC became a disregarded single member limited liability company, eliminating the Company's Up-C structure. Effective December 31, 2023, Shoals Parent LLC merged with and into Shoals Intermediate Parent with Shoals Intermediate Parent as the surviving corporation. See "Entity Simplification" in Note 1.

Acquisition of Former Shoals Equity Owners

On January 26, 2021, the Company acquired, by merger, an entity that was a member of Shoals Parent LLC, or the Class A Shoals Equity Owners, for which the Company issued 81,977,751 shares of Class A common stock as merger consideration. The only assets held by the Class A Shoals Equity Owners were 81,977,751 LLC Interests. Upon consummation of the Merger, the Company recognized the LLC Interests at carrying value, as the Merger is considered to be a transaction between entities under common control.

14. Non-Controlling Interests

As of the first quarter of 2023, the Company owned 100% of Shoals Parent LLC. The following table summarizes the effects of the changes in ownership in Shoals Parent LLC on equity for the years ended December 31, 2023, 2022, and 2021:

	Year Ended December 31, 2023	Year Ended December 31, 2022	Period from January 27, 2021 to December 31, 2021
Net income attributable to non-controlling interests	$ 2,687	$ 15,402	$ 1,596
Transfers to non-controlling interests:			
Decrease as a result of the Organizational Transactions	—	—	(88,644)
Increase as a result of newly issued LLC Interests in IPO	—	—	70,976
Increase as a result of activity under equity-based compensation plan	687	5,422	3,618
Decrease from tax distributions to non-controlling interests	(2,628)	(7,762)	(4,837)
Reallocation of non-controlling interests	(10,361)	6,604	7,240
Change from net income attributable to non-controlling interests and transfers to non-controlling interests	$ (9,615)	$ 19,666	$ (10,051)

Issuance of Additional LLC Interests

Under the LLC Agreement, the Company was required to cause Shoals Parent LLC to issue additional LLC Interests to the Company when the Company issued additional shares of Class A common stock. Other than as it relates to the issuance of Class A common stock in connection with an equity incentive program, the Company contributed to Shoals Parent LLC net proceeds and property, if any, received by the Company with respect to the issuance of such additional shares of Class A common stock. The Company caused Shoals Parent LLC to issue a number of LLC Interests equal to the number of shares of Class A common stock issued such that, at all times, the number of LLC Interests held by the Company was equal to the number of outstanding shares of Class A common stock. During the years ended December 31, 2023, 2022 and 2021, the Company caused Shoals Parent LLC to issue to the Company a total of 601,518, 480,116 and 40,665 LLC Interests, respectively, for the vesting of awards granted under the 2021 Long-Term Incentive Plan. On July 1, 2023, the Company contributed 100% of its LLC Interests in Shoals Parent LLC to its wholly-owned subsidiary, Shoals Intermediate. Following the contribution, Shoals Parent LLC became a disregarded single member limited liability company, eliminating the Up-C structure. Effective December 31, 2023, Shoals Parent LLC merged with and into Shoals Intermediate Parent with Shoals Intermediate Parent as the surviving corporation. See “Entity Simplification” in Note 1.

Distributions for Taxes

As a limited liability company (treated as a partnership for income tax purposes), Shoals Parent LLC did not incur significant federal, state or local income taxes, as these taxes were primarily the obligations of its members. As authorized by the LLC Agreement, Shoals Parent LLC was required to distribute cash, to the extent that Shoals Parent LLC had cash available, on a pro rata basis, to its members to the extent necessary to cover the members’ tax liabilities, if any, with respect to each member’s share of Shoals Parent LLC taxable earnings. Shoals Parent LLC made such tax distributions to its members quarterly, based on the single highest marginal tax rate applicable to its members applied to projected year-to-date taxable income. During the years ended December 31, 2023, 2022 and 2021, tax distributions to non-controlling LLC Interests holders were $2.6 million, $7.8 million and $4.8 million, respectively.

Other Distributions

Pursuant to the LLC Agreement, the Company had the right to determine when distributions would be made to LLC members and the amount of any such distributions. If the Company authorized a distribution, such distribution was made to the members of the LLC (including the Company) pro rata in accordance with the percentages of their respective LLC units.

15. Leases

Effective January 1, 2022, the Company adopted ASC 842 Leases using the modified retrospective approach. The Company elected the use of the package of practical expedients permitted under the transition guidance which allows the Company not to reassess whether a contract contains a lease, carry forward the historical lease classification and not reassess initial direct lease costs. The Company also elected to apply the short-term measurement and recognition exemption in which the right-of-use (“ROU”) assets and lease liabilities are not recognized for short-term leases. Adoption of this standard resulted in recording of net operating lease ROU assets and corresponding operating lease liabilities of $1.2 million and $1.2 million, respectively. The standard did not materially affect the consolidated statements of operations and had no impact on the consolidated statements of cash flows.

The following table summarizes the balances as it relates to leases at the end of the period (in thousands):

	Location on the Consolidated Balance Sheets	December 31, 2023	2022
Right-of-use asset	Other assets	$ 2,871	$ 4,060
Lease liability, current portion	Accrued expenses and other	$ 1,140	$ 1,162
Lease liability, net current portion	Other long-term liabilities	2,116	3,256
Total lease liability		$ 3,256	$ 4,418

The Company determines if an arrangement is a lease at its inception. Operating lease right-of-use ("ROU") assets and lease liabilities are recognized at commencement date based on the present value of lease payments over the lease term. Operating lease ROU assets also include any initial direct costs and prepayments less lease incentives. Lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise such options. As the Company's leases generally do not provide an implicit rate, the Company uses its collateralized incremental borrowing rate based on the information available at the lease commencement date, including lease term, in determining the present value of lease payments. Lease expense for these leases is recognized on a straight-line basis over the lease term.

Operating lease arrangements are comprised primarily of real estate and equipment agreements for which the ROU assets are included in other assets and the corresponding lease liabilities, depending on their maturity, are included in accrued expenses and other or other long-term liabilities in the consolidated balance sheets. The Company also elected to apply the practical expedient to consider non-lease components as a part of the lease. The Company's leases contain certain non-lease components for common area maintenance which are variable on a month to month basis and as such recorded as a variable lease expense as incurred.

The details of the Company's operating leases are as follows (in thousands):

	Year Ended December 31, 2023	2022
Operating lease expense	$ 1,189	$ 1,126
Variable lease expense	168	142
Short-term lease expense	61	177
Total lease expense	$ 1,418	$ 1,445

The following table presents the maturities of lease liabilities as of December 31, 2023 (in thousands):

For the Year Ended December 31,	Operating Leases
2024	$ 1,261
2025	958
2026	950
2027	325
Total lease payments	3,494
Less: Imputed lease interest	(238)
Total lease liabilities	$ 3,256

The Company’s weighted average remaining lease-term and weighted average discount rate are as follows:

	Year Ended December 31,	
	2023	2022
Weighted average remaining lease-term	3.0 years	3.9 years
Weighted average discount rate	4.5 %	4.5 %

Supplemental cash flow and other information related to operating leases are as follows (in thousands):

	Year Ended December 31,	
	2023	2022
Operating cash flows from operating leases	$ 1,566	$ 1,295
Non-cash investing activities:		
Lease liabilities arising from obtaining right-of-use assets	$ —	$ 5,229

16. Commitments and Contingencies

Litigation

The Company is from time to time subject to legal proceedings and claims, which arise in the normal course of its business. In the opinion of management and legal counsel, except as disclosed below, the amount of losses or gains that may be sustained, if any, would not have a material effect on the financial position, results of operations or cash flows of the Company. The Company records legal costs associated with loss contingencies as incurred.

Intellectual Property Litigation

On May 4, 2023, the Company filed a patent infringement complaint with the U.S. International Trade Commission (“ITC”) against Hikam America, Inc., a corporation based in Chula Vista, California, and its related foreign entities (together, “Hikam”), and Voltage LLC, a limited liability company based in Chapel Hill, North Carolina, and a related foreign entity (together, “Voltage”). The complaint primarily requests that the ITC (i) investigate unlawful imports of certain photovoltaic connectors and components that the Company alleges infringe on two valid and enforceable patents owned by the Company related to improved connectors for solar panel arrays and (ii) issue a limited exclusion order and a cease and desist order against the Hikam respondents and the Voltage respondents to bar them from importing, marketing, distributing, selling, offering for sale, licensing, advertising, transferring, or otherwise using the infringing photovoltaic connectors and components in and into the United States. On July 19, 2023, the Company filed an amended complaint with the ITC, adding allegations that Voltage also infringes a third, recently-issued patent owned by the Company. Also on May 4, 2023, the Company filed complaints against Hikam in the U.S. District Court for the Southern District of California, and against Voltage in the U.S. District Court for the Middle District of North Carolina on the same subject matter. On June 28, 2023, the Company filed an amended complaint in the District Court action against Voltage alleging that they also infringe on a third, recently-issued patent owned by the Company. These complaints seek injunctive relief and damages for reasonable royalty and lost profits. The District Court actions have been stayed pending the final disposition of the ITC investigation. The Administrative Law Judge issued a Claim Construction Ruling on February 21, 2024. As a result of the Claim Construction Ruling, in order to streamline the case and focus our limited time during the evidentiary hearing and as recommended by the ITC's Investigative Attorney to preserve public resources, the Company filed an unopposed motion on February

26, 2024, and such motion was granted on February 28, 2024, to remove one of the three asserted patents covering duplicative subject matter against Voltage. An evidentiary hearing in the ITC investigation has been scheduled for March 18 through 22, 2024. The ITC has set a target date for completion of the investigation of November 12, 2024. The Company intends to vigorously pursue these actions. However, at this stage, the Company is unable to predict the outcome or impact on its business and financial results. The Company is accounting for this matter as a gain contingency, and will record any such gain in future periods if and when the contingency is resolved, in accordance with ASC 450 Contingencies.

Wire Insulation Shrinkback Litigation

On October 31, 2023, the Company filed a complaint in the U.S. District Court for the Middle District of Tennessee, Nashville Division, against Prysmian. The complaint alleges damages caused by defective red wire Prysmian sold the Company between 2020 through approximately 2022. The defective red wire has presented unacceptable levels of wire insulation shrinkback. The complaint includes, among other causes of action, product liability, breach of contract, breach of warranty, indemnity, and negligence claims. The Company seeks compensatory and punitive damages, recovery of all costs and expenses incurred by the Company in connection with the identification, repair and replacement of the defective wire, and other legal and equitable relief. The Company intends to vigorously pursue this action, and as the Company continues to assess this matter, it may, from time to time, amend, update or supplement the complaint to, among other things, increase the damages sought for various purposes, including in accordance with increases to the Company's estimated warranty liability and related expenses related to this matter. At this stage, the Company is unable to predict the outcome of this litigation or the impact on its business and financial results. The Company is accounting for this matter as a gain contingency, and will record any such gain in future periods if and when the contingency is resolved, in accordance with ASC 450 Contingencies.

Surety Bonds

The Company provides surety bonds to various parties as required for certain transactions initiated during the ordinary course of business to guarantee the Company's performance in accordance with contractual or legal obligations. As of December 31, 2023, the maximum potential payment obligation with regard to surety bonds was $27.6 million.

Employee Benefit Plan

The Company has a 401(k) retirement plan for substantially all of its employees based on certain eligibility requirements. Effective January 1, 2021 the Company began making matching contributions to the plan and may also provide discretionary contributions to the plan at the discretion of management. No such discretionary contributions have been made since inception of the plan. For the years ended December 31, 2023, 2022 and 2021, the Company made matching contributions totaling $0.5 million, $0.3 million and $0.2 million, respectively.

17. Income Taxes

The components of income before income taxes are as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Domestic	$ 54,935	$ 152,000	$ 4,030
Foreign	—	—	—
Income before income taxes	$ 54,935	$ 152,000	$ 4,030

The components of income tax expense are as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Current income taxes:			
Federal	$ —	$ —	$ —
State	915	554	631
Foreign	—	—	—
Total current income taxes	915	554	631
Deferred income taxes:			
Federal	10,146	13,639	397
State	1,188	(5,233)	(1,873)
Foreign	—	—	—
Total deferred income taxes	11,334	8,406	(1,476)
Other tax expense	25	27	931
Income tax expense	$ 12,274	$ 8,987	$ 86

The differences between income taxes expected at the U.S. federal statutory income tax rate and the reported income tax expense are summarized as follows (in thousands):

	Year Ended December 31,		
	2023	2022	2021
U.S. federal income taxes at statutory rate	$ 11,537	$ 31,920	$ 846
State and local income tax, net of federal benefit	1,811	4,786	(1,380)
Permanent tax adjustments	101	(6)	356
Equity-based compensation	447	685	(14)
Non-deductible officers' compensation	968	397	—
Pre-IPO income	—	—	(562)
Non-controlling interests	(564)	(3,289)	(342)
Termination of TRA	—	(15,905)	349
Termination of Up-C structure	(2,347)	—	—
Remeasurement of deferred taxes	—	(6,775)	(1,939)
Change in valuation allowance	988	(1,983)	1,983
Other	(667)	(843)	789
Income tax expense	$ 12,274	$ 8,987	$ 86

The components of the deferred tax assets and liabilities are as follows (in thousands):

	Year Ended December 31, 2023	Year Ended December 31, 2022
Deferred tax assets:		
Investment in Shoals Parent	$ —	$ 284,729
Inventory, net	1,677	—
Property, plant & equipment, net	709	—
Goodwill	450,830	—
Accrued expenses and other	2,310	—
Warranty liability	12,824	—
Net operating loss	5,380	4,626
Equity-based compensation	2,869	2,030
Other	4,090	249
Total deferred tax assets	480,689	291,634
Less valuation allowance	(988)	—
Total deferred tax assets, net	479,701	291,634
Deferred tax liabilities:		
Other intangible assets, net	(10,636)	—
Other	(870)	—
Total deferred tax liabilities	(11,506)	—
Net deferred tax asset	$ 468,195	$ 291,634

During the year ended December 31, 2023, the Company acquired the remaining non-controlling interest in Shoals Parent LLC and contributed 100% of its interest to its wholly-owned subsidiary Shoals Intermediate Parent, thereby eliminating the Company's Up-C structure. As a result of the contribution, Shoals Parent LLC ceased to be treated as a partnership for U.S. federal income tax purposes and became a single-member disregarded entity. Accordingly, the Company converted its outside basis differences in its investment in Shoals Parent LLC and remeasured its deferred taxes using the inside basis differences of Shoals Parent LLC's assets and liabilities. The conversion from outside to inside basis differences resulted in a net deferred tax benefit of approximately $5.1 million, which has been recorded in the accompanying consolidated statement of operations.

As of December 31, 2023, the Company has $23.7 million and $7.3 million federal and state net operating loss carryforwards, respectively. If not utilized, $23.7 million of the federal net operating loss can be carried forward indefinitely. If not utilized, $1.7 million of the state net operating loss can be carried forward indefinitely and $5.6 million will expire between 2036-2043.

At December 31, 2023, the Company determined that a valuation allowance related to land and other non-amortizable intangibles in the amount of $1.0 million was required, as it is not more-likely than not that these deferred tax assets would be realized.

In August 2022, the U.S. President signed into law the Inflation Reduction Act of 2022 (the "IRA"), which revised U.S. tax law by, among other things, including a new corporate alternative minimum tax (the "CAMT") of 15% on certain large corporations, imposing a 1% excise tax on stock buybacks, and providing incentives to address climate change, including the introduction of advanced manufacturing production tax credits. The provisions of the IRA are generally effective for tax years beginning after 2022. Given the complexities of the IRA, including recently issued guidance from the Internal Revenue Service and regulations from the U.S.

Treasury Department, we will continue to monitor these developments and evaluate the potential future impact to our results of operations.

As of December 31, 2023 and 2022, the Company has recorded $1.0 million of gross unrecognized tax benefits inclusive of interest and penalties, all of which, if recognized, would favorably impact the effective tax rate. We do not expect a significant change in our uncertain tax benefits in the next twelve months. The Company recognizes penalties and interest related to uncertain tax positions within the provision (benefit) for income taxes line in the accompanying consolidated statements of operations.

We are generally subject to tax examinations by U.S. federal and state tax authorities for years beginning after 2019 and 2018, respectively.

18. Payable Pursuant to the Tax Receivable Agreement

The Company had a TRA with the Founder, a "related party," and a former equity owner of Shoals Investment CTB (the "TRA Owners") that provided for the payment by the Company to the TRA Owners (or their permitted assignees) of 85% of the amount of the benefits, if any, that the Company actually realized or was deemed to realize as a result of (i) the Company's allocable share of existing tax basis acquired in connection with the Organizational Transactions (including Blocker's share of existing tax basis) and increases to such allocable share of existing tax basis, (ii) certain increases in the tax basis of assets of Shoals Parent LLC and its subsidiaries resulting from purchases or exchanges of LLC Interests, and (iii) certain other tax benefits related to the Company entering into the TRA, including those attributable to payments made under the TRA. These contractual payment obligations were obligations of the Company and not of Shoals Parent LLC. The Company's payable pursuant to the TRA was determined on an undiscounted basis in accordance with ASC 450, *Contingencies*, since the contractual payment obligations were deemed to be probable and reasonably estimable. For purposes of the TRA, the benefit deemed realized by the Company was computed by comparing the actual income tax liability of the Company (calculated with certain assumptions) to the amount of such taxes that the Company would have been required to pay had there been no increase to the tax basis of the assets of Shoals Parent LLC as a result of the purchases or exchanges, and had the Company not entered into the TRA.

When estimating the expected tax rate to use in order to determine the tax benefit expected to be recognized from the Company's increased tax basis as a result of exchanges of LLC Interests by the TRA Owners, the Company continuously monitored changes in its overall tax posture, including changes resulting from new legislation and changes as a result of new jurisdictions in which the Company was subject to tax.

On November 29, 2022, the Company entered into an amendment to the TRA (the "TRA Amendment"), dated as of January 29, 2021, pursuant to which the parties thereto agreed to grant the Company a right to terminate the TRA until December 31, 2022 (the "TRA Termination Right") in exchange for a termination consideration of $58.0 million, payable in cash. The Company reassessed the liability related to the payable pursuant to the TRA at the TRA Amendment date and concluded it was probable that the expected payments related to the payable pursuant to the TRA had changed. As a result of this change, the Company remeasured the payable pursuant to the TRA to $58.0 million on the TRA Amendment date, resulting in a gain on the termination of the TRA of $110.9 million. As part of the evaluation to determine if the gain should be recognized as income in the consolidated statement of operations or a stockholder contribution the Company concluded the termination of the TRA was negotiated in an arm's length transaction with the majority owner of the TRA, a third party, and both the third party and the related party received the same value based upon ownership percentage, and therefore, the gain should be recorded in the consolidated statement of operations. The Company exercised its TRA Termination Right, and the TRA was terminated on December 6, 2022.

The following table reflects the changes to the Company's payable pursuant to the TRA (in thousands):

	Year Ended December 31,		
	2023	2022	2021
Beginning balance	$ —	$ 156,374	$ —
Additions to TRA:			
Exchange of LLC Interests for Class A common stock	—	7,761	140,293
Merger of Shoals investment CTB	—	—	14,418
Adjustment for change in estimated effective income tax rate	—	6,675	1,663
Adjustment related to TRA termination	—	(112,810)	—
Early termination payment of TRA	—	(58,000)	—
Payable pursuant to TRA	$ —	$ —	$ 156,374

19. Revenue Recognition

Disaggregation of revenue

Based on Topic 606 provisions, the Company disaggregates its revenue from contracts with customers based on product type. Revenue by product type is disaggregated between system solutions and components. System solutions are contracts under which the Company provides multiple products typically in connection with the design and specification of an entire EBOS system. Components represents sales of individual components.

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

	Year Ended December 31,		
	2023	2022	2021
System solutions	$ 398,384	$ 254,415	$ 155,818
Components	90,555	72,525	57,394
Total revenue	$ 488,939	$ 326,940	$ 213,212

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables, retainage, and deferred revenue on the consolidated balance sheets, recorded on a contract-by-contract basis at the end of each reporting period.

The Company's contract balances consist of the following (in thousands):

	Location on the Consolidated Balance Sheets	December 31, 2023	December 31, 2022
Billed accounts receivable	Accounts receivable, net	$ 102,232	$ 48,571
Retainage	Accounts receivable, net	$ 4,886	$ 2,004
Unbilled receivables	Unbilled receivables	$ 40,136	$ 16,713
Deferred revenue	Deferred revenue	$ 22,228	$ 23,259

The majority of the Company's contract amounts are billed as work progresses in accordance with agreed-upon contractual terms, which generally coincide with the shipment of one or more phases of the project. Billing sometimes occurs subsequent to revenue recognition, resulting in unbilled receivables. The changes in unbilled receivables relate to fluctuations in the timing of billings for the Company's revenue recognized over-time. As of December 31, 2021, billed accounts receivable and unbilled receivables were $26.7 million and $13.5 million, respectively.

Certain contracts contain retainage provisions. Retainage represents a contract asset for the portion of the contract price earned by the Company for work performed but held for payment by the customer as a form of security until the Company obtains specified milestones. The Company typically bills retainage amounts as work is performed. Retainage provisions are not considered a significant financing component because they are intended to protect the customer in the event that some or all of the obligations under the contract are not completed. The changes in retainage relate to fluctuations in the timing of retainage billings and achievement of specified milestones. As of December 31, 2021, retainage was $4.8 million.

The Company also receives deferred revenue in the form of customer deposits. The customer deposits are short term as the related performance obligations are typically fulfilled within 12 months. The changes in deferred revenue relate to fluctuations in the timing of customer deposits and completion of performance obligations. During the year ended December 31, 2023, $22.1 million, or 95% of deferred revenue recorded as of December 31, 2022, was recognized in revenue. During the year ended December 31, 2022, $1.8 million, or 100% of deferred revenue recorded as of December 31, 2021, was recognized in revenue.

20. Related Party Transactions

Our Founder was a party to the TRA and received approximately 45% of the TRA Termination Consideration. See Note 18 - Payable Pursuant to the Tax Receivable Agreement.

As part of the LLC Agreement we were required to pay tax distributions to the non-controlling interest holders, some of which were considered related parties at the time of distribution. See Note 14 - Non-Controlling Interests.

21. Subsequent Events

Prepayment of Term Loan Facility

On January 19, 2024, the Company used proceeds from the Revolving Credit Facility to make a $100.0 million voluntary prepayment of outstanding borrowings under the Term Loan Facility.

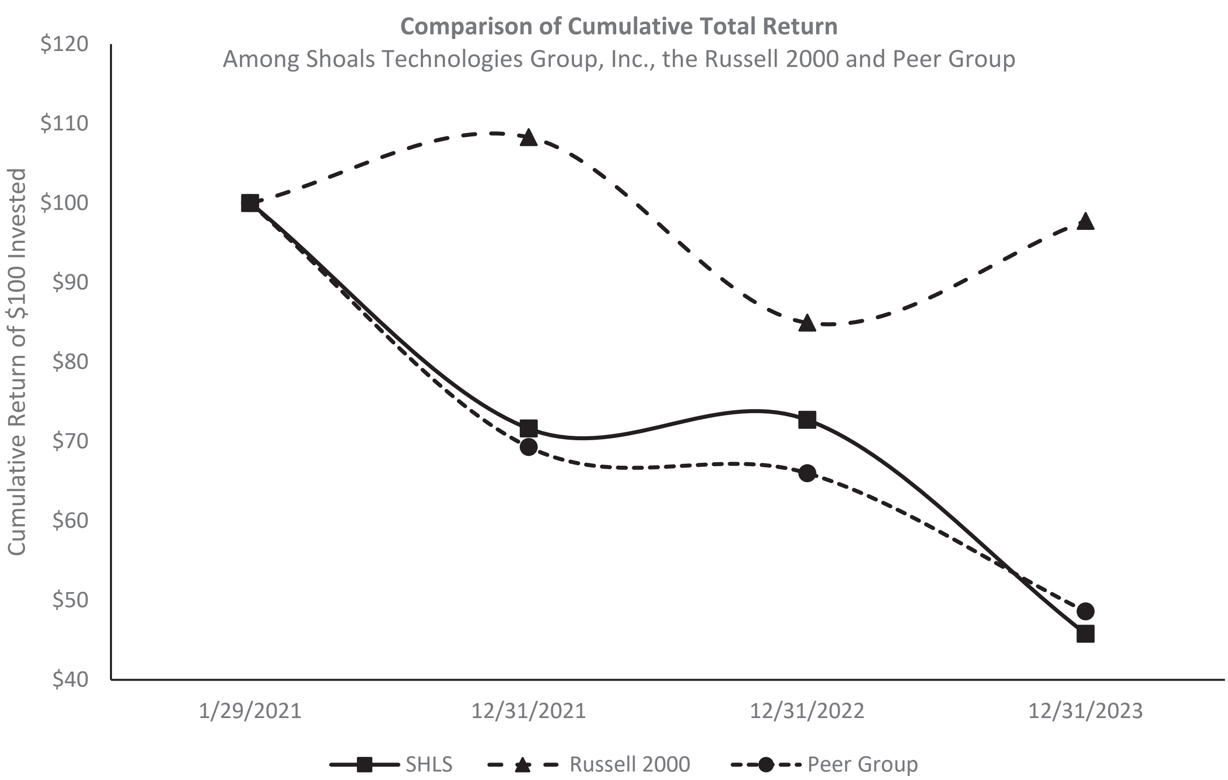
Execution of Operating Lease Agreement

On February 7, 2024 the Company entered into a lease agreement. The commencement date of the lease is February 7, 2024 and the rent commencement date is the earlier of (i) the date upon which a certificate of occupancy is issued to the tenant, or (ii) August 1, 2024. Under the terms of the lease agreement, the lease term is 140 months from the rent commencement date, with the right to extend the lease term for up to 3 periods of 5 years each. Annualized rent during the first 12 months following the rent commencement date is $4.9 million, with annual escalators throughout the remaining lease term.

SHAREHOLDER RETURN PERFORMANCE GRAPH

The following graph compares the cumulative total return on our Class A common stock with that of the Russell 2000 Index and our peer group during each annual accounting period from January 29, 2021 (the date our common stock began trading on the Nasdaq Global Market) through December 31, 2023. Our peer group is the MAC Global Solar Energy Index (SUNIDX), which is comprised of companies in the solar energy industry, and the Russell 2000 Index. The graph assumes $100 was invested in our Class A common stock in each of the aforementioned indices at the close of market on January 29, 2021, and assumes the reinvestment of any dividends. The returns shown are based on historical results and are not intended to suggest future performance.

Comparison of Shareholder Returns among Shoals Technologies Group, Inc., the Russell 2000 Index and our Peer Group



	Jan 29, 2021	Dec 31, 2021	Dec 31, 2022	Dec 31, 2023
Shoals Technologies Group, Inc.	$ 100.00	$ 71.62	$ 72.71	$ 45.80
Russell 2000	$ 100.00	$ 108.28	$ 84.94	$ 97.75
Peer Group	$ 100.00	$ 69.30	$ 66.01	$ 48.60

COMPANY INFORMATION

ANNUAL MEETING
Shoals Technologies Group, Inc.'s 2024 Annual Meeting will be held on May 2, 2024 at 10:00 a.m., Eastern Time, virtually, via live audio webcast at www.virtualshareholdermeeting.com/SHLS2024

FORM 10-K ANNUAL REPORT
A paper copy of the Shoals Technologies Group, Inc. Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission, including financial statements and financial statement schedules, but without exhibits, is available without charge to shareholders upon written request to: Mehgan Peetz, Corporate Secretary at 1400 Shoals Way, Portland, TN 37148. Copies of any exhibit will be forwarded upon written request, subject to a reasonable charge for copying and mailing.

Copies of our Annual Report on Form 10-K are also available, without charge, by visiting our website https://investors.shoals.com

COMMON STOCK LISTED (SHLS)
Nasdaq Global Market

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Our Board of Directors

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Chair of the Board of Directors
Director, Array Technologies

Brandon Moss
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Peter Wilver NCG
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Ty Daul A
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HR Executive at Performance and Talent Solutions

Robert Julian A*
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Consultant, The RealReal, Inc.

Jeannette Mills C
Director
Executive Vice President and Chief External Relations Officer, Tennessee Valley Authority

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A Audit Committee
C Compensation Committee
NCG Nominating & Corporate Governance Committee
**Denotes Chair of Committee*

Our Executive Officers

Brandon Moss
Chief Executive Officer

Dominic Bardos
Chief Financial Officer

Mehgan Peetz
Chief Legal Officer and Corporate Secretary

Jeffery Tolnar
President

Inez Lund
Chief Accounting Officer